Katherine Douglas Appellant References

1

LATE DIST

From: Cynthia Elkins <CElkins@biologicaldiversity.org>
Sent: Wednesday, February 19, 2025 11:24 PM
To: sbcob
Subject: Vol. 8 - References in support of appeal - SYU transfers, case no. 24APL-00025
Attachments: Vol 8_CBD References - SYU Appeal (Docs 66 - 68).pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Volume 8 of 8 attached

Dear Supervisors and Clerk Alexander,

Please see the attached references submitted on behalf of the Center for Biological Diversity and Wishtoyo Foundation, which are submitted in support of our appeal of the Planning Commission's approval of Sable Offshore Corp.'s application to transfer the Final Development Permits for the Santa Ynez Unit, Pacific Offshore Pipeline Company Gas Plant, and Las Flores Pipeline System. Our comments were submitted under a separate cover.

Hard copies of the attached are also being sent by FedEx, and they are also available to download at the following link:

https://www.dropbox.com/scl/fo/bilsgpxu2mi3tltl4ct9u/AO88HVAbP3ZuC5KiHT3bTN0?rlkey=pq3yyzbipp074lqqe5w8x8cuh&st=uwx4ibd0&dl=0

Please include these references as part of your administrative record for this matter, and please contact me if there are any questions or problems in receiving them.

Thank you for your time and assistance, and for your consideration of our comments and concerns.

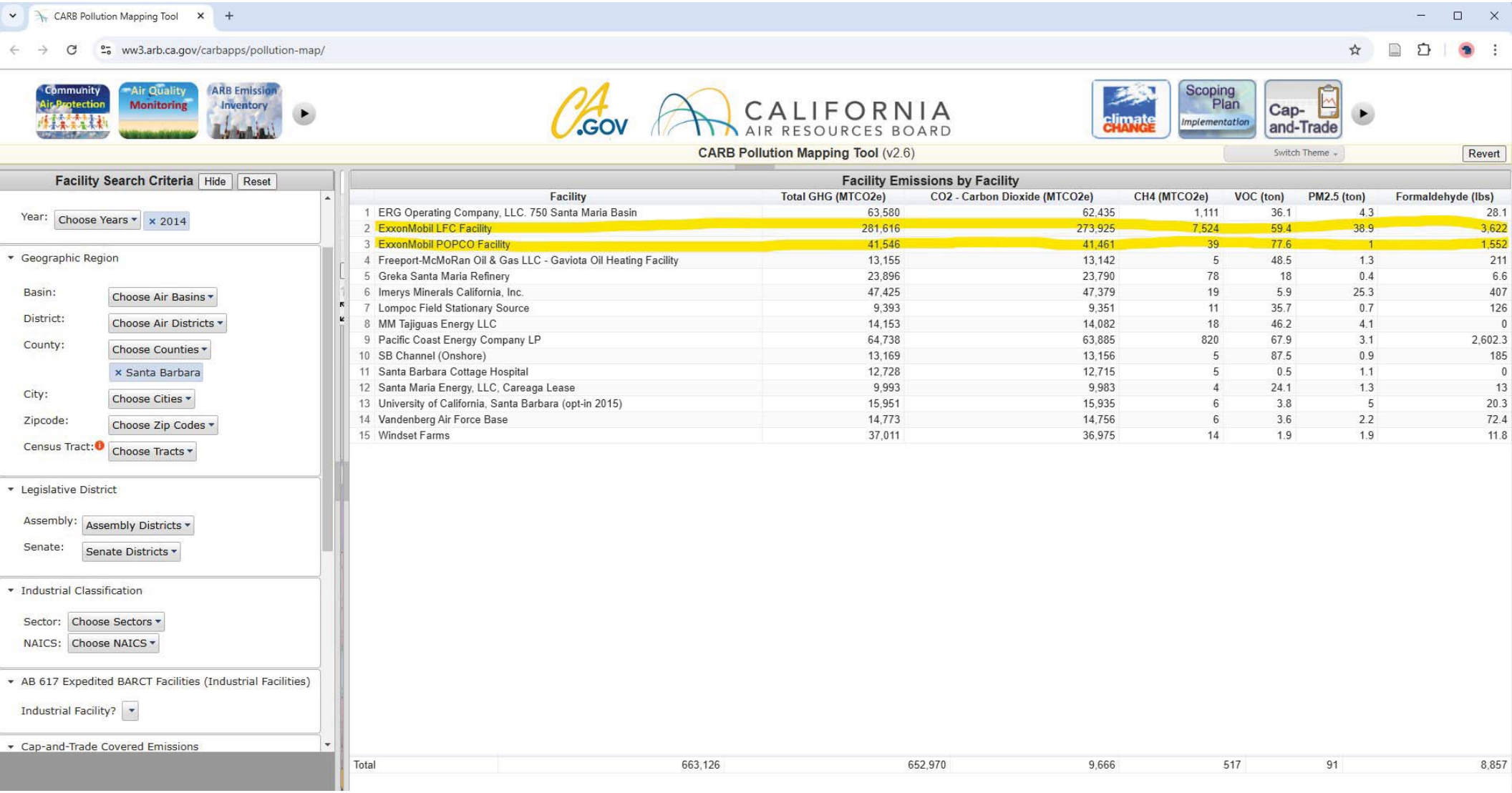
Sincerely,
Cynthia Elkins, Senior Paralegal
Center for Biological Diversity
celkins@biologicaldiversity.org
(707) 358 – 0430

REFERENCES

Volume 8
Documents 66–68

Submitted on Behalf of the Center for Biological Diversity and Wishtoyo Foundation

Case No. 24APL-00025



Facility Emissions by Facility

	Facility	Total GHG (MTCO2e)	CO2 - Carbon Dioxide (MTCO2e)	CH4 (MTCO2e)	VOC (ton)	PM2.5 (ton)	Formaldehyde (lbs)
1	ERG Operating Company, LLC. 750 Santa Maria Basin	63,580	62,435	1,111	36.1	4.3	28.1
2	ExxonMobil LFC Facility	281,616	273,925	7,524	59.4	38.9	3,622
3	ExxonMobil POPCO Facility	41,546	41,461	39	77.6	1	1,552
4	Freeport-McMoRan Oil & Gas LLC - Gaviota Oil Heating Facility	13,155	13,142	5	48.5	1.3	211
5	Greka Santa Maria Refinery	23,896	23,790	78	18	0.4	6.6
6	Imerys Minerals California, Inc.	47,425	47,379	19	5.9	25.3	407
7	Lompoc Field Stationary Source	9,393	9,351	11	35.7	0.7	126
8	MM Tajiguas Energy LLC	14,153	14,082	18	46.2	4.1	0
9	Pacific Coast Energy Company LP	64,738	63,885	820	67.9	3.1	2,602.3
10	SB Channel (Onshore)	13,169	13,156	5	87.5	0.9	185
11	Santa Barbara Cottage Hospital	12,728	12,715	5	0.5	1.1	0
12	Santa Maria Energy, LLC, Careaga Lease	9,993	9,983	4	24.1	1.3	13
13	University of California, Santa Barbara (opt-in 2015)	15,951	15,935	6	3.8	5	20.3
14	Vandenberg Air Force Base	14,773	14,756	6	3.6	2.2	72.4
15	Windset Farms	37,011	36,975	14	1.9	1.9	11.8
Total		663,126	652,970	9,666	517	91	8,857

Pacific Pipeline Company

LINE 901 & LINE 903
REPLACEMENT PROJECT
2ND REVISED
BIOLOGICAL RESOURCES ASSESSMENT

October 5, 2020

Prepared for:

Pacific Pipeline Company

SCS ENGINEERS

inc

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Environmental & Biological Consulting | Planning

Pacific Pipeline Company
LINE 901 AND LINE 903 REPLACEMENT PROJECT
2ND REVISED BIOLOGICAL RESOURCES ASSESSMENT

1.0 EXECUTIVE SUMMARY

The Pacific Pipeline Company (PPC), Line 901 and Line 903 replacement project (proposed Project) runs approximately 123 miles from Las Flores Canyon on the Gaviota Coast of Santa Barbara County, through the Cuyama Valley mostly in San Luis Obispo County, to PPC's existing Pentland Delivery Point in the southwestern San Joaquin Valley in Kern County. See Figures 1 and 2 in Appendix A. PPC proposes to replace the entire reach of the two pipelines along with installation of supporting access roads, valves, and pump stations, and abandon the existing pipelines in-place. The existing Line 901 pipeline is 24 inches in diameter and is designed to transport crude oil approximately 10.9 miles from the Santa Ynez Unit (SYU) in Las Flores Canyon, west along the Gaviota Coast, and terminates at the existing Gaviota Pump Station. The existing Line 903 pipeline is 30 inches in diameter and is designed to transport crude oil approximately 113.5 miles north to the existing Sisquoc Pump Station, then east through the Los Padres National Forest and Cuyama Valley, delivering crude to the existing Pentland Delivery Point in the San Joaquin Valley. The Project proposes to abandon both Line 901 and 903 in place with the exception of sections of either pipeline which can be utilized as casing for the smaller diameter replacement pipeline installation to limit new ground disturbance in various locations supporting sensitive resources. Where required by agreement with private landowners, permit conditions, or for technical reasons, some pipeline segments may be removed. The proposed replacement Line 901R pipeline would consist of a twelve (12) inch diameter uninsulated steel pipeline, which is approximately 10.7 miles in length between the existing Las Flores Pump Station and the existing Gaviota Pump Station. A sixteen (16) inch diameter steel pipeline, which is approximately 38.6 miles in length between the existing Gaviota Pump Station and the existing Sisquoc Pump Station. The proposed replacement Line 903R pipeline would consist of a fourteen (14) inch diameter uninsulated steel pipeline, which is approximately 74.1 miles in length between the existing Sisquoc Pump Station and the existing Pentland Delivery Point.

Sage Institute, Inc. (SII) conducted background data review and detailed remote sensing evaluation of habitat types to establish existing conditions in November 2016. SII conducted extensive biological and botanical resources field reconnaissance surveys along nearly the entire project alignment (with the exception landowner restrictions of an approximately 1,400 linear foot reach of alignment east of Tepusquet Road evaluated from available aerial photography) between January and August 2017 to verify plant community mapping, to establish habitat suitability and document special-status plant and wildlife species occurrences, and to map oak trees within a 300-foot wide *Biological Study Area (BSA)* along the existing pipeline alignment and right of way (ROW). SII biologists conducted a floristic inventory and rare plant survey along nearly the entire project alignment where landowner access was granted, and a focused blunt-nosed leopard lizard habitat assessment survey along the project alignment within the range of the species. Focused Gaviota tarplant surveys were conducted in June 2019 and June 2020 to add additional data on that species occurrence along the proposed Project alignment. The *BSA* for this biological assessment includes the 150-foot distance on each side of the existing pipeline alignment (300-foot total; approximately 4,418.88 acres).

As currently proposed, approximately 120.3 out of 123 miles (98%) of the proposed Project would run parallel to the existing Line 901 and 903 pipeline rights-of-way where previous construction impacts and habitat maintenance have already occurred since original pipeline development in the early 1990s. One major planned deviation from the existing corridor, totaling approximately 2.5 miles of new pipeline corridor, is currently proposed in order to reroute the replacement pipeline around the densely populated western expansion of the City of Buellton. Several smaller deviations are proposed to further limit impacts to environmental resources. The project impact analysis is based on the following key elements of the project design (See Figure 1.1 and 1.2 below).

The proposed Project includes a 100-foot wide *Temporary Construction Corridor* that includes within those limits a 50-foot *Permanent Maintenance Corridor*. The *Temporary Construction Corridor* disturbance would generally be 100-feet in width. In certain instances, the *Temporary Construction Corridor* narrows to less than 100-feet in width to avoid environmental impacts such as oak tree removal. Conversely, in certain limited instances the *Temporary Construction Corridor* exceeds 100-feet in width to provide workspace and secondary staging areas within proximity of the pipeline. Within the *Temporary Construction Corridor* approximately 1,492.34 acres will be temporarily disturbed during project development, 770.06 acres of which fall beyond the boundaries of the *Permanent Maintenance Corridor*. After project construction is complete, this *Temporary Construction Corridor* will be revegetated with plant species appropriate to each region as detailed in the restoration plan and 15 site-specific examples included as Appendix E. As a result, nearly all of this disturbance area will be restored to a naturalized or native habitat of some type similar to existing conditions with the permanent exclusion of woody vegetation (trees and shrubs) from the *Permanent Maintenance Corridor*, and the *Permanent Facility Development* (see Figure 1-3 below) areas described in further detail below.

The *Permanent Maintenance Corridor* disturbance would generally be 50-feet in width (25 feet on each side of pipeline route). After the pipeline is lowered in, the excavation would be backfilled with native soil or padding material and the topsoil will be replaced. The *Temporary Construction Corridor* will be recontoured and revegetated to match surrounding conditions as much as possible. However, within the approximate 717.92-acre *Permanent Maintenance Corridor*, the pipeline right-of-way would be maintained free of mature trees and other large woody vegetation to prevent root borne damage to the pipeline and allow access for long-term maintenance, repairs, and leak detection. Despite the exclusion of large woody vegetation, the *Permanent Maintenance Corridor* would be occupied with native and/or naturalized grasses, herbaceous plant species, and the lack of fencing or other manmade obstructions would allow unrestricted wildlife movement and access across the expanses of the habitat mosaic that surrounds the pipeline alignment.

riparian corridors and drainages along the Gaviota Coast Ecoregion that would be subject to the Coastal/State one-parameter wetland definition.

Work in waters of the U.S./State that would involve fill or alteration of the drainages or wetlands to the extent they occur in the drainages within the project alignment may require permits/authorizations from the Corps, RWQCB, and CDFW. The proposed Project includes the use of bore techniques or use of the existing pipeline as casing under the three major rivers and most of the major creeks to avoid impacts that would otherwise occur from an open trench approach. The remaining crossings appear to be small rocky drainages and swales with herbaceous cover that can be readily restored to original conditions after pipeline installation.

5.6 COASTAL ZONE ENVIRONMENTALLY SENSITIVE HABITAT AREAS (ESHA)

The California Legislature established the "Coastal Zone" as the land and water area of the State of California from the Oregon border to Mexico. The Coastal Zone extends inland generally 1,000 yards from the mean high tide line of the sea. In significant coastal estuarine, habitat, and recreational areas it extends inland to the first major ridgeline paralleling the sea or five miles from the mean high tide line of the sea, whichever is less, and in developed urban areas the zone generally extends inland less than 1,000 yards. Along the Gaviota Coast Ecoregion the Coastal Zone appears to follow the first major ridgeline and then extends well up Gaviota Creek as shown on Figures 3.1, 4.1. 4.2, 4.3, 4.4, and 4.5.

The California Coastal Act defines Environmentally Sensitive Habitat Areas (ESHA) as any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments (Coastal Act Sections 30107.5 and 30240). ESHAs include among other criteria, habitats supporting rare, threatened, and/or endangered species, and riparian and wetland habitats. Santa Barbara County has mapped ESHAs along the Gaviota Coast Ecoregion correlating mostly with the riparian corridors known to support special-status species (see Section 5.7 below). There are 17.28 acres total of County-mapped ESHA within the BSA associated with 11 pipeline drainage crossings. Eight (8) of the crossings will be trenchless HDD construction so no ESHA impacts are anticipated. Three (3) will be open cut trenched crossings: D-1 0.18 acre permanent, 0.17 acre temporary; D-3 0.17 acre permanent, 0.24 acre temporary; and D-27 0.28 acre permanent, 0.29 acre temporary.

5.7 SPECIAL-STATUS SPECIES AND NATURAL COMMUNITIES OF SPECIAL CONCERN

Special-status species are those plants and animals listed, proposed for listing, or candidates for listing as threatened or endangered by the U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS) under the federal Endangered Species Act (FESA); those considered "species of concern" by the USFWS; those listed under California's Fully Protected Species statutes, or listed or proposed for listing as rare, threatened, or endangered by the CDFW under the California Endangered Species Act (CESA); animals designated as "Species of Special Concern" by CDFW; and plants with a ranking of 1B, 2, and 4 of the California Native Plant Society (CNPS) *Inventory of Rare and Endangered Vascular Plants of California.* Natural Communities of Special Concern are habitat types considered rare and worthy of tracking in the CNDDB by the CDFW because of their limited distribution or historic loss over time.

The search and review of the CNDDB, BISON database, CNPS Inventory, and CalFlora revealed 62 special-status plant species, seven natural communities of special concern, and 50 special-status wildlife species

with recorded occurrences within the 10-mile search radius along the *BSA*. The search radius covered at least every USGS 7.5-minute topographic map that touches the *BSA*. In Appendix A, Figures 3.1 through 3.6, and Figures 4.1 through 4.37 provide ecoregion and habitat maps respectively, showing CNDDB (only on Figures 3.1 to 3.6), BISON, and SII survey observations (within the BSA) of special-status plant and wildlife species that have recorded occurrences within ten miles of the *BSA* alignment. The extensive walking field surveys along nearly the entire project alignment (over 3,000 biologist person hours) provided observations of special-status plant and wildlife species when encountered, and defined the plant communities and suitable habitat elements and conditions to refine the distribution of potential occurrence for special-status species that were evaluated in the recorded observations of the CNDDB and BISON.

The following briefly describes or summarizes the special-status species issues, and the actual observed or potential for occurrence within the *BSA*. Table B-3 in Appendix B, includes scientific and common names, listing status, habitat requirements, and observations and/or likelihood for occurrence within the *BSA* for the special-status species discussed below.

5.8 SPECIAL-STATUS BOTANICAL RESOURCES

The CNDDB search revealed the recorded occurrences of 62 special-status plant species and seven natural communities of special concern within a 10-mile radius of the *BSA* alignment. The natural communities of special concern, southern California steelhead stream, southern coast cottonwood willow riparian forest, southern willow scrub, and valley needlegrass grassland occur and are variously mapped in the *BSA* within the Gaviota Coast, Coastal Hills, and Sierra Madre Mountains ecoregions. Valley saltbush scrub occurs and is variously mapped in the *BSA* throughout the Cuyama Valley, Temblor Range, and San Joaquin Valley ecoregions. Southern coast live oak riparian forest and southern vernal pool natural communities of special concern were not observed within the *BSA*.

The *BSA* supports an abundance of purple needlegrass considered valley needlegrass grassland within the non-native annal grassland mosaics of the *BSA* throughout the Gaviota Coast, Coastal Hills, Sierra Madre, and western Cuyama Valley ecoregions where greater than 10 percent cover of purple needlegrass occurs. Figures 3 and Figures 4 show the numerous occurrences of valley needlegrass grassland patches recorded during the SII field surveys. The *BSA* supports a small amount of mulefat thickets throughout the Coastal Hills, Sierra Madre, and Cuyama Valley ecoregions with the western end of the Cuyama Valley being the most prominent area supporting mulefat scrub. Central coast riparian scrub was observed along many prominent creeks/drainages throughout the *BSA*, especially in the Gaviota Coast and Coastal Hills Ecoregion. The Santa Ynez River banks are surrounded by dense, riparian jungle and is the most prominent area within the *BSA* that contains that amount of riparian habitat. The *BSA* occurs within the Santa Barbara Vernal Pool Region designated by the CDFW. Vernal pool habitat consists of seasonal wetlands (i.e., areas that pond water during the wet season and go dry during the summer months) that may provide habitat for special-status aquatic plant and animal species. No isolated vernal pools or seasonal wetlands were observed within the project alignment during the 2017 surveys.

The extensive list of 62 special-status plant species recorded in the CNDDB and BISON speaks to the 123 mile-long project *BSA* that traverses three counties and six ecoregions from the Gaviota coast to the inland southwestern San Joaquin Valley. Only six special-status plant species were actually observed along the project alignment. The special-status plant species occurrences recorded in the CNDDB and BISON are commonly associated with a specific soil type, habitat, and/or elevation range that dictates the range or microhabitat of the species such as wetlands, serpentine soil, heavy clay, shale or sandy

soils. A complete list of the vascular plant species observed during surveys within the *BSA* from January to July 2017 is provided in Appendix B Table B-1. As noted in the methods section, surveys were conducted along the *BSA* at peak flowering time for identification and observations of both common and special-status plant species along the project alignment also supported by the CNDDB and BISON species occurrence records. The SII observations, along with the CNDDB and BISON records in the mapping data set will assist with focusing the preconstruction field survey efforts as recommended mitigation measures to avoid and minimize impacts on these special-status plant species.

Six special-status plant species have been observed within the *BSA* with SII surveys, CNDDB and BISON locations shown on the Figures 3 and Figures 4 sequence of habitat maps. Five of these species are formally listed as rare, threatened or endangered, and one a CNPS rank 1.B species. The Gaviota tarplant (*Deinandra increscens* ssp. *villosa)* has designated Critical Habitat along the project alignment on the Gaviota Coast Ecoregion and was observed within the *BSA* during SII surveys at previously documented and undocumented locations.

Additional focused surveys for the Gaviota tarplant were completed on June 4 & 5, 2019 and June 9 & 17, 2020 within a 50 to 300-foot corridor (dependent on landowner access approval) along the pipeline alignment from the Tajiguas Landfill through the Gaviota tarplant USFWS designated Critical Habitat to the Highway 101 proposed Project alignment undercrossing south of the Gaviota rest stop. There are sixteen occurrences of Gaviota tarplant observed in the BSA during the 2019 and 2020 SII field surveys that showed the species in bloom, noticeable, and readily identifiable. Ten of these occurrences are within the 100-foot *Temporary Construction Corridor* for a total extent of 0.28 acre and estimated 705 individuals observed. Sixteen additional observations were recorded during the 2020 surveys outside of the *Temporary Construction Corridor* with landowner access with a total extent of approximately 0.49 acre with 979 estimated individuals observed. Table B-4 in Appendix B provides a detailed list of SII 2019 and 2020 survey results, and the BISON and CNDDB occurrence records. The "Observation ID" in Table B-4 can be correlated to the Gaviota tarplant observations mapped on Figures 7.1 through 7.9 in Appendix A.

The easternmost area with Gaviota tarplant observations/occurrences within designated Critical Habitat (Figures 7.4 and 7.5) is an active cattle ranch with nonnative grassland habitat dominating the open hillside where the pipeline passes through the ranch. A large part of the CNDDB occurrence polygon is within the CDFW Gaviota Tarplant Ecological Reserve dedicated as mitigation for the original pipeline construction. A dense covering of wild oats (*Avena barbata),* rattail fescue (*Festuca myuros*) and soft chess (*Bromus hordeaceus)* are the most abundant grasses with mustards and various thistles growing in the stand. Some native coastal scrub shrubs are scattered through the grassland and on the slopes of the drainages that cross the terrace. The occurrences of Gaviota tarplant were observed in areas where the vegetation was sparse and there was an increase in native annual plant species cover. Observations generally did not extend into adjacent dense non-native annual grassland thatch and weed cover. These observations support the understanding that open ground habitat is necessary for germination and growth of the Gaviota tarplant as it does not compete well against the rapid growth of dense non-native annual grassland species.

The next parcel to the west was not actively grazed and supported the dense grassland vegetation but was dominated by the nonnative perennial veldt grass (*Ehrharta calycina*) that was dense with few openings in the grass canopy. The grassland vegetation gradually changes from veldt grass to a purple needlegrass (*Stipa pulchra*) perennial grassland that is considered more suitable for the Gaviota tarplant. The Gaviota tarplant observations occurred along a somewhat unmaintained sparsely vegetated ranch

road running along the pipeline corridor. Additional observations outside the BSA were recorded during the SII 2020 surveys. See Table B-4 and Figure 7.6.

The remainder of the survey was conducted along the pipeline corridor from the Freeport MacMoRan Heating Oil Facility west to the Highway 101 intersection with no Gaviota tarplant observations during the SII 2019 and 2020 focused surveys. The pipe continues through the Freeport MacMoRan facility avoiding habitat impacts down a ravine and up onto a grassland terrace, south of the Santa Barbara fire station, west across rolling hills and down a steep slope to the highway crossing. The section around the fire station contains suitable habitat for the Gaviota tarplant but no populations were observed along the pipeline corridor or in the adjacent grassland. The pipeline corridor crossing the rolling hills occurs on fairly steep slopes that are covered with mustard, thistles, fennel, veldt grass and areas of coastal sage scrub that are generally unsuitable for the Gaviota tarplant. While there are CNDDB polygons and BISON recorded occurrences west of the Freeport MacMoRan facility, no other Gaviota tarplant populations were observed in this section during the SII focused 2019 or 2020 surveys.

Given the variability of yearly expressions of the Gaviota tarplant from annual and seasonal rainfall conditions, the USFWS mapped designated Critical Habitat and CNDDB/BISON/SII occurrences shown on Figures 3.1, 3.2, 4.4, 4.5, and 7.1 through 7.9 are used as the basis for the most likely locations and extent of potential encounters with Gaviota tarplant during project implementation.

The remaining four observations of listed plants were in the Cuyama Valley, Temblor Range, and San Joaquin Valley ecoregions and incudes the San Joaquin woolly threads (*Monolopia congdonii*), Kern mallow (*Eremalche parryii* ssp. *kernensis*), California jewel flower (*Caulanthus californicus*), and Lemmon's jewelflower (*Caulanthus lemmonii*). The locations of the above observed special-status plants (SII, CNDDB, BISON) are shown on Figures 3.4, 3.5, and 3.6, and Figures 4.24 through 4.37. The mapped extent of the California jewelflower is a conservative extent for planning purposes and impact analysis for both confirmed identification and likely *Caulanthus californicus* observations of early phenology plants in flower but lacking characteristic fruits. There is expected to be widely varied fluctuations in the location and extent of the yearly expression of these annual plant species at the southern toe of the Caliente Range. Lemmon's jewelflower (*Caulanthus lemmonii*; CNPS 1.B.) was observed in the Cuyama Valley variously associated with the above species.

The Lompoc yerba santa (*Eriodictyon capitatum)* added to the review list by the CDFW was not observed during any of the field surveys, in particular along the Gaviota Coast or Coastal Hills ecoregions. The known locations of this species are well documented in the CNDDB and BISON databases that are greater than five miles from the pipeline alignment to the west on Vandenberg AFB and northwest in Orcutt Hill area. As such, it was not present in the appropriate database searches used to develop Table B-3 because the species does not occur in proximity to the project alignment. This is a large perennial shrub species that would have been readily noticeable and identifiable during any of the field surveys through these ecoregions. The only other formally listed species with CNDDB/BISON recorded occurrences was the seaside bird's-beak (*Cordylanthus rigidus* ssp. *littoralis*) that was not observed during any surveys.

Table B-3 provides an extensive list of annual species and herbaceous perennials (annual above ground vegetative expressions) that are not formally listed but have CNPS Rank 1 or 4 rating as special-status species. These are commonly associated with a specific soil type, habitat, and/or elevation range that dictates the range or microhabitat of the species such as wetlands, serpentine soil, alkaline soils, or heavy clay, shale or sandy soils. The micro-habitat information for the numerous annual or herbaceous perennial special-status plant species with CNDDB recorded occurrences within ten-miles of the *BSA* that were not observed during the 2017 field surveys is provided in Table B-3 in Appendix B.

Hoover's Bent Grass (*Agrostis hooveri*) is a perennial grass preferring sandy rocky sites as a microclimate in chaparral, cismontane woodland, closed-cone coniferous forest, and valley and foothill grassland habitats. Hoover's bent grass was not observed during the 2017 field surveys.

Perennial shrub special-status plant species that prefer granitic soils, sandstone/sandstone outcrops, and heavy adobe-clay and/or serpentine soils include San Gabriel manzanita (*Arctostaphylos glandulosa* ssp. *gabrielensis*), La Purisima manzanita (*Arctostaphylos purissima*), Refugio manzanita (*Arctostaphylos refugioensis*), sand mesa manzanita (*Arctostaphylos rudis*), elegant and cottony buckwheat (*Eriogonum elegans, E. gossypinum*), mesa horkelia (*Horkelia cuneata* var. *puberula*), and Santa Barbara honeysuckle (*Lonicera subspicata* var. *subspicata*). These perennial species would be noticeable and identifiable at almost any time of the year and were not observed within the *BSA* during the 2017 surveys.

5.9 SPECIAL-STATUS WILDLIFE

The CNDDB/BISON search revealed 50 recorded occurrences of special-status wildlife species within the ten-mile search radius of the *BSA* that includes 19 species that are formally listed as threatened, endangered, or candidate for listing. The special-status species occurring in for the Sierra Madre ecoregion of the Los Padres National Forest lands provided by the USFS were all included in the CNDDB query. The extensive list of special-status wildlife species recorded in the CNDDB speaks to the 123-mile-long project *BSA* that traverses three counties and six ecoregions from the Gaviota coast to the inland southwestern San Joaquin Valley. Special status wildlife species known from the six ecoregions evaluated for this study are discussed by groups based upon evolutionary classifications (invertebrates to mammals). Habitat preferences, specific habitat use requirements (i.e. aquatic, oak woodland, riparian, scrub, etc.), and whether the species was observed during the extensive SII walking field surveys of nearly the entire project alignment is also addressed. A complete list of the wildlife species observed during SII field surveys conducted during 2017 is provided in Table B-2. Table B-3 lists the CNDDB/BISON/USFS special-status wildlife species recorded in the six ecoregions that could potentially occur within the *BSA* and includes an evaluation of whether these species are likely to occur or if they were observed. See Figures 3.1 through 3.6 for the general locations of SII observations, and CNDDB/BISON recorded occurrences of special-status wildlife and the detailed habitat maps Figures 4.1 to 4.37 for locations of special-status wildlife observed during the SII field surveys, CNDDB/BISON species occurrence records. The SII observations, along with the CNDDB and BISON records in the mapping data set will assist with focusing the preconstruction field survey efforts as recommended mitigation measures to avoid and minimize impacts on these special-status wildlife species.

Invertebrates

The crotch bumble bee *(Bombus crotchii)* has no federal protective status, however, on June 18, 2019 the CDFW designated it as a candidate species affording it CESA protection for one year as a candidate species before a final determination for listing is made. The Xerces Society listing petition suggests the decline of the species is mostly attributable to the agricultural conversion in the Central Valley and urbanization in Southern California. The crotch bumble bee nests in the ground and inhabits open grassland and scrub habitats in lower elevations and valleys from Northern California down to Baja. They require loose textured sandy soils for burrowing and non-specific food sources from the many plant genera including but not limited to *Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia,* and *Eriogonum*. The flowering plants of the grasslands and shrub/scrub habitats in the expanse of native habitats in the six ecoregions represent suitable habitat within the currently known range for this species.

The longhorn fairy shrimp *(Branchinecta longiantenna)* is listed as endangered by the USFW. The longhorn fairy shrimp was not observed in the *BSA*. The longhorn fairy shrimp occurs in astatic rain filled pools with recorded occurrences from seasonal ponds in the Carrizo Plain. There were no vernal pools or suitable seasonal wetland/pond habitat observed within the *BSA* alignment to support longhorn fairy shrimp.

The vernal pool fairy shrimp *(Branchinecta lynchi)* is listed as a threatened species by the USFW. The vernal pool fairy shrimp occurs in astatic rain filled pools and are endemic to the grasslands of the Central Valley, Central Coast mountains, and the South Coast mountains. The CNDDB has recorded occurrences in the Coastal Hills Ecoregion and the USFS has mapped occurrences in the Sierra Madre Mountains Ecoregion. There were no vernal pools or suitable seasonal wetland/pond habitat observed within the *BSA* alignment to support vernal pool fairy shrimp.

The monarch butterfly *(Danaus plexippus)* uses protected groves of eucalyptus, Monterey pine or cypress trees for autumn and winter roost sites that extend along the California coast from Mendocino to Baja California, Mexico. Several persistent and established winter roost sites are recorded in the CNDDB in tree groves along the Gaviota Coast Ecoregion.

The El Segundo blue butterfly (Euphilotes battoides allyni) has been presumed to occur from coastal areas of Vandenberg AFB and requires the exclusive host plant, seacliff (dune) buckwheat (*Eriogonum parvifolium*), to occur. The known locations of this species are well documented outside the pipeline alignment to the west on Vandenberg AFB and the Burton Mesa chaparral. As such, it was not present in the appropriate database searches used to develop BRA Table B-3. Seacliff buckwheat was observed rarely the Gaviota Coast, Coastal Hills, and Sierra Madre ecoregions during field surveys in the coastal scrub habitats mostly as scattered individuals among abundant California buckwheat. The project alignment is well outside the current known range of the species on Vandenberg AFB. Most importantly, a recent genetic study determined that the putative El Segundo blue butterflies in the Vandenberg AFB and Burton Mesa Chaparral areas are not *E. B allyni* and their lineage is more closely related to geographically proximate populations of the *Eupilotes battoides* group in Ventura County (Dupuis, J.R et. al. 2020). Therefore, they are not afforded the Endangered Species Act protections. The El Segundo blue butterfly is not expected to occur in the BSA and was not requested for consideration for the threatened and endangered species take coverage list that was approved by the resource agencies in November 2018.

The Kern primrose sphinx moth *(Euproserpinus euterpe)* is federally listed as threatened. They require recent or fresh alluvial soils in sandy washes and are host specific to the annual Mojave sun cup *(Camissonia campestris)* for food that was observed during field surveys. There are CNDDB occurrences associated with full USGS 7.5-minute quadrangles indicating the range of the Kern primrose sphinx moth extends from the Cuyama Valley, Temblor Range, and San Joaquin Valley ecoregions. The quadrangle map range of potential occurrences in project alignment ecoregions are shown on Figure 3.4, 3.5, and Figures 4.32 to 4.35.

Fish

Southern California steelhead *(Oncorhynchus mykiss irideus)* distinct population segment *(Oncorhynchus mykiss irideus)* is listed as threatened by the NMFS. Steelhead require perennial stream aquatic habitat and barrier free passage to the Pacific Ocean. Landlocked fish are considered to be

rainbow trout. The best aquatic habitat for steelhead supports pools, riffles, and runs with over hanging vegetation for shade and cover, and invertebrates for food. There are known steelhead occurrences in Refugio Creek, Tajiguas Creek, Arroyo Hondo, San Onofre Creek, and Gaviota Creek along the Gaviota Coast Ecoregion. There is potential for steelhead to occur within other intermittent and perennial streams with riparian habitat and barrier free passage to the Pacific Ocean. Steelhead have been recorded in the Santa Ynez River that runs through the Coastal Hills Ecoregion. Steelhead designated Critical Habitat within the proposed Project alignment in the South Coast Hydrologic Unit includes drainages D-3 (Canada Del Refugio), D-9 (Arroyo Hondo), D-17 (Canada San Onofre), and D-24 (Canada de la Gaviota). Steelhead designated Critical Habitat within the proposed Project alignment in the Santa Ynez Hydrologic Unit includes the Santa Ynez River and in the Santa Maria Hydrologic Unit includes the Sisquoc River. More detailed information on steelhead for the proposed Project is provided in the, *Focused Biological Assessment – Steelhead Southern California DPS,* included as Appendix G (Exhibit I to the Corps permit application).

The tidewater goby *(Eucyclogbius newberryi)* is listed as endangered by the USFW. The tidewater goby prefers brackish shallow water lagoons at the lower end of stream systems along the coast with still but not stagnant water and high levels of oxygen. They can be found upwards of 0.5 mile upstream of the ocean where conditions are favorable lacking barriers or steep stream gradient. There are CNDDB and BISON recorded occurrences along the Gaviota Coast Ecoregion in Gaviota Creek (designated Critical Habitat), Arroyo Quemado, Arroyo Hondo (designated Critical Habitat), Canada de Agua Caliente, Canada de Santa Anita, Canada de Alegria, and the Refugio lagoon. While generally there is not suitable habitat within the *BSA* as it occurs upstream and outside of the brackish water or low gradient stream conditions required by the tide water goby. However, there remains a possibility of occurrence in the creek crossing areas of the *BSA* even though all are upstream of culverts or other creek passages under Highway 101. Designated Critical Habitat near the proposed Project alignment includes Unit SB-7, Arroyo Hondo, and Unit SB-6 Gaviota Creek. All critical habitat units are on the south side (ocean side) of Highway 101 and do not extend to the proposed Project alignment.

Amphibians

The Californian tiger salamander (*Ambystoma californiense*; CTS) is listed as endangered by the USFWS and threatened by the CDFW. CTS utilize temporary ponds/vernal pools found widely scattered in the grassland or open oak woodland habitats for breeding and small mammal burrows in uplands for dry season refuge. Adult and juvenile CTS aestivate during the dry season and spend most of their life in underground burrows of California ground squirrels, Botta's pocket gophers, and other small mammal burrows. Adults emerge from underground retreats to feed, disperse, and migrate to suitable ephemeral ponds for breeding with the onset of wet season rains. For breeding and larval development CTS require vernal pools and other seasonal ponds (natural or human-made) where ponded water is present for a minimum of three to four months. Juvenile CTS will take the next five to seven years to mature and will continue to seek refuge in small mammal burrows. Typically, movement from subterranean refuge sites to breeding sites (vernal pools and ponds) occurs following major, relatively warm late fall or early winter rains (late November through December) but may also respond to a rainfall pattern in the spring. The current CTS habitat evaluation guidance by the USFWS and CDFW suggests CTS may disperse up to1.3 miles from known breeding ponds into uplands presuming there are no positive barriers. The USFWS 2016 Recovery Plan CTS pond and metapopulation data has been used initially as an appropriate and acceptable basis for assessing regional CTS habitats and it is not within the purview of this study to assess presence of potential CTS aquatic or upland habitats on private lands outside of the *BSA*. Critical Habitat has been designated for the CTS well to the west and outside of the proposed Project alignment.

The proposed Project alignment in the Coastal Hills Ecoregion runs 0.3 mile outside of the USFWS identified CTS East Los Alamos metapopulation and near the northeastern edge but outside of the West Los Alamos/Careaga metapopulation areas and outside of all other metapopulations in northern Santa Barbara County. The nearest USFWS identified known CTS breeding pond is 3.2 miles away from the proposed Project alignment on the south side of Highway 101 well beyond the maximum known CTS dispersal distance. Review and habitat mapping using high resolution aerial photography did not show any potential seasonal ponds within the *BSA*.

The USFWS 2016 Recovery Plan identified one potential breeding pond (ZACA-5) 0.75 mile (1,175m) from the proposed Project alignment on the north side of Highway 101 that falls within the 1.3 mile assumed CTS dispersal distance (see Figures 5.1 and 5.2). With Highway 101 acting as a positive barrier to CTS dispersal movement, approximately 7,920 linear feet of proposed Project alignment falls within the 1.3-mile CTS dispersal distance from potential breeding pond ZACA-5. There is no evidence that this USFWS identified potential pond does in fact support breeding CTS.

During initial USFWS review and evaluation of the proposed Project for CTS, the USFWS identified five additional potential CTS breeding ponds within the 1.3 mile presumed maximum upland dispersal distance from the project alignment that were not included in the 2016 CTS Recovery Plan (see Figures 5.1 and 5.2). These have been identified and named by the USFWS with distance from the project alignment as follows:

- SISQ-22 (470'; 0.09 mi; 143m)
- SISQ-23 (4,650'; 0.88 mi; 1,417m)
- SISQ-24 (2,970'; 0.56 mi; 905m)
- SISQ-26 (2,370'; 0.45 mi; 722m)
- SISQ-32 (2,985'; 0.57 mi; 910m)

Approximately 17,424 linear feet of proposed Project alignment falls within the 1.3-mile CTS dispersal distance from these potential SISQ breeding ponds (see Figures 5.1 and 5.2). There is no evidence that these USFWS identified potential ponds do in fact support breeding CTS.

The arroyo toad *(Anaxyrus californicus)* is federally listed as endangered by the USFWS. They are associated with large river floodplains with sandy banks and terraces with willows, cottonwoods, and sycamore trees. The slow-moving backwaters and isolated pools of the floodplain are used for breeding and riparian habitat for refuge. The CNDDB shows an occurrence in the Sisquoc River upstream of the pipeline crossing. Arroyo toad range includes the Cuyama River at the *BSA* pipeline crossing near Highway 166. Designated Critical Habitat Unit 2 is in drainage D-59 (Sisquoc River) outside of the *BSA* upstream of the proposed Project alignment with an USFS observations in the head waters of the Sisquoc River. As such, there is suitable habitat for the arroyo toad within the *BSA* where it crosses the Sisquoc River and Cuyama River.

The foothill yellow-legged frog *(Rana boylii)* is on the BLM and USFW sensitive species list, and the South Coast Clad was recently listed as Endangered by the CDFW. They prefer partly shaded shallow rocky streams and riffles with some cobble for egg laying. There is one CNDDB recorded occurrence on the Gaviota Coast upstream the project *BSA* indicating potential to occur within the *BSA* in suitable riparian or aquatic habitats.

The California red-legged frog *(Rana draytonii)* is listed as threatened by the USFW. They are a highly aquatic species found in ponds and streams with or without riparian or wetland vegetation. They require lasting water sources for breeding and forage on invertebrates, small fish, mice and frogs. This species is known for overland movements of over one mile between aquatic habitats dispersing under moist conditions such as dense fog or rain. There are CNDDB/BISON and USFWS files recorded occurrences in many of the creeks and drainages in the BSA including Canada del Corral Canyon , Canada de la Vina, Caquada Del Refugio, Tajiguas Creek, Arroyo Quemado, Arroyo de la Pila, Arroyo Hondo, Canada San Onofre, Canada de la Gaviota, unnamed drainages D-39, the Sisquoc River, unnamed drainage D-46, and downstream of the Cuyama River crossing indicating potential to occur where suitable aquatic habitats persist in the Gaviota Coast, Coastal Hills, Sierra Madre, and Cuyama Valley ecoregions. There is USFWS designated Critical Habitat Unit STB-6 and Unit STB-5 in the Gaviota Coast and Coastal Hills ecoregions.

The western spadefoot toad *(Spea hammondii)* is a CDFW species of special concern and BLM sensitive species. They require seasonal pools for reproduction and uplands for estivation during the dry season in grasslands and valley-foothill hardwood woodland habitats. There is suitable breeding habitat for the spadefoot toad with numerous stock ponds and drainages in the Coastal Hills Ecoregion. There are CNDDB recorded occurrences outside of the *BSA* in the Coastal Hills and Cuyama Valley (Chimineas Ranch) ecoregions.

The Coast Range newt *(Taricha torosa torosa)* is a CDFW species of special concern that is primarily a terrestrial amphibian that migrates upwards of 1 km to breed in ponds, reservoirs and slow-moving streams. They forage in and out of the water as adults consuming mostly small invertebrates and occasional amphibian eggs and larvae. Upland terrestrial habitat use is varied but mesic (moist) conditions of woodlands or shrublands are preferred. There is a strip of Coast Range newt range along the Gaviota coast along the *BSA* with an extensive overall California range from San Diego County north to Mendocino County. There is one CNDDB recorded occurrence outside the *BSA* in Cuarta Canyon with the potential to occur within the *BSA* where there are suitable aquatic habitats and upland conditions.

Reptiles

The silvery legless lizard *(Anniela pulchra pulchra)* is a BLM and USFW sensitive species and a CDFW species of special concern. This lizard is closely associated with sandy or very friable loamy soils under coastal scrub or woodland vegetation with soil moisture and vegetative cover being essential. Foraging mostly on insects it uses the loose soils or sand to conceal itself to ambush its prey. The range silvery legless lizard may be found from the Gaviota Coast to the Cuyama Valley ecoregions where suitable habitat conditions are present as documented by the CNDDB and BISON database.

The western pond turtle (*Emys marmorta)* is a BLM sensitive species and a CDFW species of special concern. They can be found in a variety of habitats that have permanent ponded or flowing water with vegetation and structures for cover and basking. There are CNDDB and BISON recorded occurrences outside the *BSA* but in drainages that cross the project alignment in the Gaviota Coast, Coast Hills, Sierra Madre and the Cuyama Valley ecoregions. The western pond turtle is likely to occur in suitable habitat where the alignment crosses perennial water courses or where permanent deep pools remain throughout the year. The southern western pond turtle ranges from San Diego to Santa Cruz counties.

The blunt-nosed leopard lizard (*Gambelia sila;* BNLL) is listed as endangered by the USFW and CDFW, and a CDFW Fully Protected species. The blunt-nosed leopard lizard is a resident of sparsely vegetated alkali and desert scrubs habitats that utilizes mammal burrows, shrubs and structures such as fence posts for cover. They are not known to excavate their own burrows and require small mammals as an

active part of the habitat. They feed primarily on other lizards with the side-blotched lizard *(Uta stansburiana)* a common species throughout the Cuyama Valley, Temblor Range, and San Joaquin Valley ecoregions. The southern range for BNLL starts where the Cuyama River valley transitions from canyon habitat to grasslands, rolling hills, and alluvial PPC along the south toe of the Caliente Range. Within the *BSA* there are CNDDB recorded occurrences to the north of the Cuyama Valley and Temblor Range ecoregions, south of New Cuyama over a mile from the project alignment, and within the San Joaquin Valley Ecoregion. Observations of BNLL were only in the San Joaquin Valley Ecoregion in areas of contiguous suitable habitat with previous CNDDB recorded occurrences. See Figures 3.4, 3.5, 3.6., and 4.29 to 4.37.

The comprehensive habitat assessment was conducted, with field surveys for the BNLL exceeding 650 staff hours, to attempt detection of the BNLL throughout its range within the *BSA*. The potential range in the Cuyama Valley was established through consultation with the CDFW staff. A habitat suitability ranking was established during the BNLL surveys to identify areas supporting the highest to poorest suitability based on habitat elements typically associated with the BNLL. SII biologists used a habitat suitability scale of excellent, good, fair, and poor to predict locations for future surveys within the *BSA* and range of the species that potentially support BNLL occurrences. Figures 6A-6J show the BNLL observations and the habitat suitability ranking locations along the *BSA* in the Cuyama Valley, Temblor Range, and San Joaquin Valley ecoregions that are defined as follows:

- **Excellent –** Habitat is considered excellent for potential BNLL presence if it contains all of the known preferred habitat characteristics including high density of small mammal burrows for escape, large shrubs with dense canopy, open bare ground between shrubs (generally lacking dense annual grass cover), and high densities of the key prey item side-blotched lizard. **NOTE: No areas were designated as "excellent" but this represents the idealized habitat for comparison to the other ranking criteria**
- **Good –** Habitat is considered good if missing any one of the characteristics listed above, or additional unfavorable characteristics are present such as dense cover of annual grasses. BSA: 517.8 acres; TCC: 167.9 acres; PCC: 81.9 acres (subset of TCC).
- **Fair –** Habitat is considered fair if missing any two favorable habitat characteristic and annual grass density is high enough to influence detectability of BNLL. BSA: 325.4acres; TCC: 103.3 acres; PCC: 51.5 acres (subset of TCC).
- **Poor –** Habitat is considered poor if none of the preferred habitat characteristics are present. BSA: 846.5 acres; TCC: 267.7 acres; PCC: 136.3 acres (subset of TCC).
- **NOTE:** High density of annual grass cover observed during the survey may have been a result of the above average 2016-2017 rainfall year. Over time with less rainfall the annual grass cover may wane providing a temporal shift increasing the habitat suitability ranking at some locations.

The purpose of the BNLL habitat assessment surveys was to attempt detection of the species during the peak protocol survey season in areas of suitable habitat within the potential range of BNLL but lacking any previously recorded observations. The BNLL range used for the habitat assessment surveys is based on the WHR mapping and consultation with CDFW personnel who provided the westernmost extent of potential BNLL habitat in the southern limits of the CDFW Chimineas Ranch that is part of the Carrizo PPC Ecological Reserve. As noted above, negative findings from protocol surveys are only valid for one year and may need to be conducted as part of pre-construction surveys to determine actual agency accepted presence/absence findings during proposed Project construction. In that light, the habitat

assessment surveys did not result in any observations in the Cuyama Valley or Temblor Range ecoregions within the range of the BNLL. There were BNLL observations on two separate occasions in the San Joaquin Valley Ecoregion portion of the *BSA*. These sightings are consistent with the known range of the species since there were CNDDB recorded occurrences in contiguous habitat nearby.

The San Joaquin coachwhip *(Masticophis flagellum ruddocki)* is a CDFW species of special concern that prefers open, dry habitats with little or no tree cover. They require mammal burrows for refuge and egg laying sites. Often found in valley grassland and salt bush scrub the San Joaquin coachwhip was observed in the Cuyama Valley ecoregion with a range extending through the Temblor Range and San Joaquin Valley ecoregions.

The coast horned lizard *(Phrynosoma blainvillii)* is a BLM sensitive species and a CDFW species of special concern. Occurring in a wide variety of habitats they are most common in sandy soils, with abundant ant colonies, open areas for sunning, and bushes for cover. Feeding primarily on ants they use the loose soil for cover to bury themselves. The coast horned lizard was observed in the *BSA* in the Sierra Madre and Cuyama ecoregions with CNDDB occurrences in the Coastal Hills ecoregion as well.

The two striped garter snake *(Thamnophis hammondii)* is a BLM and USFW sensitive species and a CDFW species of special concern. They are a highly aquatic garter snake typically found in or near permanent fresh water along streams with rocky beds and riparian growth. Foraging in and below the water for larval and juvenile amphibians as well as fish and eggs. There is suitable habitat for the two-striped garter snake within the *BSA* with CNDDB and/or BISON known occurrences in the mountainous area of the Cuyama River downstream from the *BSA* and where there are suitable riparian and aquatic habitats in the Gaviota Coast, Coastal Hills, and Sierra Madre, and Cuyama Valley ecoregions

Birds

The Cooper' hawk (*Accipiter cooperii*) and sharp-shinned hawk *(A. striatus*) are on the CDFW watch list. They are wide ranging nesting and winter migrants and nomads in *BSA* associated with woodlands, scrublands and open country habitats. They nest in woodlands and scrub habitats foraging primarily on birds and small mammals. The Cooper's hawk has been observed during SII surveys and both species are expected to occur in the *BSA* in winter and nesting season where suitable habitats and prey are available.

The tricolored blackbird *(Agelaius tricolor)* is a BLM sensitive species, USFW bird of conservation concern, and CDFW candidate species for listing under CESA. As a CESA candidate species they are afforded protection and take authorization under the CESA regulations. The California Fish and Game Commission is still reviewing the listing decision with several candidate and listing decision extensions since January 2016. They are nomadic and highly colonial that typically nest in dense patches of tules and reeds in aquatic habitats, and a foraging in open lands and agricultural fields nearby. Tricolored blackbirds are opportunistic feeders foraging on insects, seeds and other invertebrates. No suitable nesting habitat was observed along the *BSA* alignment but the project is within the range of the species with CNDDB and BISON observations mostly in the Coastal Hills and Cuyama Valley ecoregions.

The Southern California rufous-crowned sparrow *(Aimophila ruficeps canescens)* is on the CDFW watch list and can be found in coastal sage scrub communities on relatively steep rocky hillsides. They forage primarily on seeds in the scrub under story and adjacent grasslands consuming more insects in the

summer months. The Southern California rufous-crowned sparrow was not observed in the *BSA* but have CNDDB recorded occurrences in the Gaviota Coast and Coastal Hills ecoregions.

The golden eagle (*Aquila chrysaetos*) is a BLM sensitive species, USFW bird of conservation concern, and a CDFW Fully Protected species. It is a wide-ranging nesting and wintering woodland and open country species that nests in large trees and cliffs and forages in the open country grasslands. There is potential in all ecoregions with suitable habitat element present but with low likelihood in areas of rugged heavily vegetated terrain.

The short-eared owl *(Asio flammeus)* is a CDFW species of special concern. It is a winter migrant of open country grasslands, agricultural fields and marshes.

The long-eared owl *(Asio otus)* is a CDFW species of special concern. They prefer riparian bottomlands with tall willows and cottonwoods and will utilize live oak woodlands. They require adjacent open lands with small rodents for foraging and will use old crow or hawk nests for breeding. The longed-eared owl was observed in the Coastal Hills ecoregion and may winter in the inland ecoregions.

The western burrowing owl *(Athene cunicularia)* is a BLM sensitive species, USFW bird of conservation concern, and a CDFW species of special concern. They use grasslands and areas with low or sparse vegetation for foraging and burrow sites typically associated with ground squirrel burrows. They forage on small mammals and invertebrates. Western burrowing owls were observed with in the Coastal Hills Ecoregion as a winter migrant, and breeding season observations in the Cuyama Valley and San Joaquin Valley ecoregions. BISON has records of this species in the Gaviota Coast and Coastal Hills ecoregions presumably as winter use along the coast.

The ferruginous hawk *(Buteo regalis*) is a bird of conservation concern with the USFW and on the CDFW watch list. They are wide ranging winter visitors in California associated with open grass lands, sagebrush flats, desert scrub, low foothills, and on the fringes of juniper and pinyon habitats. Foraging primarily on small mammals and snakes, they will also consume large insects and birds.

The Swainson's hawk *(Bueto swainsoni)* is a BLM sensitive species, USFW bird of concern, and listed as threatened with CDFW. They are a breeding season migrant nesting in large isolated trees but primarily associated with riparian corridors. They forage widely for small mammals in open fields and agricultural lands. There is suitable habitat within the *BSA* in the Cuyama Valley and San Joaquin Valley ecoregions. There is a CNDDB recorded nest site with observations in 2010 to 2013 in several trees (variable year to year) along Highway 166 west of Cuyama.

The white-tailed kite (*Elanus leucurus*) is a BLM sensitive and CDFW fully protected species. This is wide ranging winter and nesting species in the BSA using open country and oak savannah for foraging on small mammals and nesting in trees. There is potential in all ecoregions with suitable habitat elements present but with low likelihood in areas of rugged heavily vegetated terrain.

The California horned lark *(Eremophila alpestris actia)* is on the CDFW watch list. Requiring short grasses in prairie, mountain meadows and open coastal plains for nesting and foraging they have also been found in fallow agriculture fields and alkali flats. California horned larks were observed in the *BSA* in the Cuyama Valley Ecoregion and may be found in the coastal ecoregions as well.

The southwestern willow flycatcher *(Empidonax trailii extimus*) is listed as endangered with USFW and CDFW. They are a breeding migrant that prefers dese multi-layered riparian jungles along rivers and streams with perennial flows that produce abundant insect prey. Southwestern willow flycatcher are known to occur in the Santa Ynez River near the *BSA* alignment (CNDDB records) where there is also designated Critical Habitat (Figures 3.2 and 4.8).

The prairie falcon *(Falco mexicanus)* is a USFW bird of conservation concern and on the CDFW watch list. They inhabit dry open terrain nesting high above ground in cliffs, and prey on small mammals as they forage far afield. The prairie falcon was observed tending a nest to the north of the *BSA* in the Temblor Range Ecoregion and may occur in the Cuyama Valley and San Joaquin Valley ecoregions.

The California condor *(Gymnogyps californianus)* is listed as endangered by the USFWS and CDFW, and a CDFW Fully Protected species that is a wide ranging species requiring vast expanses of open areas for foraging, roosting and nesting in deep canyons containing clefts in rocky walls. They are known to forage as far away as 100 miles from nest sites and could occur flying over the *BSA*. Given the narrow project corridor and huge expanse of lands across the Cuyama Valley to the San Joaquin Valley, the likelihood of any encounters with the California condor in the *BSA* is very low and improbable.

The loggerhead shrike (*Lanius ludovicianus)* is a USFWS species of concern and a CDFW species of special concern. It is a wide-ranging resident species of open woodlands and scrublands foraging in adjacent open country grassland habitats. The loggerhead shrike was observed during SII field surveys and could be present throughout the BSA as nesting, wintering, or localized migrant.

The yellow warbler *(Setophaga petechia)* is a USFW bird of conservation and CDFW species of special concern. Yellow warblers are breeding season migrants associated with riparian plant communities in close proximity to water. They nest and forage in riparian thickets with other riparian plants including cottonwoods, sycamores and ash. Their range suggests they could occur in suitable riparian habitats in all the *BSA* ecoregions. See Figure 3.2 for CNDDB occurrence downstream in the Sisquoc River.

The Le Conte's thrasher *(Toxostoma lecontei)* is a USFW bird of conservation and a CDFW species of special concern. Commonly nesting in dense spiny shrubs they can be found in open desert washes, desert scrub, alkali desert scrub and desert succulent scrub habitats. Their range suggests they may be found in the San Joaquin Valley Ecoregion.

The least Bell's vireo *(Vireo bellii pusillus)* is listed as endangered with USFW and CDFW. They are a breeding season migrant of coastal southern California associated exclusively as a riparian woodland nesting obligate. Nest are placed along the margins of bushes and the channel. There are CNDDB occurrences in the Santa Ynez River and Sisquoc River with suitable habitat along the *BSA* where it crosses these two rivers.

Mammals

The Nelson's antelope squirrel *(Ammospermophilus nelsoni*) is on the BLM sensitive species list and listed as threatened by CDFW. They are found in grassland and scrubland communities Cuyama Valley, Temblor Range, and San Joaquin Valley ecoregions. The Nelson's antelope squirrel uses burrows for denning and cover and forages on seeds. The Nelson's antelope squirrel was observed abundantly during the SII 2017 field surveys along the Cuyama Valley Ecoregion *BSA* alignment and in several locations of the San Joaquin Valley Ecoregion along with CNDDB/BISON occurrences (Figures 3.3-3.6).

The Townsend's big eared bat *(Corynorhinus townsendii)* is on the BLM and USFW sensitive list and is a CDFW species of special concern. They are known to forage along the edge and within the oak

woodlands along streams and roost in colonies or individually in caves, mines, large old trees, and large undisturbed spaces in buildings and other structures. With the exception of the oak woodlands that are not typically used for colonial roost sites, there is very little "structure" habitat to support the Townsend's big eared bat roosts within the *BSA*.

Giant kangaroo rat *(Dipodomys ingens)* is listed as endangered by the USFW and CDFW with CNDDB and BISON observations in the Cuyama Valley, with possible occurrence in the Temblor Range and San Joaquin Valley ecoregions. They are a scrubland and grassland species with distinctly large burrow openings compared to other kangaroo rats with overlapping range along with characteristic large hay stacks of plant material in established precincts. No distinct Giant kangaroo rat precincts were observed within the range of the species along the *BSA* alignment.

Tipton kangaroo rat *(Dipodomys nitroidies nitroidies)* is listed as endangered by the USFW and CDFW. They inhabit saltbush scrub and alkali sink scrub communities in the southern San Joaquin Valley. The preferred location for Tipton kangaroo rat burrows typically involves alluvial fans and flood plains and includes fine, highly alkaline sands and alkaline sandy loams. This species range is east of the California Aqueduct and not within the *BSA*.

The short-nosed kangaroo rat *(Dipodomys nitroidies brevinasus)* is a BLM sensitive species and a species of special concern with CDFW. They occur on the western side of the San Joaquin Valley in grassland and desert scrub. They require friable soils and favor flat to gently sloping terrain.

The Bryant's San Diego woodrat *(Neotoma bryanti intermedia)* is a CDFW species of special concern. They prefer moderate to dense shrub canopies and are particular to rock outcrops on cliffs and steep slopes. They forage mainly on fruits, leaves, seeds, and shoots. Bryant's San Diego woodrat middens were not observed within the *BSA* alignment that does not support the rock outcrop microhabitat. The four occurrences in the CNDDB are outside of the *BSA* in Molino, Guillermo, Hondo and Quemado canyons along the coast line.

The Tulare grasshopper mouse *(Onchomys torridus tularensis)* is a BLM sensitive species and a CDFW species of special concern. They occupy hot, arid valleys and desert scrub in the southern San Joaquin Valley. Their diet consists almost exclusively of arthropods and therefore need an abundant supply of insects. There is suitable habitat for the Tulare grasshopper mouse in the Cuyama Valley, Temblor, and San Joaquin Valley ecoregions *BSA*.

T**he San Joaquin pocket mouse (*Perognathus inornatus*)** is a BLM sensitive species and CDFW species of special concern. It inhabits dry open grasslands or scrub areas of San Joaquin Valley with fine textured soils with grasses and forbs. There is potential for occurrence in eastern Cuyama Valley and San Joaquin Valley ecoregions.

The American badger *(Taxidea taxus)* is a CDFW species of special concern. They are a grassland species that can be easily detected by their distinctive half-moon shaped burrows. They prefer to forage on small burrowing mammals like the California ground squirrel and other rodents but have been known to eat birds and other prey of opportunity. There are multiple badger den observations along the study during the SII 2017 surveys along with CNDDB and BISON recorded occurrences. There is suitable habitat throughout all ecoregions for badger to occur.

The San Joaquin kit fox *(Vulpes macrotis mutica)* is a listed as endangered by the USFW and threatened by CDFW. They are a somewhat wide-ranging species found in scrublands and grasslands with abundant prey such as kangaroo rats, other small mammals, and insects. They need loose soils for burrowing and denning and often share burrow complexes with other denning. Tracks, scat, and potential dens were observed during SII 2017 surveys in the Cuyama Valley Ecoregion, with numerous CNDDB and BISON observations in the Cuyama Valley, Temblor Range and San Joaquin Valley ecoregions.

6.0 IMPACT ANALYSIS

This section discusses potential impacts on biological resources that would result from implementation of the Proposed project as described in Section 3.0 above. In summary, impacts on approximately 1,492.22 acres of the varied habitat types that comprise a subset of the total 4,588.98 -acre habitat mosaic within the *BSA* would result from disturbance of the *Temporary Construction Corridor* for the Proposed project. With the exception of oak tree and other woody vegetation removal, this is considered primarily a temporary impact as vegetation and land contours will be restored following the 12- to 18-month construction period. This total *Temporary Construction Corridor* impact accounts for impacts avoided by the trenchless crossing approach to creek crossings and other sensitive resource surface impact avoidance areas. The *Permanent Maintenance Corridor* is an approximate 717.92-acre subset of the *Temporary Construction Corridor* that follows a 50-foot width over the replacement pipeline and would be restored and/or maintained with only native or naturalized herbaceous vegetation (unless otherwise occupied by cultivated agriculture or other manmade development) to allow for future access, maintenance, and inspection of the pipeline. No woody vegetation (trees or shrubs) would be planted and over time natural recruitment may be removed as part of the ongoing operation and maintenance of the pipeline. The *Permanent Maintenance Corridor* would not have an established permanent road and will mostly follow and reflect existing conditions of an open grassland habitat corridor through the surrounding woodland and shrubland habitats. The *Permanent Maintenance Corridor* would be used to access the pipeline with vehicles and ATVs as is practiced under current operation and maintenance procedures.

For the purpose of this analysis, the *Permanent Maintenance Corridor* is considered a “permanent” impact, but this analysis also takes into account the limited overall impact on wildlife habitat and movement along the pipeline corridor. The *Permanent Maintenance Corridor* would consist of mostly vegetated open grassland habitats as is already predominantly the case under existing baseline conditions. As established in the existing conditions, approximately 58 percent of the *Permanent Maintenance Corridor* is already in grassland habitat. When this existing grassland habitat is combined with agriculture and developed areas (mostly ranch roads and rural ranch compounds) they total approximately 65 percent of the *Permanent Maintenance Corridor* as existing conditions which would remain unchanged upon completion of project construction. The remaining 35 percent of woodland and shrubland habitat impacts that would remain as an herbaceous plant community following construction are predominantly small patches of impacts scattered over the project alignment as described further below. Further, the overall context of the project impact analysis takes into account the alignment runs through vast expanses of all habitat types as it traverses the 123 miles through six ecoregions.

Permanent Facility Disturbance impacts of 13.17 acres of varied habitat types (not developed) within the *Temporary and Permanent Construction Corridors* would result from the construction of new pump stations at West Cuyama and Russell Ranch, the expansion of the existing Sisquoc Pump Station, and

grading at 37 new independent valve stations. Direct access to portions of the proposed pipeline will be achieved by the use of existing private, ranch/agricultural, and/or forest roads whenever feasible. Although PPC reserves the right to utilize additional existing access roads where appropriate, the current construction design will primarily rely upon the use of 88 existing access roads totaling approximately 91 miles throughout the Project region. No new access roads will be developed as a component of the temporary construction activities. Long-term access to the newly proposed 37 valve stations will require the development of approximately 2.08 miles of new partially improved (gravel, decomposed granite, etc.) roads.

TABLE 7
BIOLOGICAL STUDY AREA PLANT COMMUNITY ALLIANCE TEMPORARY AND PERMANENT CONSTRUCTION CORRIDOR IMPACTS
(* = CDFW SENSITIVE NATURAL COMMUNITY ALLIANCE)

Gaviota Coast Ecoregion	**Total Acres in BSA (300' width)**	**Total *Temporary Construction Corridor* Impact Acres (total 100' width)**	**Net *Temporary Construction Corridor* Impact Acres (area outside *Permanent Maintenance Corridor*))**	***Permanent Maintenance Corridor* Impact Acres (50' width excludes facility impacts)**	***Permanent Facility Disturbance* (Valves, Access Roads & Pump Stations)**
Agriculture	2.03	0.01	0.01	0.00	0.00
Arroyo Willow Thickets*	4.6	0.75	0.39	0.36	0.00
California Sycamore Woodlands*	4.98	0.81	0.39	0.42	0.00
Coast Live Oak Woodland	17.91	2.04	1.11	0.93	0.1
Coastal Sage Scrub	153.52	34.34	18.77	15.57	0.9
Coyote Brush Scrub	19.45	3.22	2.4	0.82	0.08
Developed	55.87	19.12	13.53	5.59	0.02
Disturbed Annual Grassland	373.13	125.55	67.96	57.59	1.86
Purple Sage Scrub	1.12	0.65	0.37	0.28	0.00
Red Willow Thickets*	1.36	0.07	0	0.07	0.00
Wedge Leaf Ceanothus Chaparral	22.45	5.72	3.45	2.27	0.00
Gaviota Coast Ecoregion Subtotal	**656.42**	**192.28**	**108.38**	**83.9**	**2.96**
Coast Hills Ecoregion	**Total Acres in BSA (300' width)**	***Temporary Construction Corridor* Impact Acres (100' width)**	**Net *Temporary Construction Corridor* Impact Acres (area outside *Permanent Maintenance Corridor)***	***Permanent Maintenance Corridor* Long-Term O&M Impact Acres (50' width)**	***Permanent Facility Disturbance* (Valves & Pump Stations)**
Agriculture	162.87	59.46	30.08	29.38	0.24

Arroyo Willow Thickets*	16.02	1.23	0.37	0.86	0
California Sycamore Woodlands*	2.03	0.31	0.15	0.16	0
Coast Live Oak Woodland	61.92	6.50	4.28	2.22	0
Coastal Sage Scrub	116.95	24.62	14.13	10.49	0.01
Coyote Brush Scrub	1.53	0.77	0.4	0.37	0.00
Developed	40.43	11.07	4.62	6.45	0.09
Disturbed Annual Grassland	775.25	290.21	146.32	143.89	1.01
Mixed Oak Forest	20.03	3.13	2.16	0.97	0
Mulefat Thickets	2.01	0.34	0.13	0.21	0
Red Willow Thickets*	1.44	0.32	0.16	0.16	0
Riverwash	4.33	0.21	0	0.21	0
Stock Pond	1.00	0.17	0.05	0.12	0
Wedge Leaf Ceanothus Chaparral	4.70	0.71	0.62	0.09	0
Coast Hills Ecoregion Subtotal	**1,210.51**	**399.05**	**203.47**	**195.58**	**1.35**
Sierra Madre Ecoregion	**Total Acres in BSA (300' width)**	***Temporary Construction Corridor* Impact Acres (100' width)**	**Net *Temporary Construction Corridor* Impact Acres (area outside *Permanent Maintenance Corridor*))**	***Permanent Maintenance Corridor* Long-Term O&M Impact Acres (50' width)**	***Permanent Facility Disturbance* (Valves & Pump Stations)[1]**
Arroyo Willow Thicket*	0.56	0.32	0.32	0	0
Blue Oak Woodland	80.14	9.85	6.24	3.61	0
Chamise / Redshank Chaparral	160.75	37.24	22.54	14.7	0.02
Coast Live Oak Woodland	77.37	12.06	5.57	6.49	0
Coastal Sage Scrub	104.49	37.10	19.06	18.04	0.05
Developed	8.48	3.74	1.63	2.11	0.08
Disturbed Annual Grassland	267.48	146.48	69.9	76.58	0.39
Mixed Oak Forest	60.85	9.36	4.46	4.9	0.01
Mulefat Thickets	2.28	0.67	0.32	0.35	0
Purple Sage Scrub	51.29	14.87	8.4	6.47	0
Riverwash	0.17	0.05	0.02	0.03	0
Stock Pond	0.05	0	0	0	0
Wedge Leaf Ceanothus Chaparral	27.49	8.07	4.16	3.91	0.15
Sierra Madre Ecoregion Subtotal	**841.4**	**279.81**	**142.62**	**137.19**	**0.7**

Cuyama Valley Ecoregion	**Total Acres in BSA (300' width)**	***Temporary Construction Corridor* Impact Acres (100' width)**	**Net *Temporary Construction Corridor* Impact Acres (area outside *Permanent Maintenance Corridor*))**	***Permanent Maintenance Corridor* Long-Term O&M Impact Acres (50' width)**	***Permanent Facility Disturbance* (Valves & Pump Stations)**
Agriculture	337.02	126.98	59.16	67.82	0.33
Allscale Scrub	424.9	126.62	68.12	58.5	3.28
Arroyo Willow Thickets*	0.53	0.12	0.03	0.09	0.00
Blue Oak Woodland	9.87	2.08	1.27	0.81	0.14
Coastal Sage Scrub	18.76	4.56	2.8	1.76	0.04
Developed	17.85	5.64	3.49	2.15	0.07
Disturbed Annual Grassland	562.6	208.52	105.76	102.76	3.86
Mulefat Thickets	1.18	0.16	0	0.16	0.00
Purple Sage Scrub	2.73	0.73	0.55	0.18	0.00
Riverwash	7.10	1.72	0.87	0.85	0.00
Cuyama Valley Ecoregion Subtotal	**1,382.54**	**477.13**	**242.05**	**235.08**	**7.72**
Temblor Range Ecoregion	**Total Acres in BSA (300' width)**	***Temporary Construction Corridor* Impact Acres (100' width)**	**Net *Temporary Construction Corridor* Impact Acres (area outside *Permanent Maintenance Corridor*))**	***Permanent Maintenance Corridor* Long-Term O&M Impact Acres (50' width)**	***Permanent Facility Disturbance* (Valves & Pump Stations)**
Allscale Scrub	123.42	39.63	20.71	18.92	0.3
Developed	9.38	2.8	1.53	1.27	0.00
Disturbed Annual Grassland	141.49	44.67	22.85	21.82	0.00
Riverwash	0.12	0.03	0.01	0.02	0.00
Temblor Range Ecoregion Subtotal	**274.41**	**87.13**	**45.1**	**42.03**	**0.3**
San Joaquin Valley Ecoregion	**Total Acres in BSA (300' width)**	***Temporary Construction Corridor* Impact Acres (100' width)**	**Net *Temporary Construction Corridor* Impact Acres (area outside *Permanent Maintenance Corridor*))**	***Permanent Maintenance Corridor* Long-Term O&M Impact Acres (50' width)**	***Permanent Facility Disturbance* (Valves & Pump Stations)**
Agriculture	22.96	2.18	1.63	0.55	0.00
Allscale Scrub	31.08	10.00	4.59	5.41	0.00
Developed	76.89	12.98	9.43	3.55	0.00

Disturbed Annual Grassland	92.77	31.66	17.03	14.63	0.14
San Joaquin Valley Ecoregion Subtotal	**223.70**	**56.82**	**32.68**	**24.14**	**0.14**
TOTAL ALL ECOREGIONS	**4,588.98**	**1,492.22**	**774.30**	**717.92**	**13.17**

6.1 THRESHOLDS OF SIGNIFICANCE

Santa Barbara County has an adopted Environmental Thresholds and Guidelines Manual that provides the direction on determining thresholds for significant impacts and those that are considered less than significant impacts. San Luis Obispo County and Kern County lacking promulgated thresholds of significance rely on the CEQA Appendix G Checklist for initial evaluation of significant and less than significant impacts, with staff review and approving bodies providing for the final significance interpretation. As part of the project alignment occurs in San Luis Obispo and Kern counties, these CEQA findings and mitigation measures are used as guidance for the analysis of impacts and development of feasible mitigation measures for the Proposed project.

According to the Santa Barbara County Environmental Thresholds and Guidelines Manual, Biological Resources Section (6.)(C.)(3.)(a.), significant impacts on biological resources are considered in the following circumstances:

(1) Substantially reduce or eliminate species diversity or abundance.
(2) Substantially reduce or eliminate quantity or quality of nesting areas.
(3) Substantially limit reproductive capacity through losses of individuals or habitat.
(4) Substantially fragment, eliminate, or otherwise disrupt foraging areas and/or access to food sources.
(5) Substantially limit or fragment range and movement (geographic distribution or animals and/or seed dispersal routes).
(6) Substantially interfere with natural processes, such as fire or flooding, upon which the habitat depends.

According to the Santa Barbara County Environmental Thresholds and Guidelines Manual, Biological Resources Section (6.)(C.)(3.) (b.), less than significant impacts are considered in the following circumstances:

> *There are many areas in the County where there is little or no importance to a given habitat and it is presumed that disruption would not create a significant impact. Examples of areas where impacts to habitat are presumed to be insignificant include:*
>
> *(1) Small acreages of non-native grassland if wildlife values are low.*
> *(2) Individuals or stands of non-native trees if not used by important animal species such as raptors or monarch butterflies.*
> *(3) Areas of historical disturbance such as intensive agriculture.*
> *(4) Small pockets of habitats already significantly fragmented or isolated, and degraded or disturbed.*
> *(5) Areas of primarily ruderal species resulting from pre-existing man-made disturbance.*

According to the Santa Barbara County Environmental Thresholds and Guidelines Manual, Biological Resources Section (6.)(C.)(3.)(c.), Impact Assessment Factors, the following questions and factors are used in assessing the significance of Project impacts on biological resources.

(1) ***Size.*** *How much of the resource in question both on and off the Project site would be impacted?* (*Percentage of the whole area and square footage and/or acreage are both useful to know*) *How does the area or species that would be impacted relate to the remaining populations off the Project site?* (*Percentage of total area or species population, either quantitatively or qualitatively.*)

(2) ***Type of Impact.*** *Would it adversely indirectly affect wildlife* (*light, noise, barriers to movement, etc.*)*? Would it remove the resource or cause an animal to abandon the area or a critical activity* (*e.g., nesting*) *in that area? Would it fragment the area's resource?*

(3) ***Timing.*** *Would the impact occur at a critical time in the life cycle of an important plant or animal* (*e.g., breeding, nesting, or flowering periods*)*? Is the impact temporary or permanent? If it is temporary, how long would the resource take to recover? Would the impact be periodic, of short duration, but recur again and again?*

Additionally, Santa Barbara County Environmental Thresholds and Guidelines Manual, Biological Resources Section (6.)(D.) provides the following habitat-specific impact assessment guidelines pertinent to this proposed Project analysis.

Section (6)(D.)(3.)(b.) Native Grassland Habitat Impact Assessment Guidelines:

(1) *For purposes of resource evaluation in Santa Barbara County, a native grassland is defined as an area where native grassland species comprise 10 percent or more of the total relative cover.*

(2) *Removal or severe disturbance to a patch or patches of native grasses less than one-quarter acre, which is clearly isolated and is not a part of a significant native grassland or an integral component of a larger ecosystem, is usually considered insignificant.*

Section (6)(D.)(4.)(b.) Oak Woodlands and Forests Habitat Impact Assessment Guidelines:

a. ***Description.*** *There are three primary types of oak woodlands in Santa Barbara County: Valley Oak, Coast Live Oak, and Blue Oak woodlands. The number, type, and density of oak trees, and the relationship between trees and understory are principal characteristics which define the various types of woodlands. Oak habitats support a diverse wildlife population, and offer abundant resources to wildlife including food sources, shade in summer, shelter in winter, perching, roosting, nesting, and food storage sites.*

b. ***Impact Assessment Guidelines for Woodlands and Forest Habitat Areas.*** *Project-created impacts may be considered significant due to changes in habitat value and species composition such as the following:*

(1) Habitat fragmentation.
(2) Removal of understory.
(3) Alteration to drainage patterns.
(4) Disruption of the canopy.
(5) Removal of a significant number of trees that would cause a break in the canopy or disruption in animal movement in and through the woodland.

6.2 BOTANICAL RESOURCES IMPACTS

General Vegetation/Habitat Impacts – The proposed Project would result in 770.06 acres of temporary impacts across the portion of the *Temporary Construction Corridor* which is located outside of the boundaries of the *Permanent Maintenance Corridor*. This temporary impact area occurs across varied native plant communities along the 123-mile alignment across the six ecoregions as shown above in Table 7. In general, the habitat impacts within this area are essentially short term and temporary as the narrow project would be impacted and restored in a linear sequenced fashion over a 12 to 18-month construction window. Vegetation and habitat communities would be restored across the *Temporary Construction Corridor* as part of the project approach to salvage and respread topsoil from excavations, application of a restoration native seed mix to disturbed areas where natural topsoil recovery is not sufficient, and long term recruitment as adjacent habitat expands back into the corridor on its own. The exception to the temporary nature of this impact would be the potential removal or damage to approximately 1,902 mature oak trees (see Table 9 below). The project does not propose to proactively replant or reseed the *Temporary Construction Corridor* with new oaks, but gradual regrowth of oaks through natural recruitment would be allowed outside of the *Permanent Maintenance Corridor*. Due to the relatively slow nature in which individual oaks or oak woodland regrows, the project proposes to mitigate the loss of oaks through an offsite planting or oak woodland conservation effort.

An approximately 717.92 acre (typically 50-foot wide) *Permanent Maintenance Corridor* subset of the *Temporary Construction Corridor* would be maintained for operation and maintenance access to the pipeline. This area would be restored to open native or naturalized grassland or, in the drier Cuyama Valley to San Joaquin Valley ecoregions, sparse herbaceous habitat consistent with approximately 49 percent of grassland habitat comprising the existing *BSA* field conditions already recognized as the environmental baseline (as shown in Tables 4 and 6). Approximately 17 percent of the *Permanent Maintenance Corridor* would be returned to agricultural cultivation, and 3 percent would remain developed with the various other manmade uses (roads, driveways, corrals, etc.) Approximately 20 percent of the *Permanent Maintenance Corridor* would be converted from predominantly woodland shrub/scrub habitat types (such as coastal scrub, chaparral, allscale scrub) to native or naturalize grassland as a result of ongoing woody vegetation clearance needed to ensure pipeline integrity and ready access to the pipeline for future repairs, maintenance, and inspection.

As these data indicate, the existing environmental condition of the pipeline corridor consists of a predominantly *Annual Grassland* ecotone throughout the region's wider array of oak woodland, chaparral, and coastal scrub habitats. The temporary and permanent impacts are mostly small habitat patches scattered along the fringe of the existing pipeline alignment and are not aggregated into one large habitat patch removal, but will contribute to the varied habitat structure in the greater expanse of habitats in the region of the alignment. After project initiated and natural restoration has been completed after project construction, long-term continuance of the large-woody vegetation removal from the *Permanent Maintenance Corridor* would only result in sporadic elimination of small patches of various habitat types along the fringes of the corridor as illustrated below in Figure 6-1 and 6-2.

The conversion of this shrub/scrub or woodland habitats to habitat dominated by grassland is considered an incremental addition to the open grassland habitat ecotone that already exists along the majority of the pipeline corridor. This grassland still contributes to the biological value of the habitat mosaic expanse as it will still be readily available for native grassland growth, avian foraging, large mammal movement corridors, and small mammal and reptile use. Habitat fragmentation, type conversion, and barriers to wildlife use and movement are typically associated with urban edges and

roadway corridors lacking habitat. The project alignment runs through expansive habitats in the region and is not subject to ongoing travel and use. As such, the project would not result in creation of fragmented habitats or barriers to wildlife use and movement. The incremental loss of scrub or woodland would not be significant given: 1) it is spread across miles of varying habitat types and regions none of which would fall below a critical mass of remaining habitat, 2) potential long-term loss of individual oaks would be mitigated, 3) the offsite oaks would likely result in an ancillary protection or propagation of scrub land and/or oak woodland understory (i.e. oak tree mitigation properties do not solely include oak trees or woodland habitat). As such, based on the existing conditions established in this Biological Assessment, the *Temporary Construction Corridor* and *Permanent Maintenance Corridor* impacts are not viewed as habitat fragmentation or a habitat type conversion. Therefore, temporary and permanent impacts along the fringe of *Temporary Construction Corridor* through varied plant communities that would be restored to some extent as part of the project could be considered a less than significant impact.

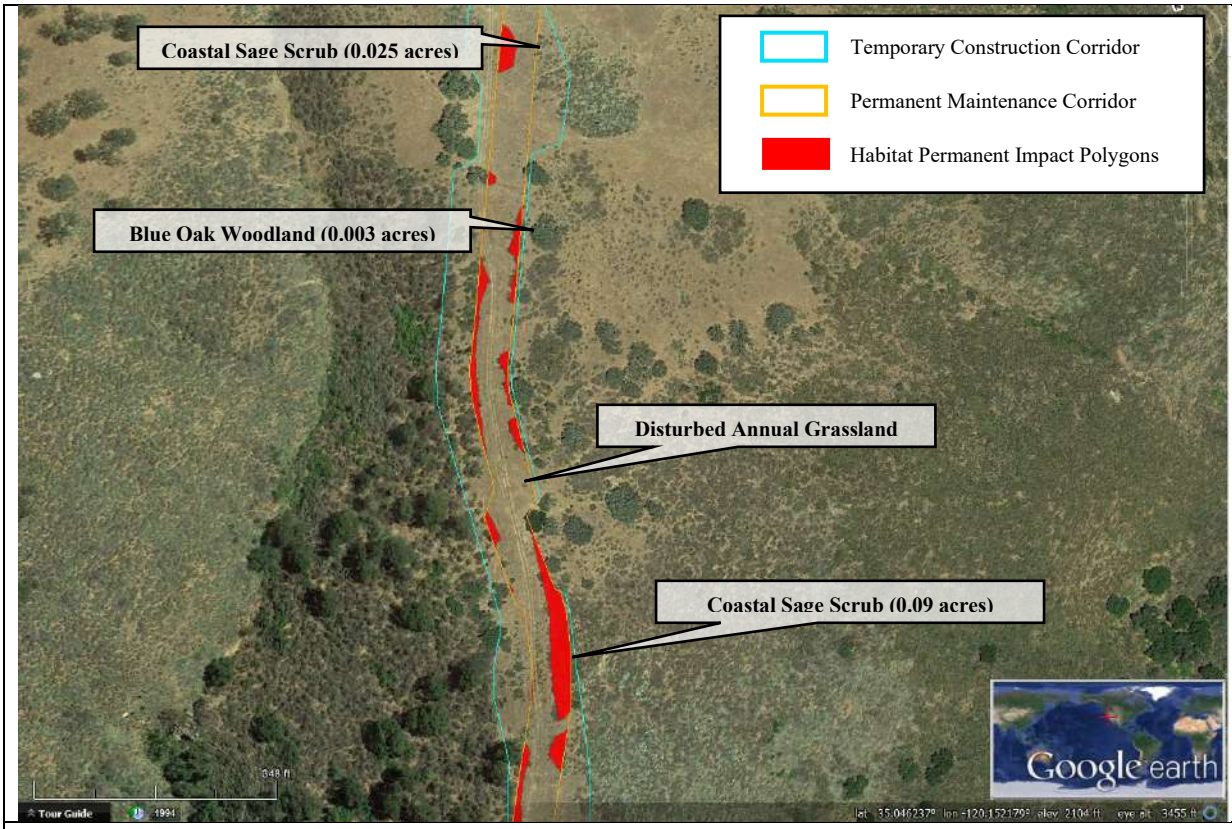

Figure 6-1 – Sierra Madre ecoregion examples along 50-foot *Permanent Maintenance Corridor* polygon distribution along project alignment showing patchy coastal scrub impacts at the fringe of greater expanses of habitats.

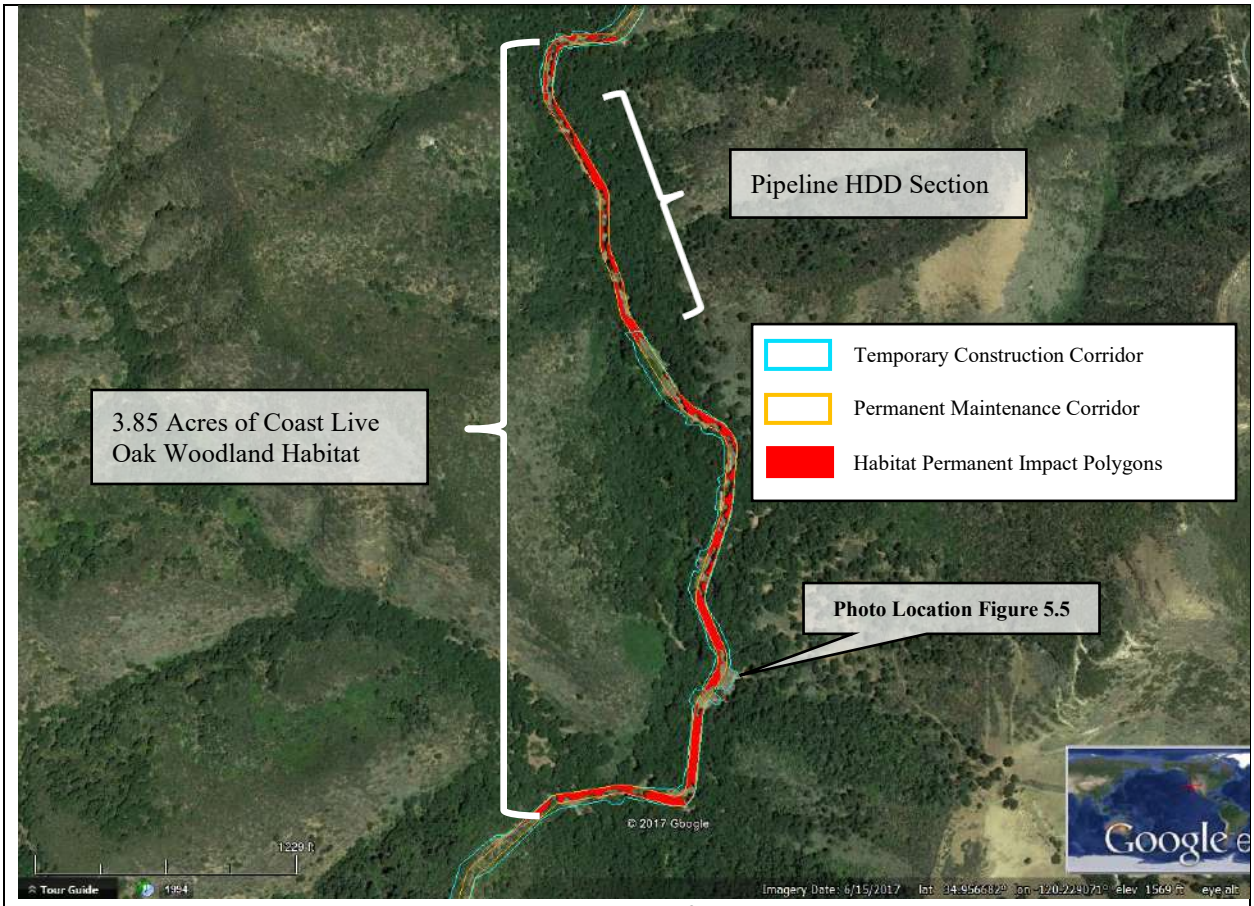

Figure 6-2 – Sierra Madre ecoregion examples along 50-foot *Permanent Maintenance Corridor* polygon distribution along project alignment showing oak woodland canopy impacts at location shown in Figure 5-5 above in the context of the greater expanse of the habitat mosaic in the region.

TABLE 8
REPRESENTATIVE PERMANENT MAINTENANCE CORRIDOR WOODY AND ALL HABITATS IMPACT SUMMARY
(* = CDFW SENSITIVE NATURAL COMMUNITY ALLIANCE)

WOODY HABITAT TYPES	# POLYGONS IN CORRIDOR	MINIMUM SIZE (ACRES)	MAXIMUM SIZE (ACRES)	AVERAGE SIZE (ACRES)	COMMENTS
Gaviota Coast					
Arroyo Willow Thickets*	5	0.02	0.15	0.07	
California Sycamore Woodlands*	8	0.01	0.14	0.05	
Coastal Sage Scrub	113	<0.01	1.9	.14	1 polygon at maximum size most others under 0.10 acre
Coyote Brush Scrub	5	0.02	0.44	0.16	
Coast Live Oak Woodland	35	<0.01	0.12	0.03	Small widely scattered impacts
Purple Sage Scrub	1	0.28	0.28	0.28	

Red Willow Thickets*	2	0.03	0.04	0.04	
Wedge Leaf Ceanothus Chaparral	16	<0.01	1.16	0.14	
Coast Hills					
Arroyo Willow Thickets*	7	0.01	0.35	.012	
California Sycamore Woodlands*	3	<0.01	0.12	0.05	
Coast Live Oak Woodland	145	<0.01	0.20	0.02	
Coastal Sage Scrub	119	<0.01	1.04	0.09	
Coyote Brush Scrub	1	0.37	0.37	0.37	
Mixed Oak Forest	59	<0.01	0.08	0.02	
Mulefat Thickets	6	0.02	0.08	0.04	
Red Willow Thickets*	2	0.02	0.14	0.08	
Wedge Leaf Ceanothus Chaparral	7	<0.01	0.02	0.01	
Sierra Madre Mountains					
Blue Oak Woodland	168	<0.01	0.26	0.02	
Chamise / Redshank Chaparral	148	<0.01	1.4	0.1	
Coast Live Oak Woodland	104	<0.01	1.54	0.06	
Coastal Sage Scrub	119	<0.01	2.32	0.15	
Mixed Oak Forest	117	<0.01	0.57	0.04	1 polygon at maximum size most others under 0.10 acre
Mulefat Thickets	6	<0.01	0.23	0.06	
Purple Sage Scrub	40	<0.01	1.3	0.16	
Wedge Leaf Ceanothus Chaparral	17	0.01	1.01	0.23	

IMPACTED POLYGON SIZE RANGES ACROSS ALL HABITAT TYPES
(1,882 TOTAL POLYGONS IN TEMPORARY / PERMANENT CORRIDOR)

Number of Polygons	Size Range
19	2.0 to 5.81 acres
22	1.0 to 2.0 acres
171	0.2 to 1.0 acres
170	0.2 to 0.1 acre
1,500	Less than 0.1 acre

Lastly, *permanent facility disturbance* impacts of 13.17 acres of varied habitat types (not developed areas) would result from the construction of new pump stations at West Cuyama and Russell Ranch, the expansion of the existing Sisquoc Pump Station, and grading at 37 new independent valve stations. These are small impact areas widely separated along the 123-mile project alignment. The loss of 3.28 acres of allscale scrub permanently impacted by the permanent facilities including the West Cuyama and Russell Ranch Pump Stations would be consider less than significant given the context amongst the vast expanse of allscale scrub habitat in the region along the alignment.

Valley Needlegrass Grassland Impacts – Valley needlegrass grassland is widely scattered across the *BSA* alignment within the Gaviota Coast, Coastal Hills, Sierra Madre, and western Cuyama Valley ecoregions with impacts of less than 10 acres of temporary impacts expected. As the total estimated project impacts on valley needlegrass grassland habitat is greater than one-quarter of an acre total, it would be considered a significant impact under Santa Barbara County significance thresholds and guidelines for native grassland impacts. However, the project includes the restoration of both the *Temporary Construction Corridor* and *Permanent Maintenance Corridor* with native or naturalized grassland. Along with using purple needle grass in the restoration seed mix, all such impacts can be mitigated to a less than significant level with the implementation of the mitigation measures provided in Section 7.0 below.

Rare, Threatened & Endangered Plant Species Impacts – The 2017 and 2019 field surveys identified the occurrence of six annual rare plant species across the 123-mile *BSA* alignment. In the Gaviota Coast Ecoregion, the Gaviota tarplant was identified in the *BSA* and is expected to occur in variable annual expressions within the mapped designated Critical Habitat dependent on rainfall and competition with non-native annual grasses. There are sixteen occurrences of Gaviota tarplant observed in the BSA during the SII 2019 and 2020 SII field surveys. Ten of these occurrences are within the 100-foot *Temporary Construction Corridor* for a total extent of 0.28 acre and estimated 705 individuals observed. Sixteen additional observations were recorded during the 2020 surveys outside of the *Temporary Construction Corridor* with landowner access with a total extent of approximately 0.49 acre with 979 estimated individuals observed. Table B-4 in Appendix B provides a detailed list of SII 2019 and 2020 survey results, and the BISON and CNDDB occurrence records. The "Observation ID" in Table B-4 can be correlated to the Gaviota tarplant observations mapped on Figures 7.1 through 7.9 in Appendix A.

In the Cuyama Valley Ecoregion, the California jewelflower, Lemmon's jewelflower, Kern mallow, and San Joaquin woolythreads were identified in the *BSA*. No perennial special-status plants were observed during the 2017 surveys. As such, impacts on special-status annual plant species would be considered potentially significant. Impacts would be minimized from some form of restoration across the *Temporary Construction Corridor* that would take place as part of the project approach, along with the salvage and respreading of topsoil from excavations containing the rare plant seed bank, and application of a restoration native seed mix to disturbed areas. Implementing the project before germination or after seed set to the extent feasible in areas of rare plants would further minimize impacts to the extent feasible. Given the 12 to 18-month project construction schedule, only one growing season would be disrupted further supporting the temporary and short-term nature of impacts on rare plants. Further, surface disturbance and removal of annual grasses from project implementation may encourage a robust annual rare plant expression for several years from the reduction in competition from the non-native annual grasses. As such, temporary and permanent impacts on special-status plant species could be considered a less than significant impact after implementation of mitigation measures.

Oak Woodland/Oak Tree Impacts – Field surveys conducted during 2017 mapped specific locations, species, and diameter at breast height (dbh) within the 300-foot wide *BSA* (or as reduced by inaccessibility) of approximately 11,813 data points representing a total of approximately 11,894 coast live oak, interior live oak, valley oak, and blue oak trees mostly in the Gaviota Coast, Coastal Hills, and Sierra Madre Mountains ecoregions. The limits of the construction corridor were specifically modified to avoid oak tree impacts when feasible. With the incorporation of this protective design element, analysis of *Temporary Construction Corridor* footprint with the oak tree mapping indicates that 1,902 oak trees could be removed or impacted by project implementation as shown in Table 9 below. In accordance with Santa Barbara County Development Standards for oak tree protection, this includes the a 298 valley

oak trees with canopy within 6 feet of the *Temporary Construction Corridor* with trunks outside the corridor could be impacted by project construction. The estimated total of 1,902 oak trees impacted is considered a fairly conservative (high) estimate generated by two dimensional mapping where the oak tree canopy within the *Temporary Construction Corridor* was considered as a potential removal. In the field, oaks which occur on slopes above and below the preferred construction zone are unlikely to be impacted, and large oaks remaining from the first pipeline construction can likely be avoided as they were before with minor field adjustments of the pipeline location. Therefore, the removal or impacts of up to 1,902 oaks would be considered a reasonable worst-case scenario, with actual construction impacts expected to be less than this estimate.

As described in Section 5.1 and illustrated in Figures 5-1 through 5-7, the existing pipeline maintenance corridor is clearly established throughout nearly the entire alignment with linear open areas through oak woodlands, coastal scrub, and chaparral habitats. The existing pipeline corridor is used for maintenance and inspection access and does not have a formal constructed road, which will be the same practice following the pipeline replacement project. The linear open habitat zone supports herbaceous grassland habitats as an ecotone along the oak woodlands and scrub habitat edges. Given the narrow corridor in relationship to the expanse of habitat mosaic throughout each ecoregion, the existing pipeline corridor adds to the structural complexity of the habitat matrix. Some resident and migratory species favor the edge areas to access variable food resources in the grassland, woodland, and shrubland interface. As such, the existing conditions and proposed Project conditions do not represent any type of habitat fragmentation as it rolls along the pipeline alignment especially in the woodland and scrub habitat areas. The alignment through grasslands readily intergrades with the surrounding grasslands. The linear and widely spread project impacts on oaks would not substantially change the habitat values and species composition or fragment oak woodland habitat in a manner that would disrupt wildlife behavior or movement. The narrow corridor of oak tree impacts along the existing open habitat zone would not substantially change the character of the expanses of oak woodland that extend well beyond the *BSA* and is not viewed as a habitat type conversion. The one large oak tree impact polygon is based on canopy viewed from above, however, this location is shown in the examples in Figures 5-5 and 6-2 above where the existing pipeline was installed in part under the existing oak canopy. See Appendix C Representative Photographs that further illustrate the existing conditions of the project alignment. As such, impacts on oak woodland habitat would be considered to be less than significant.

A rigorous oak tree planting program along the project alignment is not feasible given the need to maintain the *Permanent Maintenance Corridor* for ongoing inspection and maintenance free of woody vegetation, and the remote nature of most the project area making oak tree maintenance, irrigation and monitoring for success problematic. As such, this would be considered a significant impact requiring some form of offsite compensatory mitigation to reduce oak tree impacts to a less than significant level. See Appendix H.

TABLE 9 - OAK TREE IMPACTS				
Ecoregion	**Coast Live Oak Temp/Perm***	**Interior Live Oak Temp/Perm***	**Blue Oak Temp/Perm***	**Valley Oak Temp/Perm***
Gaviota Coast	88/76 (of 1,308 total)**	0	0	0
Coastal Hills	100/57 (of 2,365 total)	0	0	48/18removed 185 canopy impacts (of 360 total)
Sierra Madre Mountains	146/303 (of 2,528 total)	7/1 (of 125 total)	322/344 (of 4,820 total)	15/14 removed 113 canopy impacts (of 159 total)
Cuyama Valley	0	0	41/26 (of 357 total)	0
Temblor Range	0	0	0	0
San Joaquin Valley	0	0	0	0
Sub Totals	**334/436 (of 6,207 total)**	**7/1 (of 125 total)**	**363/370 (of 5,177 total)**	**63/32 298 canopy impacts (of 519 total)**
TOTAL PER SPECIES	**770**	**8**	**733**	**393**
TOTAL ALL OAK TREE IMPACTS 1,904				
*Temp = Oak Tree Impacts within Temporary Construction Corridor; Perm = Permanent Maintenance Corridor, and Permanent Facility Disturbance Areas; ** Total mapped within the BSA				

6.3 WILDLIFE RESOURCES IMPACTS

General Common Wildlife Species and Nesting Bird Impacts – The 123 mile long project traversing six ecoregions and a myriad of plant community alliances, along with the general remote and rural setting supports abundant habitat for a wide array of resident, nomadic, and migratory wildlife. Further, there is nesting habitat for resident and migratory bird throughout the *BSA*. Localized common species such as ground dwelling amphibians, reptiles and small mammals will likely be impacted during project construction. As noted above these are short term and temporary impacts given the existing conditions of a pipeline corridor, the linear nature of the project, restoration of contours and revegetation that will be part of the project, and the limited vegetation management activities within the *Permanent Maintenance Corridor*. Grassland vegetative cover and wildlife use is expected to readily return to the *Temporary Construction Corridor* within one growing season following construction. As such, short term and temporary impacts on common ground dwelling wildlife could be considered a less than significant impact.

Resident and migratory birds could be nesting anywhere along the *BSA* alignment from February through August. Birds and active nests are protected against take by Fish and Game Code of California Sections 3503 and 3503.5 (raptors specifically), and the Migratory Bird Treaty Act. Destruction of an active nest or activities that result in nest failure would be in violation of the above regulations and considered a significant impact. The nest avoidance mitigation measures would reduce this impact to a less than significant level.

Non-listed Special-Status Wildlife Species Impacts – Special-status wildlife species not afforded formal endangered species act protections observed during the 2017 surveys included the San Joaquin coachwhip, coast horned lizard, burrowing owl, and American badger. There is potential for many other

non-listed special-status wildlife species to occur within the *BSA* alignment that were not detected during the field surveys that are detailed in Table B-3 in Appendix B. These are mostly localized common ground dwelling amphibians, reptiles and small mammals that may be impacted during project construction. As noted above these are short term and temporary impacts given the linear nature of the project and restoration of contours and revegetation that will be part of the project. However, even these short term and temporary impacts on special-status ground dwelling wildlife could be considered a potentially significant impact. Measures to avoid and minimize impacts on special-status wildlife would reduce potentially significant impacts to a less than significant level.

Threatened & Endangered Wildlife Species Impacts – The 2017 field surveys and review of background information and the CNDDB/BISON identified listed plant and wildlife species occurrences within the project alignment, and areas that support suitable habitat for a number of formally listed threatened and endangered species. As such, project implementation could result in "take" of listed species protected under both FESA and CESA.

The observed and recorded occurrences of special-status species in the *BSA* coincide with the habitat recovery from the existing project implementation and with the existing maintenance corridor practices. In the Gaviota Coast ecoregion there are recorded occurrences in several of the coastal creeks for the tidewater goby, southern California steelhead, and California red-legged frog. These species may also occur in some of the other drainages with suitable habitat along the coast. The Coastal Hills ecoregion has recorded occurrences in the Santa Ynez River for the California red-legged frog (and elsewhere), steelhead, and southwestern willow flycatcher, along with designated Critical Habitat for these three species, and least Bell's vireo. The project alignment in the Coastal Hills ecoregion has potential upland habitat for the California tiger salamander. The Sisquoc River has arroyo toad recorded occurrences with the Cuyama River falling within the potential range of the species. Impacts from crossing the major creeks and riparian areas along the Gaviota Coast ecoregion, the Santa Ynez River, Sisquoc River, Cuyama River, and other large creeks will be implemented by boring under the creeks/rivers or use of the existing pipeline as casing that will mostly avoid impacts on species occurring in these areas. The risk of inadvertent returns (bore drilling muds under pressure in the bore operation surface through subsurface cracks) remains as a potential impact on aquatic species such as the tidewater goby, steelhead, and California red-legged frog. The most likely impacts to occur would be water quality impacts from the drilling muds in an active stream, and from equipment and personnel accessing the inadvertent returns area(s) to pump out the surfaced drilling muds, and localized impacts on aquatic habitat if it occurs in a wetted channel.

The Cuyama Valley, Temblor Range, and San Joaquin Valley ecoregions have recorded occurrences and potential habitat for the Kern primrose sphinx moth, blunt-nosed leopard lizard (observed 2017 in SJV), Nelson's antelope squirrel (observed in 2017), giant kangaroo rat, Tipton kangaroo rat, and San Joaquin kit fox (sign observed in 2017). The Kern primrose sphynx moth host plant Mojave sun cup was observed within the *BSA* that could support the species. As discussed above, 2017 field habitat assessment surveys did not produce any observations of the blunt-nosed leopard lizard in the Cuyama Valley or Temblor Range ecoregions, however, varied quality of suitable habitat was identified within the range of this species in the Cuyama Valley. There was abundant kangaroo rat occupation along the *BSA* alignment but none definitively representative of the giant or Tipton kangaroo rats. Given that proposed Project construction is several years away, occupation of the project alignment by these species is not improbable.

As noted above, the project would result in short term and temporary impacts given the linear nature of the project and restoration of contours and revegetation that will be part of the project. However, even these short term and temporary impacts on listed species habitat could be considered a potentially significant impact. Take of formally listed species requires incidental take permits/authorization from the USFWS and CDFW. Measures to avoid (required for the Fully Protected BNLL), minimize, and mitigate impacts on listed wildlife as required by the agency take permit process would reduce potentially significant impacts to a less than significant level.

6.4 JURISDICTIONAL WATERS OF THE U.S./STATE IMPACTS

Pipeline crossings of permanent, intermittent, and ephemeral creeks and drainages could impact waters of the U.S./State. Construction impacts across waters of the U.S. will be avoided and minimized by trenchless crossings at 18 of the 141 crossings with two creeks adjacent to the alignment avoided. The project proposes to bore underneath crossings mostly of the major rivers and creeks supporting listed and other special-status species that essentially avoids impacts on these species and jurisdictional waters. While the major habitat disturbance is avoided by trenchless crossings, access at least on foot is required to follow and locate the drill bit. This may require minimal vegetation clearing of five to ten feet wide across the river/creek. In addition, the horizontal directional drilling process (HDD) uses drilling muds under pressure to drill the pipeline hole that has the risk of inadvertent returns, where the drilling muds may be pushed to the surface through subsurface cracks below the channels. This could occur in a dry channel or in a wetted channel that requires access for cleanup equipment such as vacuum trucks (or long lengths of hose), other containment and recovery equipment/materials, and foot traffic.

Impacts on the 123 drainages from open trench activities and/or the risk of inadvertent returns from the HDD crossings would require a Clean Water Act (CWA) Section 404 permit from the U.S. Army Corps of Engineers (Corps) and CWA Section 401 water quality certification from the Regional Water Quality Control Board (RWQCB). Drainages that are not tributary to a navigable waters of the U.S., and/or isolated wetlands considered waters of the State not under Corps jurisdiction may be subject to Waste Discharge Requirements under the California Porter Cologne Water Quality Control Act. The California Department of Fish and Wildlife (CDFW) regulates the alteration of the bed, bank, or channel of waters of the state and impacts on riparian habitat through the CDFW Code 1602 Streambed Alteration Agreement program. As such, impacts on waters of the U.S./State would be considered a potentially significant but mitigable impact.

7.0 MITIGATION RECOMMENDATIONS

The analysis of impacts on biological resources as described in Section 6.0 suggests that there would be significant impacts on common and special-status plant and wildlife species. The following mitigation measures are recommended to avoid, minimize, and compensate for impacts to the extent feasible to mitigate impacts on biological resources to a less than significant level.

ENVIRONMENTAL AWARENESS TRAINING & ONSITE BIOLOGICAL MONITORING

- *A Worker Environmental Awareness Program shall be developed and implemented for all personnel that could access the site prior to commencing any disturbance activities. The program shall consist of an on-site or center presentation that will describe the locations and types of sensitive plant, wildlife, and sensitive natural communities (collectively, "Biological Resources")*

on and near the site, an overview of the laws and regulations governing the protection of Biological Resources, the reasons for protecting the Biological Resources, the specific protection and avoidance measures that are applicable to the site, and the identity of designated points of contact should questions or issues arise, including the qualified biological monitor(s). The program shall provide training to recognize, avoid and report to applicable qualified biologists any Biological Resources on the site.

- *A biological monitor shall be onsite during project construction to ensure permit compliance and implementation of the avoidance and minimization measures required as part of project approvals.*

RARE PLANT AND NATIVE PLANT COMMUNITY IMPACTS MITIGATION MEASURES

The proposed Project will for the most part temporarily impact the native habitats through the project alignment. The project includes the salvaging topsoil and restoration of disturbed areas with at a minimum a native seed mix that makes general habitat and vegetation impacts less than significant as the alignment will remain vegetated over time. Temporary impacts on valley needlegrass grassland and rare plants remain potentially significant that would require mitigation measures beyond the restoration seeding program. Impacts on riparian habitats are treated under waters of the U.S./State mitigation recommendations below. The Restoration Plan and site-specific example plan sheets included as Appendix E will be implemented to restore vegetative cover to the *Temporary Construction Corridor* that will help reduce potentially significant temporary impacts from project implementation. The following recommended mitigation measures would reduce potentially significant impacts on valley needlegrass grassland and rare plants to a less than significant level.

VALLEY NEEDLEGRASS GRASSLAND HABITAT

- *The valley needlegrass grassland habitat areas present within the project alignment shall be avoided to the greatest extent feasible with the limits of disturbance clearly delineated by a qualified biological monitor with flagging, lath and tape, or construction fencing.*
- *Where avoidance is not feasible, PPC shall develop and implement a habitat restoration plan that includes a salvage and replanting program of impacted surface material and purple needle grass clumps. Salvaged native plant material collected and maintained (watered as needed) onsite shall be replanted onsite to restore areas of temporary disturbance.*
- *Valley needlegrass grassland habitat mitigation shall be considered successful if greater than 10 percent cover of purple needlegrass from seeding and salvage and replanting efforts is expressed within two years following construction.*
- *Restoration seed mixes shall include species compatible and appropriate individually to the four ecoregions where purple needlegrass occurs as determined by a qualified biologist.*

ANNUAL RARE PLANT AVOIDANCE AND MINIMIZATION MEASURES

Temporary impacts from project construction on annual rare plants observed along the *BSA* alignment includes the Gaviota tarplant, California jewelflower, Lemmon's jewelflower, Kern mallow, and San Joaquin woolythreads. Given the 12 to 18-month project schedule, only one growing season is likely impacted.

- *To the extent feasible, project construction in areas supporting rare annual plant species shall be conducted during the dormant season before annual germination or after seed set as determined by a qualified biologist.*
    - *Ground disturbance shall be minimized to the pipeline trenching and soil stockpile areas only in areas identified with rare plant occurrences. All other work areas shall be mowed to minimize disruption and impacts to the soil stability and seed bank resource.*
    - *If allowable by the USFWS and CDFW in the permitting process, in the year(s) before project construction in anticipation of construction not being feasible before germination or after seed set of annual rare plants, a seed collection and storage program could be implemented for use in the post construction restoration activities.*

  Under the above scenario, mowing the majority of the work area, the salvage and use of topsoil for finished grade along the excavation, and seed collection if allowable by the agencies would sufficiently reduce potentially significant impacts on one season of annual rare plant species to a less than significant level.

- *If construction outside the germination to seed set plant growth window is not feasible in areas that could support annual rare plants, then pre-construction surveys shall be conducted by a qualified biologist to determine the location and extent of rare plant occurrences.*
    - *The disturbance footprint width shall be narrowed to the extent feasible to avoid and minimize impacts on rare plants.*
    - *Impacted areas of annual rare plants identified in the pre-construction surveys that cannot be avoided with the limited work zone, and impacted areas, shall be vacuum mowed to salvage plant material that is stored to dry out (so it does not rot) and spread back in the disturbance footprint as part of the onsite restoration.*
    - *If allowable by the USFWS and CDFW in the permitting process, in the year(s) before project construction in anticipation of construction not being feasible before germination or after seed set of annual rare plants, a seed collection and storage program could be implemented for use in the post construction restoration activities.*

  Under the above scenario, minimizing the disturbance work area, the salvage, storage, and use of available seed and plant material, along with use of salvaged topsoil for finished grade along the excavation would sufficiently reduce potentially significant impacts on one season of annual rare plant species to a less than significant level.

GAVIOTA TARPLANT COMPENSATORY MITIGATION

In 1995, All American Pipeline (AAPL) (successor company PAAP) and Chevron Oil (Chevron) established the 35-acre Gaviota Tarplant Ecological Reserve (Reserve) as mitigation for permitted projects (CDFG Tracking No. 2081-1994-085-5). Ownership of the Reserve was then transferred, along with an endowment, to California Department of Fish and Game (CDFG; currently California Department of Fish and Wildlife CDFW). The Reserve has a dedicated perpetual conservation easement and is owned and managed by CDFW. Additional or excess "credits" were made available in the Reserve, as documented in the September 22, 1995 Mitigation and Management Plan (Management Plan) and pursuant to the October 23, 1995, Management Agreement (Tracking No. 2081-1994-085-5). As described in Section 5 of the Management Agreement, the 35-acre Reserve was "classified" into three types of habitat based on the suitability for the Gaviota tarplant. Class A: known to contain Gaviota tarplant populations in high to

medium densities and high quality plants requiring no enhancement; Class B: unoccupied habitat with potential for enhancement; and Class C: areas that do not currently support Gaviota tarplant and do not have the potential for enhancement. The Management Agreement stipulates that all Class A habitat (10.7 acres) would be credited to a mitigation bank, with 0.7 acres debited from the bank for the impacts addressed within the Agreement and the 10 remaining Class A acres of credits made available to AAPL and Chevron for future use. The Reserve is located in the immediate vicinity of the Project route, and CDFW has indicated that at least 4.0 acres of credits are available to PAAP for use for the Project (CDFW, Steve Gibson and Kelly Schmoker, April 2020, *Pers. Commun.*). As such, compensatory mitigation for the 0.28 acre of impacts on Gaviota tarplant will be at a 3:1 ratio of impacts rounding up to 1.0 acre use of credits from the 4.0 acres of available credits per the Management Agreement. See additional Gaviota tarplant mitigation details in Appendix H.

OAK TREE IMPACT AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES

Implementation of the proposed Project shall avoid removal and impacts on oak trees to the maximum extent feasible. While upwards of 1,902 oak trees have been mapped as removal within the *Temporary Construction Corridor*, much of this may be canopy of large trees or the outside edge of valley oak tree canopy overhanging the *Temporary Construction Corridor* that were avoided during the original pipeline construction. As discussed above, the linear and widely spread project impacts on oaks would not substantially fragment oak woodland habitat in a manner that would disrupt wildlife behavior or movement, therefore impacts on oak woodland habitat are considered less than significant. Oak tree avoidance, minimization, and compensation measures shall include:

- *All oak tree impacts shall be noted on the construction plans and clearly marked in the field as to whether it is to be removed or pruned.*
- *Narrowing the disturbance footprint to avoid oak tree impacts/removal to the extent feasible and to prune trees instead of removal wherever feasible.*
- *Moving the pipeline alignment and excavation trench to the extent feasible to avoid oak tree impacts/removal.*
- *Oak tree pruning and root zone trench encroachment shall be overseen by a qualified biologist or certified arborist to implement current accepted practices to minimize mortality and/or long term effects on tree health following project implementation.*
- *A rigorous compensatory oak tree planting program along the project alignment may not be feasible given the need to maintain the Permanent Maintenance Corridor for ongoing inspection and maintenance free of woody vegetation, and the remote nature of the project area making oak tree maintenance, irrigation and monitoring for success challenging. Santa Barbara County has a 10:1 and 15:1 replacement ration for live oaks and deciduous oaks, respectively, that surpasses San Luis Obispo or Kern County requirements. However, most of the potential oak tree impacts would occur in Santa Barbara County. Alternative compensatory mitigation measures could include:*
    - *Trees shall be measured, marked, and tallied in the field immediately ahead of construction. The tally shall be used to determine the number of trees to be replaced pursuant to the off-site oak tree mitigation program.*

- *Funding an oak tree restoration program on federal, state or local publicly held lands or open space preserves managed by the Santa Barbara Land Trust, Land Conservancy of San Luis Obispo, or otherwise held in conservation easements.*
- *Purchase of oak woodland habitat adjacent to existing public park lands or preserves with dedication to public or conservation entity for long term protection and management. Identification of lands that would be benefited by an oak woodland restoration effort could be part of this mitigation measure as well to offset the impacts from oak tree removal. This mitigation approach would combine the following elements as described in greater detail in Appendix H:*
    1. **Regenerative Land Management** to facilitate protection and enhancement of existing oak woodlands.
    2. **Preservation** of existing protected oaks on lands placed into conservation.
    3. **Natural Regeneration** & recruitment of oak seedlings and saplings.
    4. **Adaptive Land Management** techniques to ensure successful oak woodland establishment.

Under the above scenario, minimizing oak tree removal/impact by narrowing the disturbance work area and/or moving the alignment, and some form of onsite or offsite compensatory mitigation would sufficiently reduce potentially significant impacts oak trees to a less than significant level.

UPLAND NON-LISTED SPECIAL-STATUS AND COMMON WILDLIFE SPECIES AVOIDANCE AND MINIMIZATION MEASURES

- *Prior to ground disturbing activities, a qualified biologist shall conduct a pre-construction survey within 30 days in advance of initial ground disturbance* (*clearing, mowing, grubbing, grading, etc.*) *to identify whether any non-listed special-status upland wildlife species* (*i.e. coast horned lizard, silvery legless lizard, San Joaquin coachwhip, American badger, wintering burrowing owl, etc.*) *are using any portion of the project disturbance footprint.*
- *Within 30 days prior to any tree removals, a qualified biologist shall conduct a pre-construction survey for bat roosts. Should a bat roost be found, then an assessment of the type of use shall be made (natal roost, nomadic/transitory roost, etc.) and appropriate avoidance measures implemented until the bats no longer use the tree.*
- *The Temporary Disturbance Corridor shall be established with no work allowed outside of the delineated construction limits.*
- *A biological monitor shall be present during initial ground disturbing and vegetation removal activities to attempt relocation efforts for the ground dwelling wildlife that may be present. Further:*
    - *Active natal dens for the American badger shall be avoided until young are self-sufficient.*
    - *One way exclusion doors can be used to encourage wintering burrowing owls to relocate outside of the project disturbance footprint.*

Under the above scenario the passive avoidance measures, and salvage and relocation efforts for non-listed wildlife species would reduce potentially significant impacts to a less than significant level.

NESTING BIRDS

- *Vegetation removal, including oak tree removal and pruning, and initial ground disturbance for any project element supporting habitat (excluding areas mapped as developed) shall be conducted between September 1st and February 1st outside of the nesting season for birds. If vegetation removal is planned for the bird nesting season (February 1st to August 31st), then preconstruction nesting bird surveys shall be conducted by a qualified biologist to determine if any active nests would be impacted by project construction. If no active nests are found within the project disturbance footprint, then no further mitigation shall be required.*
- *If any active nests are found that would be impacted by construction, then the nest sites shall be avoided with the establishment of a non-disturbance buffer zone around active nests as determined by a qualified biologist. Non-disturbance buffer zones shall be established by a qualified biological monitor taking into consideration the species, context of the nest site in relationship to project disturbance, sightlines, intervening topography, and proximity and potential effect of construction activity/noise. Nest sites shall be avoided and protected with the non-disturbance buffer zone until the adults and young of the year are no longer reliant on the nest site for survival as determined by a qualified biologist.*
- *Potential impacts on the southwestern willow flycatcher and the least Bell's vireo shall be avoided by scheduling construction across the Santa Ynez River and Sisquoc River outside the breeding season when the birds are not present.*

Under the above scenario avoiding disturbance or take of an active nest along the linear project corridor would reduce potentially significant impacts on nesting birds to a less-than-significant level.

CALIFORNIA CONDOR

The California could be exposed to proposed Project construction elements by attracting curious individuals to the construction activities. Potential impacts are expected to be minimal given the proposed Project location in the Cuyama Valley, Temblor Ranch and San Joaquin Valley ecoregions, and the limited agency approved hazing of individuals who may show up at an active proposed Project area. No mortality is expected or authorized. Implementation of the applicable Avoidance and Minimization Measures (AMMs) detailed in the Threatened and Endangered Species Biological Assessment (Appendix F) should limit the attraction to the work site, potential ingestion hazards to condors, and avoid any significant impacts on the California condor.

RIPARIAN AND AQUATIC SPECIES IMPACT AVOIDANCE AND MINIMIZATION MEASURES

The creeks and rivers along the Gaviota Coast are known to support formally listed steelhead, tidewater goby, and California red-legged frog. Other special-status species such as the foothill yellow-legged frog, western pond turtle, and two-striped garter snake may also occur along the coastal drainages. With the exception of the tidewater goby, these same species are recorded or have suitable habitat in the Coastal Hills Ecoregion creeks and rivers as well. The Santa Ynez River is steelhead Critical Habitat and also has recorded occurrences of the migratory breeding season southwestern willow flycatcher and least Bell's vireo in the dense riparian jungle. The arroyo toad is known from the Sisquoc River with the Cuyama River within the potential range of the species. The project proposes to bore or use casing underneath these major rivers and creeks supporting listed and other special-status species that essentially avoids impacts on these species. While the major habitat disturbance is avoided by boring, access at least on

foot, is required to follow and locate the drill bit. This may require minimal vegetation clearing of five to ten feet wide across the river/creek. In addition, the horizontal directional drilling process (HDD) uses drilling muds under pressure to drill the pipeline hole that has the risk of inadvertent returns, where the drilling muds may be pushed to the surface through subsurface cracks below the channels. This could occur in a dry channel or in a wetted channel that requires access for cleanup equipment such as vacuum trucks (or long lengths of hose), other containment and recovery equipment/materials, and foot traffic. Further, the inadvertent release of drilling fluids into an aquatic environment could increase turbidity that could occlude the gills and/or eggs of fish and larval amphibians and exposure to contaminants from drilling fluid additives. Therefore, there remains the possibility of take of a listed species and/or modification of habitat that would be considered a potentially significant impact. Impacts would be temporary and short term but would require regulatory compliance for both listed species and waters of the U.S./State impacts. The following recommended mitigation measures would reduce potentially significant impacts on special-status aquatic/riparian species and waters of the U.S./State to a less than significant level.

- *Prior to commencement of any ground disturbing activities, PPC shall obtain compliance with the Federal Endangered Species Act* (*FESA*) *and California Endangered Species Act* (*CESA*) *for potential impacts on the southwestern willow flycatcher and least Bell's vireo, and FESA compliance for the steelhead, tidewater goby, and California red-legged frog, in the form of take permits/ authorizations or written documentation from the U.S. Fish and Wildlife Service* (*USFWS*)*, National Marine Fisheries (NMFS), and CDFW that the proposed Project would not result in take of these species, or would not otherwise adversely affect these species. Should a take permit/authorization be required, or conditions imposed by the USFWS, NMFS, and/or CDFW to ensure that no take would result from the project or impacts are avoided and minimized, PPC shall implement all the terms and conditions of the USFWS/NMFS/CDFW permits, authorizations, or recommendations to the satisfaction of these agencies. The USFWS/NMFS/CDFW can only provide take authorization for projects that demonstrate the species affected would be left in as good as or better condition than before the project was implemented. Additionally, the USFWS/ NMFS/CDFW cannot authorize any project that would jeopardize the continued existence of a listed species. Acceptable mitigation for listed species is typically onsite conservation, restoration, creation, and/or protection of occupied habitat in perpetuity, offsite conservation, restoration, creation, and/or and protection of occupied habitat in perpetuity, and/or purchase of mitigation credits from an agency approved mitigation bank at an appropriate ratio dependent on the location and size of the proposed Project impacts.*

- *Prior to commencement of any ground disturbing activities, PPC shall obtain compliance in the form of a permit from the Corps or written documentation from the Corps that no permit would be required for the proposed Project . Should a permit be required, PPC shall implement all the terms and conditions of the permit to the satisfaction of the Corps. Corps permits and authorizations require applicants to demonstrate that the proposed Project has been designed and will be implemented in a manner that avoids and minimizes impacts on aquatic resources. In addition, the Corps may require compensatory mitigation for unavoidable impacts to restore original contours and to achieve the goal of a no net loss of wetland values and functions. Issuance of a Corps permit also requires a Section 401 Water Quality Certification from the RWQCB that may also carry conditions to protect water quality and restore habitat.*

For impacts on waters of the State and/or riparian habitat, PPC shall obtain compliance with Section 1602 of the California Fish and Game Code (Streambed Alteration Agreements) in the form of a completed Streambed Alteration Agreement or written documentation from the CDFW that no agreement would be required for the proposed Project . Should an agreement be required, PPC shall implement all the terms and conditions of the agreement to the satisfaction of the CDFW. The CDFW Streambed Alteration Agreement process encourages applicants to demonstrate that the proposed Project has been designed and will be implemented in a manner that avoids and minimizes impacts on riparian habitat and the stream zone. In addition, CDFW may impose conditions necessary to protect fish and wildlife resources and require compensatory mitigation for impacts on riparian habitat in the form of habitat restoration of disturbed areas and restoration of original contours where feasible.

- *Implement the applicable Avoidance and Minimization Measures (AMMs) detailed in the Threatened and Endangered Species Biological Assessment (Appendix F).*

Under the above scenario avoiding substantial disturbance to riparian and/or aquatic habitats by using the boring method, and regulatory compliance and associated conditions to further avoid, minimize and compensate for impacts from take, would reduce potentially significant impacts on special-status riparian and aquatic species to a less-than-significant level.

CALIFORNIA TIGER SALAMANDER UPLAND DISPERSAL HABITAT IMPACT AVOIDANCE AND MINIMIZATION MEASURES

The Californian tiger salamander (*Ambystoma californiense*; CTS) could be exposed to proposed Project elements along an approximately 7,920 linear-foot section of proposed Project alignment that falls within the 1.3-mile upland dispersal range from USFWS identified potential breeding pond ZACR-5 located 0.65 mile (1,175m) from the proposed Project alignment. CTS could be exposed to proposed Project elements along an approximately 17,424 linear-foot section of proposed Project alignment that falls within the 1.3-mile upland dispersal range from USFWS identified potential breeding ponds SISQ-22, SISQ-23, SISQ-24, SISQ-26, and SISQ-32 located from 0.09 mile (143m) to 0.88 mile (1,417m) from the proposed Project alignment (see Figures 5.1 and 5.2). Potential proposed Project impacts include disturbance to juvenile or adult life stages from vehicle/equipment access and trench excavation that could result in mortality to undetected CTS in underground refuges. Pre-construction surveys and construction monitoring to salvage and relocate individuals discovered during construction would minimize direct mortality but could disrupt the upland refuge behavior of this species. There would be no destruction or adverse modification of CTS Designated Critical Habitat as none occurs in the project alignment.

The USFWS uses the Searcy Model to identify loss of reproductive value (RV) across the landscape for projects within 1.3 miles from a USFWS identified known or potential CTS breeding pond. The USFWS ran the Searcy Model for the proposed Project and determined the project effects would be the loss of a total of 13,038 RV within the project footprint from all the above listed potential CTS breeding ponds. The USFWS determined the project impacts would be temporary allowing CTS movement across the project alignment after construction and would not create a shade RV impact.

The following recommended mitigation measure assumes that the USFWS and CDFW will require take authorization and compensatory mitigation for project impacts on CTS upland habitat even though the project is outside of the metapopulation boundary as defined by USFWS.

- *Prior to commencement of any ground disturbing activities, PPC shall obtain incidental take authorization (if necessary) under the Federal Endangered Species Act (FESA) and California Endangered Species Act (CESA) for potential take of the California tiger salamander.*
- *A biological monitor shall be present during initial ground disturbing and vegetation removal activities within 1.3 miles of the potential CTS pond ZACR-5 as shown on Figure 5 in Appendix A to attempt salvage and relocation efforts for the CTS that may be present.*
- *If compensatory mitigation is required by the USFWS/CDFW for the temporary and permanent impacts, then using the Searcy Model PPC shall provide independently or by purchase of 13,038 RV plus a 0.2 out of metapopulation adjustment (2,608 RV) for a total of 15,646 CTS mitigation credits at the La Purisima CTS Mitigation Bank or other agency approved mitigation bank or mitigation site.*
- *Implement the applicable Avoidance and Minimization Measures (AMMs) detailed in the Threatened and Endangered Species Biological Assessment (Appendix F).*

Under the above scenario the regulatory compliance, salvage and relocation effort, and compensatory mitigation for the CTS upland habitat impacts would reduce potentially significant impacts to a less than significant level.

KERN PRIMROSE SPHINX MOTH IMPACT AVOIDANCE AND MINIMIZATION MEASURES

The host plant Mojave sun cup was observed within the *BSA* in the Cuyama, Temblor Range and San Joaquin Valley ecoregions that have the potential to support the Kern primrose sphynx moth. The following recommended mitigation measures would reduce potentially significant impacts on this species to a less than significant level.

- *If feasible, conduct the activity during the species' flight season (January 15 to April 15).*
- *During the flight season, the biological monitor shall conduct a pre-construction survey of the work area (including access roads) for basking or perched individuals. Any individuals encountered shall be allowed to vacate the area on their own accord or flushed or relocated out of harm's way.*
- *If feasible, flag and avoid any of the known host plants for the species observed within the immediate vicinity of the project disturbance.*
- *If impacts to known host plants cannot be avoided, the plants shall be salvaged and relocated to, stockpiled in adjacent suitable habitat.*
- *Implement the applicable Avoidance and Minimization Measures (AMMs) detailed in the Threatened and Endangered Species Biological Assessment (Appendix F).*

SAN JOAQUIN KIT FOX, NELSON'S ANTELOPE SQUIRREL, KANGAROO RATS, AND BADGER IMPACT AVOIDANCE AND MINIMIZATION MEASURES

Potential San Joaquin kit fox dens, abundant kangaroo rat activity, and many observations of Nelson's antelope ground squirrel were recorded in the Cuyama Valley, Temblor Range, and San Joaquin Valley ecoregions. There were probable badger dens in all ecoregions. The following recommended mitigation measures would reduce potentially significant impacts on these terrestrial burrowing mammals to a less than significant level.

- *Any potential San Joaquin kit fox dens (as defined in United States Fish and Wildlife Service 2011) detected during reconnaissance or focused/protocol surveys shall be reevaluated for species activity no more than 30 days prior to the commencement of ground disturbance. Potential kit fox dens shall be marked and a 50-foot avoidance buffer shall be delineated using brightly colored stakes and flagging or similar materials to prevent inadvertent damage to the potential den. If a potential den cannot feasibly be avoided, the den may be hand excavated in accordance with the United States Fish and Wildlife Service Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance (United States Fish and Wildlife Service 2011). If species activity is detected, the location shall be identified as a "known" kit fox den in accordance with the U.S. Fish and Wildlife Service species guidelines (United States Fish and Wildlife Service 2011). A minimum 100-foot buffer from any disturbance area shall be maintained for known dens and a minimum 500-foot buffer from any disturbance area shall be maintained for natal dens. No excavation of a known or natal den shall occur without prior authorization from the United States Fish and Wildlife Service and the California Department of Fish and Wildlife.*
- *All open trenches, excavations and stockpiled pipes shall be backfilled or covered at the end of each workday to prevent wildlife entrapment. If an excavation is too large to cover, escape ramps shall be installed at an incline ratio of no greater than 2:1.*
- *If trenches cannot be covered or backfilled at the end of each work day, all trenches and pipes shall be inspected for the presence of trapped wildlife each day prior to the commencement of work and at the end of the day.*

- *Implement the applicable Avoidance and Minimization Measures (AMMs) detailed in the Threatened and Endangered Species Biological Assessment (Appendix F).*

AMERICAN BADGER TAKE AVOIDANCE AND MINIMIZATION MEASURES

- *Occupied American badger dens detected during pre-disturbance surveys shall be flagged and ground-disturbing activities avoided within 50 feet of the den. Maternity dens shall be avoided and a minimum 200-foot buffer from disturbance shall be maintained during pup-rearing season (February 15 through July 1). Maternity dens must be avoided to the maximum extent feasible. If a maternity den cannot feasibly be avoided, the California Department of Fish and Wildlife must be contacted to identify appropriate impact minimization measures prior to initiating any disturbance that would affect the den, including potential passive relocation by excavation before or after the rearing season.*

KANGAROO RAT TAKE AVOIDANCE AND MINIMIZATION MEASURES

The Cuyama Valley, Temblor Range, and San Joaquin Valley ecoregions had abundant kangaroo rat precincts. No distinct evidence of giant kangaroo rat was observed in the Cuyama Valley and it is presumed to be the common and widespread Heerman's kangaroo rat. No trapping surveys were conducted as part of this study. Tipton and short nosed kangaroo rats range is in the San Joaquin Valley and are not expected in the western ecoregions. The following impact avoidance and minimization measures are recommended.

- *Pre-construction surveys shall be conducted to evaluate the kangaroo rat precincts to determine if the giant, Tipton, or short nosed kangaroo rats occupy the disturbance footprint. If needed, trapping studies shall be conducted for determination of species occupation. If none of the above species are present, then a biological monitor shall be present during initial ground disturbing*

and vegetation removal activities to attempt relocation efforts to the extent feasible to minimize general ground dwelling wildlife impacts.

- *If special-status kangaroo rats are identified in the disturbance footprint then:*
    - *With USFWS and CDFW take authorization, the work areas shall be cleared by trapping and passive relocation of kangaroo rats. Exclusionary fencing shall be installed to preclude reoccupation of the work area. A biological monitor shall be present daily to survey and remove kangaroo rats out of harm's way to the extent feasible.*
    - *Excavation and relocation of special-status kangaroo rats shall be avoided during the maternity season.*
- *Implement the applicable Avoidance and Minimization Measures (AMMs) detailed in the Threatened and Endangered Species Biological Assessment (Appendix F).*

BLUNT-NOSED LEOPARD LIZARD TAKE AVOIDANCE MEASURES

The blunt-nosed leopard lizard habitat assessment conducted in 2017 did not result in any observations in the Cuyama Valley or Temblor Ranch ecoregions. Variable habitat suitability was mapped based on observations of habitat elements conducive to BNLL such as prey, cover, and small mammal burrows (See Figures 6A-6J). BNLL were observed in the San Joaquin Valley Ecoregion near previously recorded CNDDB observations. The BNLL is a CDFW Fully Protected species so there is no regulatory mechanism, other than a Natural Communities Conservation Plan, to authorize take of the BNLL. As such, take avoidance is the only mitigation measure currently feasible for projects in BNLL habitat. The following details the recommended take avoidance mitigation measures for the BNLL.

- *No more than one year prior to ground disturbing activities, focused surveys following current California Department of Fish and Wildlife and United States Fish and Wildlife protocols for detection of this species or other methods approved by both agencies shall be conducted in all potential blunt-nosed leopard lizard habitat within the work site and a 300-foot total buffer area (150 feet each side of the pipeline). If no individual BNLL are observed during focused surveys, and surveys are current (e.g., completed in the same calendar year), then Project activities may proceed subject to construction monitoring in potential habitat areas BNLL to ensure that no take occurs.*
- *If blunt-nosed leopard lizards are detected during focused surveys, a blunt-nosed leopard lizard avoidance plan shall be prepared for the Project that will result in avoidance of incidental take of this species unless take is separately authorized under a Natural Communities Conservation Plan and appropriate federal authorization is obtained. At a minimum, the blunt-nosed leopard lizard avoidance plan shall be provided to the California Department of Fish and Wildlife and the County, and shall contain the following elements:*
    - *A Worker Environmental Awareness Program shall be implemented for all construction personnel before construction begins (see above).*
    - *During periods that are optimal for blunt-nosed leopard lizard activity (early spring through late fall), a qualified biologist will be present during all ground disturbing activities. The qualified biologist will check the Project site(s) and access route(s) daily during the blunt-nosed leopard lizard active season to determine presence or absence of lizards in or near the work areas. Monitoring by a qualified biologist is not required during periods of inactivity (the winter season).*

- *All open trenches or excavations shall be covered at the end of each workday or protected with the use of exclusion fencing, or escape ramps shall be installed at an incline ratio of no greater than 2:1. All trenches and pipes shall be inspected for the presence of wildlife each day prior to the commencement of work. If blunt-nosed leopard lizards are observed at the work site during construction, construction shall cease within a 250-foot radius and the United States Fish and Wildlife Service and the California Department of Fish and Wildlife shall be consulted to determine what additional measures would be necessary to prevent take of this species.*
- *Offsite locations where blunt-nosed leopard lizards have been observed or are likely to occur shall be clearly marked to prevent workers from driving off the road and to prevent inadvertent destruction of burrows. Barriers, such as exclusionary fencing may be installed. All construction equipment and construction personnel vehicles will be checked prior to moving to ensure no blunt-nosed leopard lizard are under equipment/vehicles.*
- *A speed limit of 10 miles per hour shall be posted and observed within 0.25 miles of any reported blunt-nosed leopard lizard observation.*
- *All individual blunt-nosed leopard lizards observed above-ground will be avoided. Any individual blunt-nosed leopard lizard that may enter the project site(s) would be allowed to leave unobstructed, and on its own accord. If a blunt-nosed leopard lizard is detected during biological monitoring or observed at any other point, the California Department of Fish and Wildlife and the United States Fish and Wildlife Service shall be notified to determine if additional measures would be necessary to prevent take of the species.*
- *Implement the applicable Avoidance and Minimization Measures (AMMs) detailed in the Threatened and Endangered Species Biological Assessment (Appendix F).*

8.0 CONCLUSIONS

In conclusion, based on the findings described above establishing the existing conditions of biological resources within the *BSA*, and incorporation of the recommended regulatory compliance and mitigation measures, implementation of the proposed Project would not result in any substantial adverse effects on or significant impacts to biological, botanical, wetland, or riparian habitat resources. Therefore, with mitigation measures incorporated into the project, direct and indirect project impacts on biological resources could be mitigated to a less than significant level. As established in this biological assessment, this conclusion is founded on the following:

- The existing conditions of the project alignment is mostly through the existing narrow openings in woodland and shrubland habitats from the current pipeline construction and maintenance pipeline alignment.
- Impacts on habitats are small areas scattered along the 123-mile project alignment and do not constitute a large patch of habitat disturbance, habitat fragmentation, or habitat type conversion.
- Short-term and temporary impacts from a 12 to 18-month construction schedule through one flowering/nesting/breeding season for common and special-status plants and wildlife.

- Annual rare plant impacts from surface disturbance and removal of annual grasses may encourage annual rare plant growth for several years from the reduction in competition from the non-native annual grasses.
- The establishment of herbaceous vegetation and the minimal maintenance and vegetation management activities along the *Permanent Maintenance Corridor* allowing the benefits of an ecotone for wildlife that favor habitat edges for movement and foraging.
- The project alignment runs through a vast landscape of varied habitats that extend well beyond the relatively narrow *Temporary Construction Corridor* and *Permanent Maintenance Corridor.*

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Gaviota Tarplant Ecological Reserve

Relevant Photos

Gaviota Tarplant Ecological Reserve (photo June 4, 2020)

Gaviota Tarplant Observation on the Gaviota Tarplant Ecological Reserve (photo June 4, 2020)

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

15 CFR Part 922

[Docket No. 240829–0230]

RIN 0648–BL31

Chumash Heritage National Marine Sanctuary

AGENCY: Office of National Marine Sanctuaries (ONMS), National Ocean Service, National Oceanic and Atmospheric Administration (NOAA), Department of Commerce.

ACTION: Final rule.

SUMMARY: NOAA is designating Chumash Heritage National Marine Sanctuary (CHNMS) in the waters along and offshore of the coast of central California to recognize the national significance of the area's ecological, historical, archaeological, and cultural resources and to manage this special place as part of the National Marine Sanctuary System. The sanctuary boundary encompasses 4,543 square miles (mi²) (3,431 square nautical miles (nmi²)) of submerged lands and marine waters from approximately two miles southeast of the marina at Diablo Canyon Power Plant in San Luis Obispo County to Naples along the Gaviota Coast in Santa Barbara County. NOAA is establishing the terms of designation for CHNMS and the regulations to implement the national marine sanctuary designation. NOAA has also published a final environmental impact statement (final EIS), final management plan, and Record of Decision.

DATES: *Effective Date:* Pursuant to section 304(b) of the National Marine Sanctuaries Act (NMSA) (16 U.S.C. 1434(b)), the designation and regulations shall take effect and become final after the close of a review period of forty-five days of continuous session of Congress, beginning on the date on which this Federal rulemaking is published, which is October 16, 2024. During that same review period, the Governor of the State of California may certify to the Secretary of Commerce that the designation or any of its terms are unacceptable, in which case the designation or the unacceptable term will not take effect in State waters of the sanctuary. The public can track days of Congressional session at the following website: *https://www.congress.gov/days-in-session*. NOAA will publish an announcement of the effective date of the final regulations in the **Federal Register**.

ADDRESSES: Copies of the final EIS and management plan described in this rule and the Record of Decision (ROD), and additional background materials are available at: *https://sanctuaries.noaa.gov/chumash-heritage/*.

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SUPPLEMENTARY INFORMATION:

I. Introduction

A. Background

The National Marine Sanctuaries Act (NMSA; 16 U.S.C. 1431 *et seq.*) authorizes the Secretary of Commerce (Secretary) to designate and protect as national marine sanctuaries areas of the marine environment that are of special national significance due to their conservation, recreational, ecological, historical, scientific, cultural, archaeological, educational, or esthetic qualities. Day-to-day management of national marine sanctuaries has been delegated by the Secretary to ONMS.

NOAA is designating CHNMS in the waters along and offshore of the coast of central California to recognize the national significance of the area's ecological, historical, archaeological, and cultural resources and to manage this special place as part of the National Marine Sanctuary System. The sanctuary boundary will encompass 4,543 mi² (3,431 nmi²) of submerged lands and marine waters from approximately two miles southeast of the Diablo Canyon marina in San Luis Obispo County to Naples along the Gaviota Coast in Santa Barbara County. This boundary reflects NOAA's Final Preferred Alternative, which is described in the final environmental impact statement (final EIS) as Alternative 4 (Combined Smallest) and Sub-Alternative 5b (Gaviota Coast Extension), plus a small area (151 mi², 114 nmi²) in the center of the Santa Lucia Bank analyzed as part of the Initial Boundary Alternative, thereby creating a straight line across the northern section of the new sanctuary. NOAA has also included in the final management plan a framework to provide collaborative co-stewardship with the local Tribes and Indigenous communities [1] in this area for CHNMS.

The specific area being designated as a national marine sanctuary includes the coastline of central California from approximately two miles southeast of Diablo Canyon marina, south along the San Luis Obispo County coast and a portion of Santa Barbara County to approximately two miles south of Dos Pueblos Creek near the township of Naples along the Gaviota Coast. Roughly 116 miles of the mainland coast (132 miles if including the shoreline of offshore rocks and islands) are part of the sanctuary designation. The sanctuary's boundaries also include the State waters off the Gaviota coast, the offshore marine waters from the western end of Channel Islands National Marine Sanctuary (CINMS), and northwards, including about half of the Santa Lucia Bank, to approximately 55 miles west of the Santa Maria River mouth, and then east and then north to the point of origin at south of the Diablo Canyon marina. This area out to approximately 60 miles (51 nmi) from shore includes numerous offshore features such as the Santa Lucia Bank, portions of its escarpment, Rodriguez Seamount, Arguello Canyon, and other offshore features and resources. Coastal watersheds drain into this area via multiple outlets, including the Santa Maria and Santa Ynez river mouths and several other coastal streams and rivers. Strong coastal winds drive seasonal upwelling which fuels the area's high biological productivity, supporting dense aggregations of marine life. Specifically, winds offshore of Point Arguello/Point Conception initiate a powerful upwelling process that nourishes other nearby productive ecosystems, such as those located within CINMS. The presence of a biogeographic transition zone around Point Conception, where temperate waters from the north meet waters from the subtropics, creates an area of nationally-significant biodiversity in sea birds, marine mammals, invertebrates, and fishes.

For more than 10,000 years, the productive and diverse ecosystems in the region have been essential to the way of life of Indigenous Peoples in the region, in particular the Chumash, one of the few ocean-going bands among the First Peoples of the Pacific Coast. Tribal connections to the region include traditional and ancestral homelands, customary uses of marine resources for food and cultural connections, and

[1] This rule uses ''Tribes and Indigenous communities'' and other related phrases to refer broadly to federally recognized Tribes, Native American Tribes that are not federally recognized, and other Indigenous groups and organizations. When appropriate to reference the federally recognized Tribe in this area, the Santa Ynez Band of Chumash Indians, the rule specifically names that Tribe. When appropriate to reference federally recognized Tribes more broadly, the EIS uses the terms ''federally recognized Tribe(s)'' or ''federally recognized Tribal Nation(s).'' As such, use of the term ''Tribe'' or ''Tribal'' is not intended to refer only to federally recognized Tribes unless otherwise specified.

§ 922.230 Boundary.

Chumash Heritage National Marine Sanctuary covers 4,543 mi^2 (3,431 nmi^2) of coastal and ocean waters and the submerged lands thereunder, spanning 116 miles along the central California coast off the counties of San Luis Obispo and Santa Barbara. The sanctuary spans a maximum distance of 60 miles from shore, and reaches a maximum depth of 11,580 feet below sea level. Describing the boundary in a clockwise fashion, the Final Preferred Alternative starts along the coast approximately two miles southeast of the breakwater for the Diablo Canyon Power Plant marina, then runs south along the mean high water line through San Luis Obispo County and northern and western Santa Barbara County to the eastern end of the Naples Marine Conservation Area on the Gaviota Coast. Along this stretch, the harbor areas at Port San Luis and Vandenberg Space Force Base near Point Arguello are excluded from the sanctuary. Offshore, the boundary extends from the western edge of Channel Islands National Marine Sanctuary, around important features like Rodriguez Seamount, most of Arguello Canyon, and about half of the Santa Lucia Bank and part of its escarpment. At a point approximately 55 miles offshore of the Santa Maria River mouth, the boundary extends east 43 miles, then due north for 12 miles to the point of origin south of the Diablo Canyon Power Plant marina. This narrative boundary description is provided to facilitate public understanding, but please refer to the formal boundary description and the precise boundary coordinates in Appendix A to this subpart.

§ 922.231 Definitions.

In addition to the definitions found in § 922.11, the following terms are defined for purposes of this subpart:

Beneficial use of dredged material means the use of dredged material removed from the public harbor adjacent to the Sanctuary (Port San Luis) that is determined by the Director to be suitable as a resource for habitat protection or restoration purposes. Beneficial use of dredged material is not disposal of dredged material.

Rodriguez Seamount Management Zone means the area bounded by geodetic lines connecting a heptagon generally centered on the top of the Rodriguez Seamount, and consists of approximately 570 mi^2 (430 nmi^2) of ocean waters and the submerged lands thereunder. The northeast corner of this zone is located approximately 27 miles southwest of Point Conception off the coast of Santa Barbara County. Exact coordinates for the Rodriguez Seamount Management Zone boundary are provided in appendix B to this subpart.

§ 922.232 Prohibited or otherwise regulated activities.

(a) Except as specified in paragraphs (b) through (e) and paragraph (g) of this section, the following activities are prohibited and thus are unlawful for any person to conduct or to cause to be conducted:

(1) Exploring for, developing, or producing oil, gas, or minerals within the Sanctuary, except for oil and gas production, which includes well abandonment, pursuant to existing leases or lease units in effect on the effective date of Sanctuary designation ([EFFECTIVE DATE OF FINAL RULE]).

(2)(i) Discharging or depositing from within or into the Sanctuary, other than from a cruise ship, any material or other matter, except:

(A) Fish, fish parts, chumming materials, or bait used in or resulting from lawful fishing activities within the Sanctuary, provided that such discharge or deposit is during the conduct of lawful fishing activities within the Sanctuary;

(B) For a vessel less than 300 gross registered tons (GRT), or a vessel 300 GRT or greater without sufficient holding tank capacity to hold sewage while within the Sanctuary, clean effluent generated incidental to vessel use by an operable Type I or II marine sanitation device (U.S. Coast Guard classification) approved in accordance with section 312 of the Federal Water Pollution Control Act, as amended (FWPCA), 33 U.S.C. 1322. Vessel operators must lock all marine sanitation devices in a manner that prevents discharge or deposit of untreated sewage;

(C) Clean vessel deck wash down, clean vessel engine cooling water, clean vessel generator cooling water, clean bilge water, or anchor wash;

(D) For a vessel less than 300 GRT, or a vessel 300 GRT or greater without sufficient holding capacity to hold graywater while within the Sanctuary, clean graywater as defined by section 312 of the FWPCA;

(E) Vessel engine or generator exhaust;

(F) Beyond 3 nautical miles from shore, sewage and non-clean graywater as defined by section 312 of the FWPCA generated incidental to vessel use by a U.S. Coast Guard vessel without sufficient holding tank capacity and without a Type I or II marine sanitation device; and beyond 12 nautical miles from shore, ammunition, pyrotechnics, or other materials directly related to training for search and rescue and live ammunition activities conducted by U.S. Coast Guard vessels and aircraft;

(G) Dredged material deposited at disposal sites within the Sanctuary authorized by the U.S. Environmental Protection Agency (EPA), in consultation with the U.S. Army Corps of Engineers, prior to the effective date of Sanctuary designation ([EFFECTIVE DATE OF FINAL RULE]); or

(H) Discharges incidental and necessary to oil and gas production within or into reservoirs contained within existing leases or lease units in effect on the effective date of Sanctuary designation ([EFFECTIVE DATE OF FINAL RULE]) from Platform Irene or Platform Heritage, including well abandonment.

(ii) Discharging or depositing from within or into the Sanctuary any material or other matter from a cruise ship except clean vessel engine cooling water, clean vessel generator cooling water, vessel engine or generator exhaust, clean bilge water, or anchor wash.

(iii) Discharging or depositing from beyond the boundary of the Sanctuary any material or other matter that subsequently enters the Sanctuary and injures a Sanctuary resource or quality, except material or other matter listed as exceptions in paragraphs (a)(2)(i)(A) through (F) and (a)(2)(ii) of this section.

(3) Drilling into, dredging, or otherwise altering the submerged lands of the Sanctuary; or constructing, placing, or abandoning any structure, material, or other matter on or in the submerged lands of the Sanctuary, except as incidental and necessary to:

(i) Conduct lawful fishing activities or lawful kelp harvesting;

(ii) Anchor a vessel;

(iii) Install or maintain an authorized navigational aid;

(iv) Repair, replace, or rehabilitate an existing dock, pier, breakwater, or jetty;

(v) Conduct maintenance dredging of entrance channels for harbors in existence prior to the effective date of Sanctuary designation ([EFFECTIVE DATE OF FINAL RULE]); or,

(vi) Drill, maintain, or abandon a well necessary for purposes related to oil and gas production pursuant to existing leases or lease units in effect on the effective date of Sanctuary designation ([EFFECTIVE DATE OF FINAL RULE]) from Platform Irene or Platform Heritage.

(vii) The exceptions listed in paragraphs (a)(3)(ii) through (vi) of this section do not apply in the Rodriguez Seamount Management Zone, the boundary of which is defined in appendix B to this subpart.

(4) Moving, removing, or injuring, or attempting to move, remove, or injure, a Sanctuary historical resource; or possessing or attempting to possess a Sanctuary historical resource, except as necessary for valid law enforcement purposes. This prohibition does not apply to, moving, removing, or injury resulting incidentally from lawful kelp harvesting or lawful fishing activities.

(5) Taking any marine mammal, sea turtle, or bird within or above the Sanctuary, except as authorized by the Marine Mammal Protection Act, as amended (MMPA), 16 U.S.C. 1361 *et seq.,* Endangered Species Act, as amended (ESA), 16 U.S.C. 1531 *et seq.,* Migratory Bird Treaty Act, as amended (MBTA), 16 U.S.C. 703 *et seq.,* or any regulation promulgated under the MMPA, ESA, or MBTA.

(6) Possessing within the Sanctuary (regardless of where taken, moved, or removed from), any marine mammal, sea turtle, or bird, except as authorized by the MMPA, ESA, MBTA, by any regulation promulgated under the MMPA, ESA, or MBTA, or as necessary for valid law enforcement purposes.

(7) Deserting a vessel aground, at anchor, or adrift in the Sanctuary or leaving harmful matter aboard a grounded or deserted vessel in the Sanctuary.

(8) Attracting any white shark within the Sanctuary.

(9)(i) Moving, removing, taking, collecting, catching, harvesting, disturbing, breaking, cutting, or otherwise injuring, or attempting to move, remove, take, collect, catch, harvest, disturb, break, cut, or otherwise injure, any Sanctuary resource located more than 1,500 ft. below the sea surface within the Rodriguez Seamount Management Zone, as defined in appendix B to this subpart. This prohibition does not apply to lawful fishing, which is regulated pursuant to 50 CFR part 660.

(ii) Possessing any Sanctuary resource, the source of which is more than 1,500 ft. below the sea surface within the Rodriguez Seamount Management Zone, except as necessary for valid law enforcement purposes. This prohibition does not apply to possession of fish resulting from lawful fishing, which is regulated pursuant to 50 CFR part 660.

(10) Introducing or otherwise releasing from within or into the Sanctuary an introduced species, except striped bass (*Morone saxatilis*) released during catch and release fishing activity.

(11) Interfering with, obstructing, delaying, or preventing an investigation, search, seizure, or disposition of seized property in connection with enforcement of the Act or any regulation or permit issued under the Act.

(b) The prohibitions in paragraphs (a)(2) through (7) and (9) of this section do not apply to an activity necessary to respond to an emergency threatening life, property, or the environment.

(c)(1) The prohibitions in paragraphs (a)(2) through (7) and (9) and (10) of this section do not apply to existing activities carried out or approved by the Department of Defense that were conducted prior to the effective date of this designation ([EFFECTIVE DATE OF FINAL RULE]), as specifically identified in section 4.9 or appendix I to the final environmental impact statement for Chumash Heritage National Marine Sanctuary (for availability, see *https://sanctuaries.noaa.gov/chumash-heritage/*). New activities may be exempted from the prohibitions in paragraphs (a)(2) through (7) and (9) and (10) of this section by the Director after consultation between the Director and the Department of Defense. All Department of Defense activities must be carried out in a manner that avoids to the maximum extent practicable any adverse impacts on Sanctuary resources and qualities.

(2) In the event of threatened or actual destruction of, loss of, or injury to a Sanctuary resource or quality resulting from an untoward incident, including but not limited to spills and groundings caused by the Department of Defense, the Department of Defense shall promptly coordinate with the Director for the purpose of taking appropriate actions to respond to and mitigate the harm and, if practicable, restore or replace the Sanctuary resource or quality.

(d) The prohibitions in paragraphs (a)(2) through (9) of this section do not apply to any activity conducted under and in accordance with the scope, purpose, terms, and conditions of a National Marine Sanctuary general permit issued pursuant to subpart D of this part and § 922.233, or a special use permit issued pursuant to subpart D of this part.

(e) The prohibitions in paragraphs (a)(2) through (9) of this section, and paragraph (a)(10) of this section regarding any introduced species of shellfish that NOAA and the State of California have determined is non-invasive and will not cause significant adverse effects to Sanctuary resources or qualities, and that is cultivated in State waters as part of commercial shellfish aquaculture activities, do not apply to any activity authorized by any lease, permit, license, approval, or other authorization issued after the effective date of Sanctuary designation ([EFFECTIVE DATE OF FINAL RULE]) and issued by any Federal, State, or local authority of competent jurisdiction, provided that the applicant complies with § 922.36, the Director notifies the applicant and authorizing agency that the Director does not object to issuance of the authorization, and the applicant complies with any terms and conditions the Director deems necessary to protect Sanctuary resources and qualities. Amendments, renewals, and extensions of authorizations in existence on the effective date of designation constitute authorizations issued after the effective date of Sanctuary designation.

(f)(1) Notwithstanding paragraphs (d) and (e) of this section, in no event may the Director issue a National Marine Sanctuary general permit under subpart D of this part and § 922.233, or an ONMS authorization or special use permit under subpart D of this part authorizing, or otherwise approve:

(i) The exploration for, development, or production of oil, gas, or minerals within the Sanctuary;

(ii) The discharge of untreated or primary-treated sewage within the Sanctuary (except by certification, pursuant to §§ 922.10 and 922.234, of valid authorizations in existence prior to the effective date of designation ([EFFECTIVE DATE OF FINAL RULE]) and issued by other authorities of competent jurisdiction); or

(iii) The disposal of dredged material within the Sanctuary other than at sites authorized by the U.S. Environmental Protection Agency prior to the effective date of designation ([EFFECTIVE DATE OF FINAL RULE]). For the purposes of this subpart, the disposal of dredged material does not include the beneficial use of dredged material, as defined at § 922.231, related to dredging activity at Port San Luis.

(2) Any purported authorizations issued by other authorities within the Sanctuary shall be invalid.

(g) A person may conduct an activity prohibited by paragraphs (a)(2) through (10) of this section within the Sanctuary