

Black Lake Ecological Area Habitat Restoration Project
National Coastal Wetlands Conservation Grant Application
Submitted by the California State Coastal Conservancy

June 26, 2020



PROJECT SUMMARY

The California State Coastal Conservancy (SCC) is requesting \$584,909 from the National Coastal Wetlands Conservation Grant Program (NCWC) to restore 45 acres of coastal wetlands and adjacent uplands within the 160-acre Black Lake Canyon Ecological Area (BLEA), located near the community of Nipomo, in southern San Luis Obispo County, California. The project goal is to restore several different habitat types that function collectively as a dynamic, coastal dune ecosystem to benefit and aid in the recovery of sensitive, endemic and federal and state listed species. Implementation of this project will restore and enhance the following communities:

- 6.94 acres of freshwater pond (Black Lake);
- 4.78 acres of freshwater emergent wetland (marsh);
- 12.24 acres of freshwater forested/shrub wetland (riparian woodland/scrub); and
- 21.04 acres of coastal dune scrub.

The wetland and upland habitats within the BLEA are in urgent need of restoration due to the compounding effects of increased regional groundwater pumping, decreased subsurface recharge, increased sedimentation, and rapid proliferation of several non-native, invasive species. Without implementation of the proposed restoration efforts, conditions within the site will continue to decline and reach a point where the trajectory can no longer be arrested and reversed. Invasive species are quickly decimating most of the remaining stands of coastal dune scrub and overgrown hydrophytes will eventually overtake the wetlands, further increasing infill from sedimentation. This project will directly benefit several listed and sensitive species including: California red-legged frog (*Rana draytonii*), western pond turtle (*Actinemys marmorata*), La Graciosa thistle (*Cirsium scariosum* var. *loncholepis*), marsh sandwort (*Arenaria paludicola*), Nipomo lupine (*Lupinus nipomensis*), legless lizard (*Anniella pulchra*), coast horned lizard (*Phrynosoma blainvillii*), and monarch butterfly (*Danaus plexippus*).

This project will remove built-up sediments and overgrown tule/bulrush (*Bolboshoenus* spp. and *Schoenoplectus* spp.), cattail (*Typha* spp.), and poison hemlock (*Conium maculatum*) within and around the lake and marsh. Restoration efforts associated with these wetland features includes outplanting of marsh sandwort and La Graciosa thistle, which once occurred onsite but has become extirpated. These activities also include installation of habitat features and other elements to increase western pond turtle and California red-legged frog basking, breeding, rearing, and aquatic dispersal habitat. The proposed upland restoration efforts include removal of invasive veldt grass (*Ehrharta calycina*), Saharan mustard (*Brassica tournefortii*), hedgerow eucalyptus (*Eucalyptus globulus*), and Italian thistle (*Carduus pycnocephalus*) to rehabilitate the native coastal dune scrub habitat. This work will benefit the resident overwintering monarch population, coast horned lizards, and legless lizards. Coastal dune scrub restoration accomplished by the project will also create habitat to expand the successful Nipomo lupine re-introduction program within BLEA. This project will result in a highly functioning and resilient dune ecosystem that are critical to supporting this unique assemblage of rare and listed species in the face of climate change and surrounding future development.

PROJECT STATEMENT

Background: Black Lake Canyon Ecological Area (BLEA) was selected as one of six funded Dune Protected Areas (DPA) by the Dunes Collaborative. The Dunes Collaborative is a partnership between federal, state, private, and non-profit organizations committed to restoration of the entire 20,000-acre Guadalupe-Nipomo Dunes Complex (GNDC). A variety of sensitive vegetation types occur in BLEA, including: active coastal dunes; central foredunes; central dune scrub; Central Coast arroyo willow riparian; and coastal freshwater marsh communities (Figures 3, 6-14). BLEA supports a large migratory colony of western monarch butterfly and provides important roosting habitat for a variety of raptors and bats. Several special status species documented within BLEA include the following:

- federal threatened and state species of special concern: California red-legged frog;
- federal and state endangered species: marsh sandwort and Nipomo lupine;
- federal endangered and state threatened: La Graciosa thistle; and
- state species of special concern: western pond turtle and legless lizard.

For more information see Criteria 5 – “Conservation of threatened and endangered species”.

Project Location: GNDC is an 18-mile long coastal dune system located along California’s Central Coast. It is one of the largest coastal dune landscapes on the west coast of North America and provides important habitat for a variety wildlife species. In 1974, GNDC was designated a National Natural Landmark in recognition of its unique natural heritage (USFWS 2016). BLEA is a 160-acre property within the GNDC that is owned and managed by the Land Conservancy of San Luis Obispo County (LCSLO). The project is located in the eastern half of the property; west of State Route 1, near the community of Nipomo, in southern San Luis Obispo County (Figures 1-2; Latitude 35.057689, Longitude –120.603411). The sole purpose of the BLEA is to preserve its unique habitats and protect the rare and special status species that utilize it. It is named for the perennial, freshwater terminal lake onsite that is fed by flows from the lush, incised Black Lake Canyon drainage system. Water brought down through Black Lake Canyon provides important breeding and watering sites for many vertebrate species. It is one of the few migratory corridors that connects the GNDC with other adjacent wildlands.

Project Need: BLEA is one of the most important conservation areas within the GNDC as Black Lake is one of the few remaining freshwater coastal dune lakes in the state that has perennial water. All of the wetland features throughout GNDC, including Black Lake, are under stress from a lowering groundwater table and the future effects of climate change. Groundwater pumping has increased substantially over the last decade due to expanding agriculture and extensive suburban and residential development. As a result, subsurface recharge has decreased and surface flows have increased, causing increased sedimentation, biostimulation, and overgrowth of denser hydrophytic vegetation. Simultaneously, one of the most pervasive threats throughout the dunes are impacts from non-native invasive species. Regional infestation and the rapid proliferation of invasive plant species, such as veldt grass, are causing a type conversion of coastal dune scrub habitats to non-

native monocultures that are prematurely stabilizing this once dynamic and active dune system. This dynamic wind activity is also responsible for excavation, scour and other movements necessary to maintain aquatic features. Premature stabilization of the dunes disrupts the natural dune ecosystem functions and geomorphic processes, resulting in a cascade of detrimental effects across the landscape. Implementation of this project will benefit several listed species and will enable LCSLO to better manage BLEA. Without restoration and management, the suite of rare species associated with the site will continue to decline. These funds will allow the organization to accomplish the totality of the proposed restoration and approved by the Dunes Collaborative.

Objectives:

1. Enhance 5.34 acres and restore 1 acre of coastal wetlands by removing bulrush and cattail, and diversifying wetland vegetation and habitat types;
2. Enhance 17.02 acres of freshwater emergent and forested/shrub wetlands, including one acre of La Graciosa thistle habitat;
3. Re-contour 0.36 acres of coastal freshwater marsh to create marsh sandwort habitat;
4. Outplant 250 La Graciosa thistle seedlings and 350 marsh sandwort plants;
5. Remove up to 1.5 acres of dying, hedgerow eucalyptus to restore coastal dune scrub habitat;
6. Restore 13 acres of coastal dune scrub habitat adjacent to the established monarch overwintering grove;
7. Eliminate invasive Saharan mustard, veldt grass, and poison hemlock within the project area;
8. Create habitat features (such as basking/nesting sites) for California red-legged frog and western pond turtle; and
9. Host two docent-led hikes per year and lead four volunteer events to remove invasive plants and conduct an in-depth survey of the flora and fauna of BLEA.

Expected Results: As a direct result of this project, 6.94 acres of coastal freshwater pond, 17.02 acres of palustrine emergent and forested shrub wetland, and 21.04 acres of upland transition and coastal dune scrub habitat will be restored and enhanced. This project will reestablish the area's natural hydrologic functions by restoring the capacity of the pond and surrounding wetlands. These restoration activities will additionally provide habitat for several rare, sensitive, and listed species. The project will restore and enhance dispersal, foraging, and potential breeding habitat for the California red-legged frog. Approximately two acres of freshwater wetlands will be used to reestablish the endangered La Graciosa thistle and marsh sandwort at BLEA. The upland coastal dune scrub habitats and the species that depend on them, including habitat for monarch butterflies, will also be restored by removing non-native, invasive plants and revegetating the site with native coastal dune scrub plants. This project will benefit both the native resident and transient species that occur within the 22,000-acre GNDC by providing a source of perennial water and upland refugia for both marsh-dependent species, and upland species. The public will learn about the importance of coastal wetland and watershed functions through community outreach and annual docent-led hikes for the public. Please refer to the Ranking Criteria # 1, 5, 6, and 7 for a complete

list of benefited species and recovery plan recommendations.

Approach: The selected restoration and enhancement activities are identified in the 2018 Dune Protected Areas Network Work Plan. The work plan was developed by the Dunes Collaborative which is comprised of the U.S. Fish and Wildlife Service (USFWS), LCSLO, Guadalupe Nipomo Dunes Center, CA State Parks Ocean Dunes State Vehicular Area, County of California, SCC, and CDFW. The plan was vetted and approved by the Dunes Collaborative Restoration Task Force and over 30 subject-matter experts.

Sub-recipient: LCSLO is a sub-recipient of the award, and is the owner of the property. LCSLO has over 35 years of experience successfully implementing wetland enhancement projects on the California Central Coast. The organization acquired BLEA from the Nature Conservancy in 2000, who purchased it for its unique conservation value and distinct natural history. Since then, LCSLO has worked to restore BLEA, manage invasive weeds, and conduct strategic plantings of native species on-site. In addition, LCSLO has been a valuable conservation partner with the Ventura Fish and Wildlife Office (VFWO) on many restoration projects, species' recovery teams, and other strategic conservation programs. LCSLO and VFWO have worked collaboratively at BLEA since 2013 to restore areas of coastal dune scrub habitat and repatriate Nipomo lupine onsite. This work has resulted in an established and viable colony of this critically endangered species on the property.

Jonathan Hall, Stewardship Director of LCSLO, will provide project oversight. He has successfully implemented coastal wetland restoration projects on the California Central Coast for the last 20 years. He is an expert in invasive species ecology and invasive species control in sensitive habitats. He is a Pest Control Advisor (PCA #073792) and holds a Qualified Applicator License (#115922). Lindsey Roddick, Senior Restoration Ecologist of LCSLO, will serve as the project manager. She is a trained botanist specializing in rare plant species' ecology and has overseen the restoration activities of LCSLO since 2016. She is a member of the Nipomo lupine and La Graciosa thistle species' recovery teams. Scott Couture, Field Manager of LCSLO will assist in project management and implementation. He has overseen implementation of restoration activities of LCSLO properties for seven years and holds a Qualified Applicator License (#144838). The restoration activities will be conducted with coordination from VFWO to ensure compliance with the various permits and authorizations.

Black Lake Vegetation Management and Enhancement: LCSLO will secure an excavating contractor to remove sediment and vegetation from up to one acre of marsh and to re-contour the slopes and depressions to at least 5 feet deep. This depth will allow for additional open water habitat without the threat of bulrush regrowth. Large, dense stands of vegetation will be removed from additional portions of the lake with an aquatically approved herbicide or mechanical means (removal methods will be case specific). Adjacent upland areas with poison hemlock and iceplant

(*Carpobrotus* spp. and *Conicosia pugioniformis*) will be treated with an appropriate herbicide. Open, sandy banks will be created to provide turtle basking zones and general wildlife access to the lake. Other habitat enhancement features, such as downed logs or rocks for western pond turtle basking and California red-legged frog refugia, will also be installed during this phase of the project. As needed throughout implementation of the project, LCSLO will treat the existing stands of tule/bulrush and cattail within the restoration area with an aquatic approved herbicide and remove the dead debris.

Marsh Sandwort Habitat Enhancement and Outplanting: LCSLO contracted an engineering firm to obtain engineering designs and other survey-grade hydrological and topographical information needed for restoration of the freshwater marsh. LCSLO will secure an excavating contractor for the project to remove sediment and vegetation from the marsh, and to re-contour the slopes and depressions to the natural topography. A 25-ft buffer surrounding the planting site will be cleared of large, overgrown hydrophytic vegetation. This buffer will allow for better access and management of the area, and will create space for the established marsh sandwort colonies to expand. Any excavated soils will be repurposed onsite in adjacent, upland areas. LCSLO, in coordination with VFWO and the University of California, Santa Barbara's Cheadle Center for Biodiversity and Ecological Restoration (CCBER), will obtain propagated clones of marsh sandwort from the University of California, Santa Cruz, greenhouse stock, which were originally collected from Black Lake Canyon in the nineties before it became extirpated. Cuttings from the remaining wild Oso Flaco Lake population (California Natural Diversity Database [CNDDDB] Occurrence No. 9) may also be collected and used for the project. Through a USFWS Coastal Program Project, CCBER will propagate and maintain these collections for outplanting, so that at least 350 plugs are installed within the freshwater marsh onsite, post restoration.

La Graciosa Thistle Habitat Enhancement and Outplanting: VFWO will facilitate collection of La Graciosa thistle seed at as many of the existing occurrences as can be collected. VFWO and LCSLO will track the maternal lines of the collections made and record the GPS positions. La Graciosa thistle seeds will be propagated in greenhouse facilities located within the GNDC. LCSLO will install the propagated La Graciosa thistle seedlings at two locations; the historic occurrence of the species at Black Lake (CNDDDB Occurrence No. 16) and the western edge of Black Lake, where additional suitable habitat exists. Planting will be in coordination and with oversight from VFWO. LCSLO will prepare the site for planting by removing vegetation (bulrush/cattail, blackberry, and other nonnatives). Multiple management tools will be implemented to remove vegetation from the area including mechanical removal and chemical treatment. Herbicide treatment will be minimal once the La Graciosa thistle has been planted. LCSLO will record the GPS position of each La Graciosa thistle seedling installed and monitor individuals for successful seed production.

Coastal Dunes Scrub Habitat Enhancement: Adjacent to Black Lake is a circle of eucalyptus trees

where an old homestead once resided. No buildings exist today, but the eucalyptus ring creates a physical barrier to the surrounding coastal dune scrub. The northwest portion of the eucalyptus ring supports a large western monarch overwintering population (largest counted in 2013 with 12,073; most recent count in 2019 of 741) (Xerces Society 2019). Monarchs utilize the surrounding coastal dune scrub for nectary sources to sustain their spring migration. LCSLO will contract a tree service to remove selected eucalyptus trees from the southeastern border of the eucalyptus circle, originally planted as a hedgerow. Eucalyptus trees will be selected after wind sensors have been installed and it has been determined that removal will not adversely affect the overwintering monarch population. Removal of physical and genetic barriers will restore habitat connectivity of this area with the adjacent coastal dune scrub habitat and allow native plant species to disperse and populate near the established overwintering site. LCSLO will restore coastal dune scrub habitat and enhance the monarch overwintering habitat within the opened eucalyptus circle by establishing additional flowering coastal dune scrub plants to serve as nectar sources for the monarchs. LCSLO will collect, clean and store native flowering plants from neighboring sites. All habitat enhancements will be overseen by VFWO, local monarch experts of Monarch Alert, and Dr. Francis Villablanca of California Polytechnic State University, San Luis Obispo.

LCSLO will manage the site for invasive species; invasive species of concern include Saharan mustard and perennial veldt grass, but additional nonnative species threats will be managed as needed. LCSLO will organize an annual volunteer event in late spring to hand pull the remaining Saharan mustard population. Veldt grass is one of the most dominant invasive species within GNDC and is primarily spread by wind-borne seed (Cal-IPC 2020). In recent years, land managers throughout the complex have been controlling and arresting the spread of veldt grass. LCSLO began aggressively managing veldt grass at BLEA in 2019. Fifteen acres has already been removed within the eucalyptus ring. Controlling the spread of veldt grass was needed prior to removing eucalyptus trees, in order to prevent seed spread and veldt grass re-establishment. For more information please see Criteria 12 – “Other Factors”.

Integrated Pest Management: LCSLO’s top priority is to protect and enhance native habitats and the species within them. In order to implement the safest and most efficient techniques for invasive species control, LCSLO has adopted an integrated pest management approach. Each project component is reviewed and the appropriate management tools are executed to reach the desired outcome. To ensure projects are implemented correctly, LCSLO holds it’s own pesticide business license through the California Department of Pesticide Regulation and licensed staff manage restoration projects with the utmost care and oversight. All chemical invasive weed management actions will be conducted in accordance with the herbicide label specifications and any other measures, terms, and conditions of the regulatory permits obtained for the project. This includes direct oversight and collaboration with VFWO. Water quality testing to detect concentrations of herbicide remaining in the water will be collected and reported to the Regional Water Quality Control Board, in accordance with LCSLO’s Aquatic Pesticide Application Plan.

Current and Long-Term Management: The restoration benefits will be maintained in perpetuity by LCSLO, the property owner and subrecipient of the grant, as part of the long-term management goals set in LCSLO's Strategic Plan (Goal 2, Strategy 2.2) and the Dune Protected Areas Work Plan (LCSLO 2018). Periodic, long-term management will be necessary to preserve the ecosystem services provided through this project. LCSLO is prepared to take on the long-term maintenance of this site through periodic vegetation management and long-term restoration planning. Large-scale management of this kind has never been necessary at Black Lake until recently, and is an emerging issue due to increased biostimulation, sedimentation, and changing hydrology in the region. Subsequent sediment removal, re-contouring, or other large-scale wetland vegetation management at BLEA are not expected within 20 years after completion of this project. Smaller scale vegetation management and weed control will likely continue to occur outside of the project boundary.

Small-scale vegetation management will be necessary annually and will be funded by LCSLO stewardship budget for the entirety of BLEA. The stewardship budget is in part supported by an endowment for restoration activities at BLEA, because the site was selected as a funded DPA by the Dunes Collaborative. This endowment has been preserved to maintain selected DPAs in perpetuity and is anticipated to contribute in the range of \$30,000 in management funds each year for BLEA. In addition, general LCSLO operational funds are annually allocated toward management of BLEA. LCSLO also intends to pursue additional grant funding for other wetland and habitat restoration/enhancement projects throughout the adjacent Black Lake Canyon corridor, providing long-term management and improved hydrologic flow throughout the system. For more information please see Criteria 3 – "Long-term conservation".

Readiness/Timeline: LCSLO and local partners will prepare final restoration designs, complete review under the California Environmental Quality Act (CEQA) and National Environmental Protection Act (NEPA), and secure all required local, state, and federal permits to construct the project. The final design and permit phase will begin in June 2020, and is anticipated to be completed by June 2021, with the construction to follow beginning in the July 2021, and concluding by the end of 2025. If NCWC funds are awarded, they will be subgranted to LCSLO by June 2021.

Compliance: Preliminary planning and regulatory permitting for this project will be conducted with funds from California Department of Fish and Wildlife's (CDFW) Office of Spill Prevention and Response (OSPR). A 1600 Lake and Streambed Alteration Agreement from CDFW is likely required. A Coastal Development Permit Waiver will be facilitated by the San Luis Obispo County Planning and Building Department to comply with the Local Coastal Plan. LCSLO will prepare the regulatory permit application(s) and obtain these necessary authorizations. The VFWO will conduct an internal consultation pursuant to Section 7 of the Federal Endangered Species Act and

facilitate acquisition of any other permits required for the project. This may include a 2081 or Letter of Concurrence from CDFW and cultural resource clearance pursuant to Section 106 of the National Historic Preservation Act. VFWO will prepare the associated Finding of No Significant Impact or Environmental Assessment, pursuant to the National Environmental Policy Act. VFWO will coordinate throughout permitting process, so that all project activities are covered prior to implementation.

State Trust Fund: SCC requests eligibility for a 75 percent federal share as the State of California has established trust funds for conservation of natural areas, including coastal wetlands. The primary California trust fund for these purposes was established in 1990, when California voters approved Proposition 117, the Mountain Lion Initiative. This initiative mandated the State to create the Habitat Conservation Fund (HCF) and to annually appropriate thirty million dollars to the account for use by SCC, CDFW, and other specified agencies. HCF funds are generated by both the State’s General Fund and designated cigarette tax monies. The State also has the income tax check-off for wildlife habitat and 7 the Environmental License Plate Program, which provide for voluntary contribution to habitat conservation efforts by State Agencies.

Relationship to Other Projects and/or Other Federal Grants: A complex-wide effort to protect and restore important areas exists through the Dunes Collaborative partnership. LCSLO is heavily involved this partnership and has directly contributed to restoration enhancements throughout the complex. The table below outlines the current related LCSLO projects:

Table. Other projects within GNDC		
Location	Main Objectives	Funding Source
BLEA	Marsh restoration and Marsh sandwort outplanting	OSPR (State)
BLEA	Coastal scrub enhancement and species status species protection	Dunes Collaborative (State)
BLEA	Nipomo lupine outplanting and species research	Section 6 (LCSLO is a subrecipient and partner)(State)
Guadalupe-Nipomo Dunes National Wildlife Refuge (GNDNWR)	La Graciosa thistle outplanting and habitat enhancement	USFWS Coastal Program (Federal); OSPR (State)
GNDNWR	Foredune, coastal wetland restoration	Dunes Collaborative (State)
Phillips 66	Nipomo lupine habitat restoration and species research	Dunes Collaborative (State)

Public Involvement and Interagency Coordination: The project activities are identified in the 2018 Dune Protected Areas Network Work Plan. The work plan was developed by the Dunes Collaborative which was vetted and approved by the Dunes Collaborative Restoration Task Force and over 30 subject-matter experts. For more information please see Criteria 12 - “Education/outreach program or wildlife-oriented recreation”.

BUDGET AND BUDGET NARRATIVE

The \$584,909 in requested funding from the NCWCGP would fund the wetlands restoration project as well as part of the cost of project management. California Department of Fish and Wildlife’s (CDFW) Office of Spill Prevention and Response (OSPR) is providing match for completion of the final design and permitting work to be completed prior to the restoration construction phase. The total project cost, including the final design, permit phase, and restoration construction phases, is \$930,390. The project cost is being met with the required base match for the NCWC grant, totaling \$345,481 in in-kind and cash match. Additional information on cost categories used in the SF424C follows.

Match and Non-Match Summary	
<i>Federal Participation</i>	
National Coastal Wetlands Conservation (NCWC) Grant Program	\$584,909
USFWS Coastal Program	\$2,500
<i>Non-Federal Match</i>	
State Coastal Conservancy - Habitat Conservation Fund (SCC)	\$73,500
California Department of Fish and Wildlife’s Office of Spill Prevention and Response (OSPR)	\$27,858; \$66,900*
Dunes Collaborative	\$157,103*
California Native Plant Society, San Luis Obispo Chapter (CNPS)	\$8,000
California Central Coast Wildlife Society (CCCWS)	\$3,120
The Land Conservancy of San Luis Obispo County (LCSLO)	\$6,500*
Total Project Costs	\$930,390

*Pre-award match

Administrative and Legal Expenses: Consists of project management costs totaling \$20,037 in staff time for the State Coastal Conservancy (SCC). This expense will be funded by NCWC funds and will cover project management and legal staff time to prepare a staff recommendation and present it to the Conservancy Board for authorization, prepare a grant agreement, process invoices, prepare reports, and assist with project permitting and oversight. Conservancy staff will also be involved in finalizing project designs. Conservancy staff hours are as shown in the table below.

Position (Staff Person)	Hours	Hourly Rate	Fringe Benefit Percentage	Indirect Cost Rate	Total Billable
Conservancy Project Development Analyst II (Hilary Walecka)	130	47.46	53.91%	50.82%	\$14,143
Attorney I (Kim Kriozere)	24	71.27	53.91%	50.82%	\$3,921
Public Lands Manager (Trish Chapman)	12	71.71	53.91%	50.82%	\$1,973
Total					\$20,037

Architectural and Engineering Fees: Architectural and engineering costs total \$60,400. These costs are for conceptual and final design and permitting for the project, including an environmental review under the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA). These costs will be paid for with OSPR funds and will be utilized to pay fees for an engineering consultant to prepare final designs and for permitting. These costs are expected to be incurred after the proposal is submitted but before the award is made. This is a cash match contribution.

Construction: Construction costs total \$843,453 as detailed below. Funding for construction costs will come primarily from NCWC funds. NCWC funds for construction will be a contractual expense through a subgrant agreement between SCC and the Land Conservancy of San Luis Obispo County (LCSLO).

Major Implementation Tasks, Budget, and Timeline			
Activity	Cost	Funding Source	Completion Date
<i>Planning and permitting</i>	\$60,400* \$6,500*	OSPR LCSLO**	Fall 2020
<i>Construction</i>			
Black Lake Vegetation Management and Enhancement: vegetation management, enhance hydrological functions, and decrease biostimulation	\$136,761 \$73,500 \$500 \$2,000	NCWC SCC CNPS CCCWS	Fall 2022
Marsh sandwort Habitat Enhancement: vegetation management, recontouring, sediment removal, planting, and monitoring	\$47,515 \$27,858 \$2,500	NCWC OSPR USFWS Coastal Program	Winter 2023
La Graciosa thistle Habitat Enhancement: vegetation management, planting, and monitoring	\$32,338	NCWC	Winter 2023
Coastal dune scrub Habitat Enhancement: invasive species management, seed collection, habitat enhancement, monitoring	\$354,758 \$157,103* \$7,500 \$1,120	NCWC Dunes Collaborative CNPS** CCCWS**	Winter 2023
<i>Construction subtotal</i>	\$843,453		
<i>Project Management</i>	\$20,037	NCWC	
Total Project Cost	\$930,390		

*Pre-award match, **In-kind match

Detailed Construction Budget:

ITEM NO.	ITEM	ESTIMATED QUANTITY	UNIT	UNIT COST	TOTAL
Black Lake Vegetation Management and Enhancement					
1	Earth Moving and Sediment Removal	1	CE	\$178,000	\$178,000
2	Vegetation Management	1	LS	\$30,431	\$30,431
3	Construction Management and Monitoring	1	LS	\$4,330	\$4,330
Marsh Sandwort Habitat Enhancement and Outplanting					
4	Earth Moving and Sediment Removal	1	CE	\$21,600	\$21,600
5	Vegetation Management	1	LS	\$15,634	\$15,634
6	Greenhouse Propagation	1	CE	\$2,500	\$2,500
7	Outplanting and Monitoring	1	LS	\$34,358	\$34,358
8	Construction Management and Monitoring	1	LS	\$3,782	\$3,782
La Graciosa Thistle Habitat Enhancement and Outplanting					
9	Vegetation Management	1	LS	\$19,772	\$19,772
10	Greenhouse Propagation	1	CE	\$5,000	\$5,000
11	Outplanting and Monitoring	1	LS	\$7,565	\$7,565
Coastal Dunes Scrub Habitat Enhancement					
12	Invasive Species Management	1	LS	\$210,663	\$210,663
13	Habitat Enhancements	1	LS	\$33,599	\$33,599
14	Tree Work/ Removal	1	CE	\$260,000	\$260,000
15	Construction Management and Monitoring	1	LS	\$15,099	\$15,099
16	Species Inventory Monitoring	1	LS	\$1,120	\$1,120
				TOTAL	\$843,453

Pre-award Cash Match: Pre-award cash match totals \$224,003; \$217,503 is cash match and \$6,500 is in-kind match. The Dunes Collaborative has contributed \$157,103 towards veldt grass removal at BLEA over the last two years. The spread of veldt grass needed to be controlled **prior to coastal dune scrub and monarch restoration** in order to prevent seed spread throughout BLEA as veldt grass is one of the most dominant invasive species within Guadalupe-Nipomo Dunes Complex (GNDC). It is primarily spread by wind-borne seed and in recent years, land managers throughout the complex have started aggressively controlling veldt grass (Cal-IPC 2020). California Department of Fish and Wildlife’s (CDFW) Office of Spill Prevention and Response (OSPR) is providing \$60,400 in pre-award cash match for final design and permitting work which will be completed prior to the restoration construction phase. LCSLO will provide \$6,500 in in-kind, pre-award match to help complete the final design and permitting work.

In-Kind Match: In-kind match for the project totals \$15,120. LCSLO will provide \$6,500 in

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volunteer labor for project design and management. California Native Plant Society, San Luis Obispo, a local nonprofit, are contributing a total of \$7,500 to plan and implement one public volunteer event for three years to manage invasive plant species and collect native seed. Each volunteer event will provide 125 volunteer hours at \$20 per hour. California Central Coast Wildlife Society is contributing volunteer professional services in the amount of \$1,120 to conduct a one-day bio blitz of the site to provide an updated inventory of wildlife species utilizing the site. The bio-blitz will be conducted by four experts over one day.

Required Indirect Cost Statement: We are a U.S. state government entity receiving less than \$35 million in direct Federal funding annually with an indirect cost rate of 50.82%. We are required to prepare and retain for audit an indirect cost rate proposal and related documentation to support those costs. SCC anticipates charging indirect costs on SCC staff time for the grant. These costs are included in the \$20,037 in staff time described above, as seen in the staff time table. SCC's Negotiated Indirect Cost Agreement is attached to this proposal.

Single Audit Reporting Statement: The California State Coastal Conservancy's required Single Audit Reporting Statement is on file with WSFR. In addition, a current Assurances form (SF 424D) is on file with our regional WSFR office.

Conflict of Interest: There are no conflicts of interest to disclose in association with this project.

Overlap/Duplication Statement: There is no overlap or duplication between this application and any of our other Federal applications or funded projects in regard to activities, costs, or time commitment of key personnel.

Allocation of Costs: Overall project implementation costs are charged to funding sources in keeping with identified project components in submitted grant proposals and grant agreements. Indirect costs are charged on direct costs allocated to specific funding sources.

RANKING CRITERIA

1. Wetlands conservation.

Table. Acreage enhanced/restored by the project.		
Habitat Type	Number of acres	Percentage of total project area
<i>Total Project Area</i>	45	100%
<i>Total declining coastal wetlands</i>	23.96	53.2%
Freshwater emergent wetlands (PEM1C)	4.78	10.6%
Freshwater forested/shrub wetlands (PSS1C)	12.24	27.2%
Coastal dune freshwater pond (PUBH)	6.94	15.4%
<i>Total stable coastal wetlands</i>	0	0%
<i>Total Upland</i>	21.04	46.8%

The US Fish and Wildlife Service has described the GNDC as, “the most unique and fragile ecosystem in the State of California” (USFWS 2000). The coastal freshwater habitats found in the GNDC are extremely unique and not found in other dune systems along the California Coast. BLEA is home to intact coastal freshwater marsh habitat, as well as other rare habitats such as active coastal dunes, central foredunes, central dune scrub, Central Coast arroyo willow riparian communities. BLEA was previously owned by the adjacent Dune Lakes Ltd. before being purchased and transferred to LCSLO. Before transferring the property, Dune Lakes Ltd. actively managed the hydrology in Black Lake for flood control, agricultural irrigation, and to maintain flow levels for waterfowl (2 LCSLO 2018). Groundwater pumping has increased substantially over the last decade due to expanding residential development and surrounding agriculture (1 LCSLO 2018). As a result, subsurface recharge has decreased and surface flows have increased, causing increased sedimentation, biostimulation, and overgrowth of denser, hydrophytic vegetation. Without some vegetation management, the coastal freshwater emergent wetland immediately east of the lake will be completely taken over by tule/bulrush to the point where it will likely no longer pond water and will constrict surface flows into the lake. Recontouring the freshwater marsh and removing vegetation throughout the freshwater wetland will retain water capacity and surface flow, and prevent from type conversion to upland. This project will restore the area to 17.02 acres of freshwater emergent and forested/shrub wetlands.

Black Lake is classified as a freshwater pond on the National Wetlands Inventory Mapper, but is unique from most California ponds in that it is landlocked by sand dunes less than one mile from the ocean (USFWS 2020). Black Lake is part of Dune Lakes, a system of eleven coastal dune

freshwater ponds that are located very close to the Pacific Ocean, where the groundwater table is perched and provides for the ponding of water. Due to agricultural and urban development, recreation, and stabilization from non-native species, California's coastal dunes systems have been severely impacted and reduced to isolated areas throughout the coast (Pickart 1988). The decline of California's coastal dunes has subsequently reduced the number of coastal dune freshwater ponds. The Dune Lakes and freshwater ponds of GNDC are the only places on California's Central Coast that have naturally occurring coastal dune freshwater ponds (USFWS 2020). The rarity of this habitat makes it imperative to protect and restore; not only is a coastal dune freshwater pond a regionally decreasing wetland type, it is the only location on the West Coast with this density of coastal dune freshwater ponds.

Recently, the lakes within Dune Lakes are drying and hold perennial water less frequently (Kofron 2019). Black Lake is the deepest of the Dune Lakes, receiving water from both groundwater recharge and surface flow from Black Lake Canyon (1 LCSLO 2018; Kofron 2019). From 2012 to 2016, California was in a severe state of drought from 2012 to 2016 and in 2017, although Governor Jerry Brown announced that the California drought was over, the drought restrictions remained for the Nipomo Mesa (Lund et al. 2018; Nipomo Community Services District 2017; Leslie 2017). Nipomo's water supply is mainly filled by groundwater aquifers, and although rivers and reservoirs were re-charged at the end of California's most recent drought, groundwater aquifers take years or decades to refill (Nipomo Community Services District 2017; Lund et al. 2018). The year-to-year precipitation in California has been variable since 1980, causing uncertainty with how precipitation will vary into the future (OEHHA 2019). As groundwater resources become more uncertain, protecting the hydrology of Black Lake is crucial to keeping a source of perennial freshwater in the region. Vegetation management will prevent the coastal freshwater pond from being taken over by tule and bulrush, resulting in increased water retention and valuable, open-water habitat. This project will protect the habitat at Black Lake by restoring 6.94 acres of the coastal dune freshwater pond.

Long-term management of groundwater resources is a complex and multi-faceted issue that is being addressed systematically by the state, with implementation and regional planning from the County and at smaller, more localized scales. We expect groundwater pumping issues to persist into the foreseeable future. Fortunately, the portion of the groundwater table beneath Black Lake is relatively close to the surface, which makes it a reliable and consistent, perennial water source. Therefore, the overarching purpose of the project scope is to maximize the hydrological function within the system to achieve the most efficient use of surface water outputs and groundwater recharge. Overgrown hydrophytic vegetation and sediments trap water and disrupt recharge, and this is one of the aspects that the project is designed to remove and subsequently manage.

LCSLO is committed to water resource management and protection in the region through the conservation of land. LCSLO has conserved 2,060 acres of property in Black Lake Canyon and

over 30,000 acres throughout San Luis Obispo County (Figure 5). The protection of these lands means long-term protection of the groundwater resources below. With the threat from expanding agriculture and greenhouse properties in the area, LCSLO's acquisition of lands for conservation purposes limits the groundwater extraction and offer important wildlife wetland resources. LCSLO considers Black Lake and the surrounding area to be a priority land conservation area and will continue to focus conservation efforts in the region.

2. **Maritime forests on coastal barriers.** Not Applicable.
3. **Long-term conservation.** LCSLO purchased BLEA from the Nature Conservancy with the specific intent of preserving and protecting the unique set of habitats found within the Guadalupe Nipomo Dunes. BLEA offers an unparalleled opportunity to protect both coastal wetlands and dwindling coastal dune scrub while safeguarding important wildlife corridors. The property's management priorities have always been determined on how it will benefit the coastal dune ecosystem and the species found within it. LCSLO has worked diligently for the last 20 years to enhance the coastal dune scrub habitat surrounding Black Lake and it is now a regional example of how successful coastal dune restoration can be maintained.

The coastal wetland enhancements selected in this proposal will require minimal maintenance in the next 20 years. BLEA has needed very little management in the last 50 years but with recent increases in sedimentation and biostimulation, and the changes in the regional hydrology, larger scale restoration is necessary to enhance the wetland functions. Project components were selected to ensure that LCSLO's annual management budget can execute their long-term success. Long-term management activities will predominately include invasive species control surrounding special status species, and early detection of invasive species threats. LCSLO will continue to apply for regional, state, federal funding to support additional work at BLEA, and throughout Black Lake Canyon. BLEA has also been designated as a Dune Protected Area and a restoration endowment has been put in place for long-term management and maintenance. This restoration endowment has been invested and only the interest can be used annually. Returns will fluctuate year to year, but it is likely BLEA DPA will secure around \$30,000 each year to maintain and manage restoration projects. Based on similar projects LCSLO has implemented regionally, this funding will be sufficient to maintain the habitat improvements created through this funding.

4. **Coastal watershed management.** Black Lake Ecological Area was selected as one of eleven Dune Protected Areas in GNDC because of its high-quality habitat and inclusion of conservation targets. BLEA has specifically been mentioned as a high priority in many regional conservation plans. The below plans are highlighted because they specifically identify the area, have been developed or updated over the past decade, and continue to guide conservation investments, and represent the diversity of conservation targets and habitats that could be protected via this project.

Table. Coastal Watershed Plans and Efforts	
Management Plan/Effort	Project Contribution to Goals
Dune Protected Areas Network 1.0 Restoration Plan (2018)	<p>The project will implement the following listed restoration activities for BLEA:</p> <ul style="list-style-type: none"> • Invasive removal of: narrow leaved iceplant, perennial veldt grass, blue gum eucalyptus, and Saharan mustard • Enhancement of natural dune succession • Non-native tree removal • Active habitat enhancement • Wetland preservation and connectivity – freshwater habitats
Dune Protected Areas Network 1.0 Work Plan (2018)	<p>The project will implement the following Priority 1 Action for BLEA:</p> <ul style="list-style-type: none"> • Perennial veldt grass removal <p>The project will implement the following Priority 2 Actions for BLEA:</p> <ul style="list-style-type: none"> • Saharan mustard containment and control • Narrow leaved iceplant control • Blue gum eucalyptus tree containment and removal • Freshwater habitat enhancement <p>The project will implement the following Priority 3 Actions for BLEA:</p> <ul style="list-style-type: none"> • Dune succession restoration • Active habitat restoration
San Luis Obispo County’s Local Coastal Program (1988)	<p>BLEA is designated an Environmentally Sensitive Habitat Area (ESHA) by San Luis Obispo County. ESHA is a type of Sensitive Resource Area where 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 easily be disturbed or degraded by human activities and development. This project will improve the quality of the designated ESHA.</p>
Recovery Plan for Marsh Sandwort (<i>Arenaria paludicola</i>) and Gambel’s Watercress (<i>Rorippa gambelii</i>)	<p>Actions needed:</p> <ol style="list-style-type: none"> 1. Protect, maintain, and enhance species habitats 2. Monitor and document species populations and habitat characteristics 3. Conduct research on the ecology and biology of the species 4. Increase size of existing populations <p>Objective 15. Enhance existing habitat at Black Lake Canyon</p>

5. **Conservation of threatened and endangered species.** The Central Coast region of California supports a broad range of unique habitat types and many special status species. These communities

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and the species that utilize them are also some of the most threatened because of population growth and urban development, increased pressures from agriculture, recreation and tourism, as well as sea level rise and climate change. Implementation of this project will restore or enhance habitat for 15 special status species. Each of these species are listed in the table below, which includes their regulatory status and a brief description of how the project benefits them and their habitat.

Table. Special Status Species Benefiting From the Project			
Common Name	Scientific Name	Status	Project Benefits
American peregrine falcon	<i>Falco peregrinus anatum</i>	BMC; SWAP*	Restoration of coastal dune scrub and freshwater marsh
Blochman's leafy daisy	<i>Erigeron blochmaniae</i>	CRPR List 1B.2	Coastal dune scrub habitat restoration
California black rail	<i>Laterallus jamaicensis coturniculus</i>	ST/SFP	Freshwater marsh habitat restoration
California red-legged frog	<i>Rana draytonii</i>	FT/SSC	Freshwater marsh and lake (breeding, aquatic and upland) habitat restoration
California sawgrass	<i>Cladium californicum</i>	CRPR List 2B.2	Freshwater marsh habitat restoration
coast horned lizard	<i>Phrynosoma blainvillii</i>	SSC	Coastal dune scrub habitat restoration
coastal goosefoot	<i>Chenopodium littoreum</i>	CRPR List 1B.2	Coastal dune scrub habitat restoration
crisp monardella	<i>Monardella undulata</i> ssp. <i>crispa</i>	CRPR List 1B.2	Coastal dune scrub habitat restoration
dune larkspur	<i>Delphinium parryi</i> ssp. <i>blochmaniae</i>	CRPR List 1B.2	Coastal dune scrub habitat restoration
Golden eagle	<i>Aquila chrysaetos</i>	BMC**;; SWAP*	Restoration of coastal dune scrub and freshwater marsh
La Graciosa thistle	<i>Cirsium scariosum</i> var. <i>loncholepis</i>	FE/ST/CRPR List 1B.1	Freshwater marsh and lake habitat restoration and outplanting
legless lizard	<i>Anniella pulchra</i>	SSC	Coastal dune scrub habitat restoration
marsh sandwort	<i>Arenaria paludicola</i>	FE/SE/CRPR List 1B.1	Freshwater marsh habitat restoration and outplanting
monarch butterfly - overwintering	<i>Danaus plexippus</i>	FR	Coastal dune scrub (nectar sources) and overwintering habitat restoration and management
Nipomo lupine	<i>Lupinus nipomensis</i>	FE/SE/CRPR List 1B.1	Coastal dune scrub habitat restoration and outplanting
San Luis Obispo monardella	<i>Monardella undulata</i> ssp. <i>undulata</i>	CRPR List 1B.2	Coastal dune scrub habitat restoration
southwestern pond turtle	<i>Actinemys pallida</i>	SSC	Freshwater marsh and lake (breeding, aquatic, and upland) habitat restoration
Status Codes: FE - Federally Endangered; FT - Federally Threatened, FR - Undergoing Federal Review; SE - State Endangered, ST - State Threatened; SFP - State Fully Protected; SSC - State Species of Special			

Concern; CRPR List 1B.1 - California Native Plant Society Rare Plant Rank, Plant Rare, Threatened or Endangered in California and elsewhere that is seriously threatened in the State; CRPR List 1B.2 - California Native Plant Society Rare Plant Rank, Plant Rare, Threatened or Endangered in California and elsewhere that is moderately threatened in the State; CRPR List 2B.2 - Plant Rare, Threatened or Endangered in California, but more common elsewhere that is moderately threatened in the State; BMC - Birds of Management Concern under Migratory Bird Treaty Act; BMC** - Birds of Management Concern Focal Species; and SWAP* - State Wildlife Action Plan Species of Greatest Conservation Need.

Federal Threatened and Endangered Species. Implementation of the project will directly benefit four federally listed species and one that is undergoing formal review by the USFWS to determine if protections under the federal Endangered Species Act are warranted. This section describes these federally listed species in greater detail and further explains how they will directly benefit from the project. Additional information about how the project furthers fulfillment of the species' recovery plans, overall recovery, and designated critical habitat is also included in this section.

California Red-legged Frog: This species was listed as threatened by the Service in 1996 (61 FR 25813). The revised critical habitat designation for California red-legged frog was finalized in 2010 (75 FR 12816). **While BLEA does not occur within the critical habitat designation, it still offers important habitat identified in the regional conservation strategy.** The final California red-legged frog recovery plan was approved by the Service in 2002 (USFWS 2002). The species requires both aquatic and upland habitats. It breeds in streams, ponds, marshes, plunge pools and other backwater areas within dune ponds, lagoons and estuaries. The typical breeding season extends November through March. Riparian habitats are important for resting, feeding, dispersal, moisture, and cover. California red-legged frog disperses into upland areas during the wet season and may travel overland distances up to two miles from breeding sites, depending on the habitat types present. Dispersing individuals rely on habitat features such as boulders, interstitial spaces beneath tree roots, unoccupied small mammal burrows, and other soil cracks and crevices for cover. Adults may remain active all year if suitable aquatic habitat is present and will estivate in moist refuges, until the onset of the wet season if such habitat is unavailable.

California red-legged frog faces a high risk of extirpation in the GNDC, where it is well-known to occur. This risk is primarily due to declining aquatic and upland habitat quality, changes in hydrology, and predation from American bullfrog (*Lithobates catesbeianus*). Unlike other coastal stream areas where California red-legged frog occurs throughout San Luis Obispo County, the species has limited ability to move between aquatic sites because of the xeric nature of the surrounding upland habitat. Invasive species, such as veldt grass and overgrown hydrophytic plants, utilize large amounts of the available water and alter the hydrologic function. The stability of populations within occupied sites throughout the GNDC is crucial in order to maintain regional connectivity between other occupied areas along the coast located to both the north and the south.

Several CNDDDB occurrence records for the species are within GNDC and surround BLEA. Element Occurrence No. 744 is located within Black Lake Canyon, approximately 2.88 kilometers (1.8 miles) east of the State Highway 1 crossing. CNDDDB Occurrence No. 496 is located north of BLEA and was recorded within Arroyo Grande Creek. Occurrence No. 936 and 299 are located to the south and were documented in dune ponds within the Oceano Dunes State Vehicular Recreation Area. VFWO recently funded an eDNA study within the Guadalupe-Nipomo Dunes

National Wildlife Refuge that yielded positive results for the species in several of the ponds within this site and staff have randomly encountered the species within the freshwater marsh and lake margins of Black Lake. Local consultants recall seeing approximately 25 individuals within Black Lake Canyon in 2010 and 15 in the same area in 2018. They presume breeding and persistence of the species in the Canyon (Terra Verde Environmental Consulting 2020, pers. com.).

VFWO is working on a draft strategic conservation plan and advisory mitigation guidance for California red-legged frog informed in part, by elicitation from several species experts. This document is intended to be used as a stepped-down tool to achieve the criteria outlined within the species recovery plan for the regionally identified core areas. **Protection of the existing ponds within the GNDC are identified as one of two most crucial actions for conservation and recovery of California red-legged frog in the South Coast Region.** This same document also recommends permanent protection and/or management of aquatic features occupied by California red-legged frog by purchase or establishment of conservation easements and/or funding for maintenance and restoration on such features located near the Nipomo Mesa as a specific conservation priority (USFWS 2018). More generally, implementation of the proposed project contributes to accomplishment of the following delisting criteria identified within the species recovery plan: 1) suitable habitats within all identified core areas protected and/or managed for California red-legged frogs in perpetuity, and the ecological integrity of these areas is not threatened by adverse anthropogenic habitat modification (including indirect effects of upstream/downstream land uses) and 3) populations are geographically distributed in a manner that allows for the continued existence of viable metapopulations despite fluctuations in the status of individual populations (i.e. when populations are stable or increasing at each core area [USFWS 2002]).

La Graciosa Thistle: La Graciosa thistle was federally listed as endangered in 2000 (65 FR 14888). The revised critical habitat designation for the species was finalized in 2009. BLEA is within Unit 1A of the designation (75 FR 12816). The Service is in the process of completing a draft recovery plan for the species, but the draft is not far enough along in the review process to cite. La Graciosa thistle occurs in wetland habitats with sandy soils including: coastal dune wetlands, lakes, marshes, ponds, seeps, and swales. It also occurs along the upper margins and floodplains of intermittent and perennial coastal streams. La Graciosa thistle survives by colonizing patches of newly opened habitat created by physical or biotic disturbance, which typically results from wind-driven dune processes and natural, seasonal fluctuations in hydrology. The species is generally competitively inferior to later successional species, such as willow (*Salix* spp.) and bulrush (*Schoenoplectus* spp., *Bolboschoenus* spp., and *Scirpus microcarpus*). Most of the known occurrences are associated with wetland features scattered throughout the backdunes of the GNDC and a marshy, riverine system along the upper margins and floodplains of the Santa Maria River that marks the southern limits of the GNDC.

There are currently 23 element occurrences of La Graciosa thistle in the CNDDDB. Of these, 16 are likely or confirmed to be extirpated and seven are extant. CNDDDB Occurrence No. 16 is mapped within Black Lake and considered extirpated. The species was reported to occur within Black Lake by the late Robert Hoover in his Vascular Plants of San Luis Obispo County (1970), but has not been observed since despite several survey efforts. **Implementation of this project will repatriate La Graciosa thistle in Black Lake, which is essential to its recovery.** The site is

especially important because it has a perennial source of water. Repatriation of the species within Black Lake is also important for recovery because the site is conserved in perpetuity and has a management endowment.

Marsh Sandwort: Marsh sandwort was federally listed as endangered in 1993 (58 FR 41378). Critical habitat for this species has not yet been designated. A recovery plan was finalized for marsh sandwort in 1998 and was amended to include delisting criteria in 2019 (USFWS 1998 and USFWS 2019). This species requires freshwater marsh habitats along the coast; it has declined drastically throughout its range and is facing extreme risk of extinction. There are 16 element occurrences currently in the CNDDDB. Of these, only two are confirmed to be extant (Occurrence No. 14 and No. 9). The rest of the occurrences are likely or confirmed to be extirpated.

Occurrence No. 14 was established in 2003 at a local preserve in San Luis Obispo County by a joint venture with several partners and VFWO. This population was reduced in size from King Tides that submerged its habitat over the winter of 2018. Competition from other species (common watercress [*Nasturtium officinale*] and water beard grass [*Polypogon viridis*]) and foraging by raccoon (*Procyon lotor*) are also threatening the occurrence. Occurrence No. 9 is a wild population on State Park lands last seen in 2018. Competition from other aquatic species, sedimentation, and changes to the local hydrology are the most imminent threats identified for this population and no management is occurring. In 2011, VFWO worked with partners to outplant marsh sandwort at two national park sites in the Bay Area. One of the sites is considered stable, and partners are working to manage threats and bolster this population. The other was not successful.

Black Lake and the associated canyon to the east of State Highway 1 include five of the CNDDDB occurrences and was the most prolific locality throughout the species historic range. Occurrence No. 4 was mapped directly on Black Lake and is now extirpated. **Therefore, implementation of this project is the first step to strategically repatriate marsh sandwort in Black Lake and throughout the extent of the canyon. Re-establishment of a viable population of the species at this location is paramount to its recovery and has the highest chance of success because the site will be managed in perpetuity.** The main objective for the long-term management and recovery of marsh sandwort is to secure viable, self-sustaining populations of the species in its natural habitat (USFWS 1998, page 30). More specifically, the preliminary criteria for downlisting are: at least five populations of at least 500 individuals and the populations remain viable for at least five years. The species recovery plan specifically mentions Black Lake Canyon as being desirable because at the time of this publication, it supported several occurrences and permanently protected habitats (USFWS 1998, page 30-31). Implementation of this project will explicitly address achievement of the marsh sandwort preliminary downlisting criteria.

Monarch: The USFWS received a petition to list monarch as a threatened species under the Endangered Species Act of 1973, as amended in August 2014. In December 2014, USFWS found the petition presented substantial scientific or commercial information that indicated listing the monarch may be warranted (79 FR 78775). USFWS is currently conducting a full evaluation of the status of the species and the listing decision is due in December 2020.

Monarchs have a global distribution and North America supports two migratory populations; one located east of the Rocky Mountains and another to the west. Migratory individuals located in the

west overwinter primarily along the California coast and into northern Baja California. The location and structure of these sites provide the specific microclimates needed for survival in the western overwintering areas. Suitable overwintering groves consist of mature tree species, including blue gum eucalyptus (*Eucalyptus globulus*), Monterey pine (*Pinus radiata*), Monterey cypress (*Hesperocyparis macrocarpa*) stands, and others. Adult monarchs require a diversity of blooming nectar resources to feed on throughout their migratory pathways and breeding grounds (generally spring, summer and fall). In temperate climates, like western North America, some monarchs breed at the overwintering sites before dispersing for the spring migration.

The western monarch population has declined by about 97 percent since 2010, and it is estimated to be less than one percent of its historic size (Xerces 2020, website). Overwintering grove degradation and loss, breeding/migratory habitat loss, pesticides and climate changes are some of the largest threats identified. **BLEA currently supports an overwintering monarch population at the northwest portion of the eucalyptus ring at BLEA (largest counted in 2013 with 12,073; most recent count in 2019 of 741) (Xerces Society 2019).** However, the site is in need of restoration to ensure persistence of the species at this location. The Xerces Society website lists five key actions that can be implemented immediately to prevent collapse of western monarch migrations throughout its range including: 1) protect and manage overwintering sites; 2) restore breeding and migratory habitat in California; 2) protect monarchs and their habitat from pesticides; 4) protect, manage and restore summer breeding and fall migration habitat outside of California; and 5) answer key research questions about how to best aid western monarch recovery (Xerces 2020, website). Implementation of this project directly achieves objectives one through three.

Nipomo Lupine: This species was listed as endangered by the Service in 2000 (65 FR 14888). Critical habitat for Nipomo lupine has not yet been designated. The Service is in the process of completing a recovery plan for the species and the draft will be available before the end of 2020. Nipomo lupine requires coastal dune scrub habitats with a high diversity of annual forbs and the shrub mock heather (*Ericameria ericoides*) as the primary indicator species. The entire range of this narrow endemic consists of 2.4 square kilometers (1.5 miles) located within the stabilized back dunes west of the Nipomo Mesa, within the GNDC. Almost none of this habitat type remains and most of it has already been converted to residential and urban development and agriculture. Habitat loss from development and non-native, invasive species (predominantly veldt grass) are the primary threats to the species.

There is currently only one known population of Nipomo lupine comprised of several colonies, now divided by convention into three CNDDDB occurrences. Two of the three are extant and located west of State Highway 1. Occurrence No. 1 is the largest colony of the species and occurs on the privately owned 1,780-acre Santa Maria Oil Refinery, actively operated by the Phillips 66 Company. This occurrence is not secure from threats, although we do have some ongoing collaborative research and monitoring projects underway with LCSLO, VFWO, and several other partners. **Occurrence No. 10 is the result of many years of work on the species and is a successful and self-sustaining outplanting within BLEA. It is actively owned and managed by LCSLO for perpetuity.** Occurrence No. 3 is extirpated and considered historic. However, LCSLO owns lands with coastal dune scrub habitat within this location and future outplanting is planned through other funding mechanisms. **Implementation of this project is an will bolster the colonies already established at BLEA (CNDDDB Occurrence No. 10) and introduce the**

species to the newly restored area of coastal dune scrub habitat. It will at least double the size of the resident colony, thus increasing the overall resiliency and redundancy of the population.

6. **Benefits to fish.** The project will restore the aquatic habitat in Black Lake. Through the implementation of this project, 17.02 acres of adjacent freshwater wetland will be restored, reducing the sedimentation and improving the water quality and flow into Black Lake. Threespine stickleback (*Gasterosteus aculeatus*) were once common throughout the lakes in GNDC (Smith 1976). It is likely that many species of fish, including a population of stickleback, persists at Black Lake since it serves as one of the only perennial sources of freshwater in GNDC. Stickleback along with other small fish species provide food for birds of prey known in the area. Black Lake has not been surveyed for fish in recent history; the bioblitz conducted by CCCWS will help to update the inventory of fish species that occur on the property.

7. **Benefits to coastal-dependent or migratory birds.** Water brought down through Black Lake Canyon provides important foraging and roosting sites for many bird species. It is one of the few migratory corridors that connects the GNDC with other adjacent wildlands. The Southern Pacific Shorebird Conservation Plan considers from Pismo Beach south to the Santa Maria River Mouth an area of important wetlands and beaches (Hickey et al. 2003). Goals of this plan include: removing non-native vegetation and restoring native plant communities of coastal dune systems; restoring additional wetlands to support migrating, wintering, and breeding populations; and avoiding further fragmentation and encroachment of wetlands by development. The project helps to accomplish these goals by restoring valuable coastal dune scrub, freshwater pond, and forested-shrub wetland habitat for the state endangered willow flycatcher and other coastal-dependent and migratory birds. Bird species of concern within the Dune Lakes that will benefit from this project are listed in the table below, which includes a brief description of how the project benefits them.

Table. Coastal-dependent and migratory birds observed within the Dune Lakes that will benefit from the project			
Common Name	Scientific Name	Federal, State, or Conservation Plan Status	Project Benefit
Allen’s hummingbird	<i>Selasphorus sasin</i>	BMC; CSC Secondary Species	Coastal dune scrub restoration
American coot	<i>Fulica americana</i>	CCWCP	Enhancement and restoration of wetland features; enhancement of foraging habitat
American peregrine falcon	<i>Falco peregrinus anatum</i>	BMC; SWAP*	Restoration of coastal dune scrub and freshwater marsh
Bewick’s Wren	<i>Thryomanes bewickii</i>	CSC Secondary Species	Enhancement and restoration of forested-shrub wetland
Blue-gray Gnatcatcher	<i>Polioptila caerulea</i>	CSC Secondary Species	Enhancement and restoration of forested-shrub wetland
Blue-winged teal	<i>Spatula discors</i>	BMC; NAWMP	Enhancement and restoration of wetland features; enhancement of foraging habitat
Bufflehead	<i>Bucephala</i>	NAWMP	Enhancement and restoration of

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	<i>albeola</i>		wetland features; enhancement of foraging habitat
California Quail	<i>Callipepla californica</i>	CSC Secondary Species	Coastal dune scrub restoration; enhancement and restoration of forested-shrub wetland
California Thrasher	<i>Toxostoma redivivum</i>	CSC Secondary Species	Coastal dune scrub restoration
Canvasback	<i>Aythya valisineria</i>	BMC; NAWMP	Enhancement and restoration of wetland features; enhancement of foraging habitat
Common Goldeneye	<i>Bucephala clangula</i>	BMC; NAWMP	Enhancement and restoration of wetland features; enhancement of foraging habitat
Common Yellowthroat	<i>Geothlypis trichas</i>	CSC Secondary Species	Enhancement and restoration of wetland features; enhancement of foraging and nesting habitat
Double-crested cormorant	<i>Phalacrocorax auritus</i>	BMC; CCWCP	Restoration of waterfowl habitat and roosting sites.
Golden eagle	<i>Aquila chrysaetos</i>	BMC**; SWAP*	Restoration of coastal dune scrub and freshwater marsh
Great Blue Heron	<i>Ardea herodias</i>	CCWCP	Enhancement of foraging habitat
Green Heron	<i>Butorides virescens</i>	CCWCP	Enhancement and restoration of wetland features; enhancement of foraging habitat
Green-winged teal	<i>Anas crecca</i>	BMC; NAWMP	Enhancement and restoration of wetland features; enhancement of foraging habitat
Mallard	<i>Anas platyrhynchos</i>	BMC; NAWMP	Enhancement and restoration of wetland features; enhancement of foraging habitat
Northern flicker	<i>Colaptes auratus</i>	BMC	Enhancement of foraging habitat; enhancement and restoration of forested-scrub wetland habitat
Northern harrier	<i>Circus hudsonius</i>	SWAP	Enhancement of foraging habitat; coastal dune scrub restoration
Nuttall's woodpecker	<i>Dryobates nuttallii</i>	BMC	Enhancement and restoration of forested-shrub wetland
Ruddy Duck	<i>Oxyura jamaicensis</i>	NAWMP	Enhancement of foraging habitat
Rufous Hummingbird	<i>Selasphorus rufus</i>	BMC	Coastal dune scrub restoration
Spotted Towhee	<i>Pipilo maculatus</i>	CSC Secondary Species	Coastal dune scrub restoration; enhancement and restoration of forested-shrub wetland
Swainson's Hawk	<i>Buteo swainsoni</i>	BMC; SWAP*	Restoration of coastal dune scrub and freshwater marsh
Turkey Vulture	<i>Cathartes aura</i>	CSC Secondary Species	Enhancement and restoration of forested-shrub wetland
Western Scrubjay	<i>Aphelocoma californica</i>	CSC Secondary Species	Coastal dune scrub restoration; enhancement and restoration of

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			forested-shrub wetland
Willow flycatcher	<i>Empidonax traillii</i>	SE	Coastal dune scrub restoration; enhancement and restoration of forested-shrub wetland
Wrentit	<i>Chamaea fasciata</i>	CSC Primary Species	Coastal dune scrub restoration
<p>Conservation Plan Codes: BMC - Birds of Management Concern under Migratory Bird Treaty Act; BMC** - Birds of Management Concern Focal Species; Coastal California (BCR 32) Waterbird Conservation Plan - CCWCP; Coastal Scrub and Chaparral Bird Conservation Plan – CSC; NAWMP - North American Waterfowl Management Plan; SE - State Endangered; SWAP - State Wildlife Action Plan; and SWAP* - State Wildlife Action Plan Species of Greatest Conservation Need.</p>			

USFWS Migratory Bird Program’s Birds of Management Concern and Focal Species: The Birds of Management Concern is a list of species, subspecies, populations, or geographic segments of populations that warrant management or conservation attention, as identified by the U.S. Fish and Wildlife Service (USFWS 2011). Birds of Management Concern Focal Species are identified over the short term to receive specific attention. This project will work towards improving habitat quality for birds of management concern within BLEA.

Coastal California Waterbird (Bird Conservation Region 32) Conservation Plan (2014): The project is located within Coastal California Bird Conservation Region (BCR) 32 of the Waterbird Conservation for the Americas – North American Waterbird Conservation Plan (Kushlan et al. 2002). The Coastal California (BCR 32) Waterbird Conservation Plan addresses conservation issues and threats to waterbirds within the region (Shuford 2014). This project will directly address the following threats to loss of habitat integrity: land use practices that increase siltation accelerating the natural processes of infill and succession; competition for water and climate change and sea level rise; invasive plant species. The project vicinity provides important foraging habitat identified by BCR32 plan, including emergent vegetation and shallow waters.

The Coastal Scrub and Chaparral Bird Conservation Plan (2004): The plan highlights that habitat loss from urban and suburban development has been severe for coastal scrub habitat, due to its proximity to coastal population centers (CalPIF 2004). This project addresses the following Habitat Protection Recommendations from the plan: Objective 1 - Prioritize coastal scrub sites for protection and restoration; Objective 2 - Promote coastal scrub and chaparral ecosystem health (I.e., a self-sustaining, functioning system); and Objective 3 - Design and implement restoration projects that mimic the diversity and structure of natural shrubland plant communities.

North American Waterfowl Management Plan Update (2018): This project will work towards enhancing and restoring habitat for mallards, green-winged teals, goldeneyes, blue-winged teals, canvasback, and buffleheads.

California State Wildlife Action Plan (2015): The SWAP identifies species that would benefit from the conservation strategies for each target within the province (CDFW 2015). Species in the State Wildlife Action Plan that will benefit from this project are Swainson’s hawk, golden eagle, and American peregrine falcon. These species are the focus of the conservation strategies and will benefit from the coastal dune scrub and freshwater marsh restoration completed by this project.

8. **Prevent or Reduce Contamination.** LCSLO acquired BLEA and the conservation easement on the neighboring property, Dune Lakes, to protect the unique and important wetlands (and other unique habitats) in the area (Figure 5). Due to the agricultural development in Black Lake Canyon and the surrounding Nipomo Mesa, wetlands are experiencing increased pressures from a declining water table, as well as increased nutrient loads into the system. Surface runoff likely contains pesticide residue and other contaminants associated with adjacent agriculture and residential developments. In addition to these pressures, invasive plants threaten type conversion from coastal dune scrub habitat to non-native monocultures, jeopardizing important ecological functions and successional habitat movements. Implementation of the project will address contaminant issues by restoring the freshwater marsh hydrological functions, filtering contaminants from agricultural and State Highway 1 runoff. This project will also protect the ability of Black Lake to be a source of perennial water by recontouring wetland areas and removing hydrophytic vegetation and bioaccumulation within the system. This will reverse the trend of sedimentation and infill that is leading to less water availability and reduced groundwater recharge. Contaminants that this project will contribute to reducing are located in the table below.

Table. Project contribution towards reducing contamination	
Contaminant or Water Quality Impact	Project Benefits
Sedimentation/Wetland loss	Recontour wetland and remove overgrown hydrophytic vegetation to restore hydrology and prevent wetland loss.
Contaminants from Highway 1 runoff	Restored wetland habitats will filter out contaminants in runoff from Highway 1
Invasive exotics	This project will remove large populations of veldt grass, Saharan mustard, iceplant, and other overgrown invasives
Nutrients (Nitrogen and Phosphorous)	Improving hydrology of wetlands to filter and remove nutrients from surrounding agriculture in Black Lake Canyon

9. **Catalyst for future conservation.** This project will directly prepare LCSLO to effectively implement similar projects in the area. LCSLO owns multiple properties within Black Lake Canyon, the coastal wetlands that feed into Black Lake. LCSLO also holds a conservation easement on the neighboring property (Dune Lakes Limited) which contains other coastal dune lakes. We plan to apply for future grant funding to carry out similar projects on LCSLO-owned Black Lake Canyon properties and at Dune Lakes Limited. Dune Lakes Limited has already been consulted and is interested in participating. We will be able to learn from this project and successfully implement the project on adjacent coastal wetlands. The momentum built from implementing these projects will allow us to encourage major reconstruction of the Highway 1/ Railroad culverts to allow more natural flow to Black Lake through the Black Lake Canyon.

LCSLO is collaborating with Monarch Alert and their research efforts to collect Monarch overwintering microhabitat characteristics at BLEA. This collaboration and the restoration implemented through this funding, will lead to important data about how best to protect overwintering sites. This will allow LCSLO to apply for additional Monarch conservation grants to continue and expand Monarch conservation at BLEA and the surrounding overwintering sites.

LCSLO is involved in a complex-wide effort to manage rare and diverse habitats. This includes direct management of multiple projects on the Guadalupe-Nipomo Dunes National Wildlife Refuge. Projects range from coastal wetland enhancement for the protection of the federally threatened California red-legged frog and the federally endangered La Graciosa thistle, to foredune habitat enhancement for Western Snowy Plovers and rare dune plant species. LCSLO also oversees restoration projects at Point Sal County Park. LCSLO's proven track record in implementing coastal wetland and coastal dune habitat restoration will be leveraged to continue to apply for grants and restoration work. The partnerships made implementing these projects have expanded our expertise and strengthened our ability to apply for diverse funding sources.

10. **Partners in conservation.** Funding and resources for the project have been committed by CDFW OSPR, Dunes Collaborative Restoration Task Force, SCC, the USFWS Coastal Program, California Native Plant Society-San Luis Obispo Chapter, California Central Coastal Wildlife Society, and LCSLO. The total match amount is \$345,481 of which \$330,361 is cash match. The following table lays out the contribution details. For letters of support please see Appendix A.

Organizations/individuals providing match	Project Contribution	Monetary/In-kind amount
California State Coastal Conservancy (State)	Cash	\$73,500
California Department of Fish and Wildlife, Office of Spill Prevention and Response (State)	Cash	\$94,758
Dunes Collaborative Restoration Task Force (State)	Cash	\$157,103
USFWS Coastal Program (Federal)	Cash	\$2,500
California Native Plant Society – San Luis Obispo Chapter (Local)	Cash/in-kind	\$500 cash/\$7,500 in-kind
California Central Coast Wildlife Society (Local)	Cash/in-kind	\$2,000 cash/\$1,120 in-kind
The Land Conservancy of San Luis Obispo County (Local)	In-kind	\$6,500
Total		\$345,481

11. **Federal share reduced.** The required non-federal match is \$232,598. In-kind match is provided in the amount of \$15,120 and federal match is provided in the amount \$2,500. Non-federal cash matching funds in the amount of \$327,861 will contribute \$95,263 in excess of the minimum requirement, significantly reducing the federal share.

Table. Project Costs and Match	
Total project costs	\$930,390
Required State match	\$232,598
Additional non-federal cash contribution	\$95,263
Percent increase over required match	41%

12. **Education/outreach program or wildlife-oriented recreation.** A large portion of the Guadalupe Nipomo Dunes coastal wetlands are privately owned and do not allow public access. The

preservation of BLEA by LCSLO offers a unique chance for the community to access and learn about these coastal wetlands. LCSLO will provide two docent-led hikes, of approximately 100 individuals, annually for the general public. These hikes will educate participants in the importance of coastal wetlands as habitat for wildlife and how truly special California coastal wetlands are. LCSLO will also organize annual docent-led hikes with the local California Native Plant Society (CNPS) and the California Central Coast Wildlife Society (CCCWS) (approximately 130 additional participants). CNPS San Luis Obispo will work with LCSLO to implement one public volunteer event for three years to manage invasive plant species and collect native seed. In addition, CCCWS will contribute professional services to conduct a one-day bio blitz of the site to provide an updated inventory of wildlife species utilizing the site (4 professionals).

During the implementation of this project, LCSLO will work directly with California Polytechnic University, San Luis Obispo (Cal Poly), and Monarch Alert to implement Monarch overwintering microhabitat research. Cal Poly and Monarch Alert are working to describe specific microclimate characteristics of established monarch overwintering sites. This research will provide important restoration recommendations and help protect Monarch butterflies as their populations decline. LCSLO will work directly with researchers to prescribe enhancements for the monarch overwintering site at BLEA.

Other research projects will directly benefit from the restoration implemented through this project. Cal Poly is currently studying how small mammals are adapting to invasive plant species pressures in the coastal dune habitats. Both the University of California, Santa Barbara (UCSB) and Brigham Young University (BYU) are actively studying rare species found at Black Lake. UCSB is studying the microhabitats needed for the success for the federally endangered Nipomo lupine (threatened by perennial veldt grass invasion) and BYU is researching potential hybridization different Chenopodium species, including Coastal goosefoot, to create sustainably-grown quinoa in the United States.

13. **Other Factors.** The Central Coast region of California supports a broad range of unique habitat types and many special status species. These communities and the species that utilize them are also some of the most threatened because of population growth and urban development, increased pressures from agriculture, recreation and tourism, as well as sea level rise and climate change. Additional project benefits are listed in the table below.

Table. Project contribution towards other factors.	
Other Factors	Project Benefit
Coastal Dune Scrub	Remove non-native invasives and plant natives to restore coastal dune scrub habitat. Restoration will expand habitat for the endangered Nipomo Lupine, creating expansion and redundancy for the species at BLEA
Rare Plants	Coastal dune scrub plant palette will include outplanting of California Native Plant Society rare plants
Monarch Overwintering Grove	Project will work with monarch experts to strategically remove dead/dying hazard trees and

	restore nectare sources for overwintering monarchs.
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Coastal dune scrub habitat (or central dune scrub) is recognized as a sensitive plant community within the CNDDDB because of its inherently limited distribution and the small geographic extent that remains. It is estimated that as much as 90 percent of the historic extent of this vegetation type has been lost to development and agriculture. Most of the remaining coastal dune scrub habitat occurs on private lands and it's estimated that less than 10 percent is afforded any conservation status or protections. Loss of this habitat type is particularly severe because of its proximity to coastal population centers throughout the state (CalIPF 2004). More isolated stands of coastal dune scrub southeast of the project site were recognized as Environmentally Sensitive Habitat Areas (ESHA) by the California Coastal Commission during permitting processes associated with private development projects. Coastal dune scrub is a later-successional plant community, as opposed to the vegetative stands that are present within the open sand along the beach and in the immediately adjacent foredune communities. This habitat type is extremely dynamic and diverse, and the species composition is highly variable depending on the amount of annual rainfall, level of disturbance, current land use and/or management regimes, successional stage of development and degree of infestation from non-native invasive species; especially perennial veldt grass. Coastal dune scrub habitats support many rare, threatened and endangered plant and wildlife species and harbor tremendous biodiversity. Implementation of this project will ultimately restore 21.04 acres of this sensitive and unique plant community that will be conserved and managed for perpetuity. Future activities include outplanting of federally endangered Nipomo lupine, after the coastal dune scrub habitat is effectively restored. Expansion of the population previously established onsite is highly desirable and important to this species recovery because it will increase resiliency within the population. In this context, species resiliency refers to the ability of the population to withstand stochastic disturbance events and relates to its capacity to bounce back and persist.

Flowering native species will be selected to provide nectar plants for monarchs in the fall and winter months, which is critical to their life cycle. Examples of nectar plants for this component of the project include: California Native Plant Society, Rare Plant Rank (CRPR) List 1B.2 - crisp monardella; CRPR List 1B.2 - San Luis Obispo monardella; mock heather (*Ericameria ericoides*); and coastal buckwheat (*Eriogonum parvifolium*). California native, overwintering trees will be planted along the northwest portion of the eucalyptus ring to provide future monarch overwintering locations. Suitable trees include Monterey cypress (*Hesperocyparis macrocarpa*) and Monterey pine (*Pinus radiata*).

Drawings/Maps/Photographs

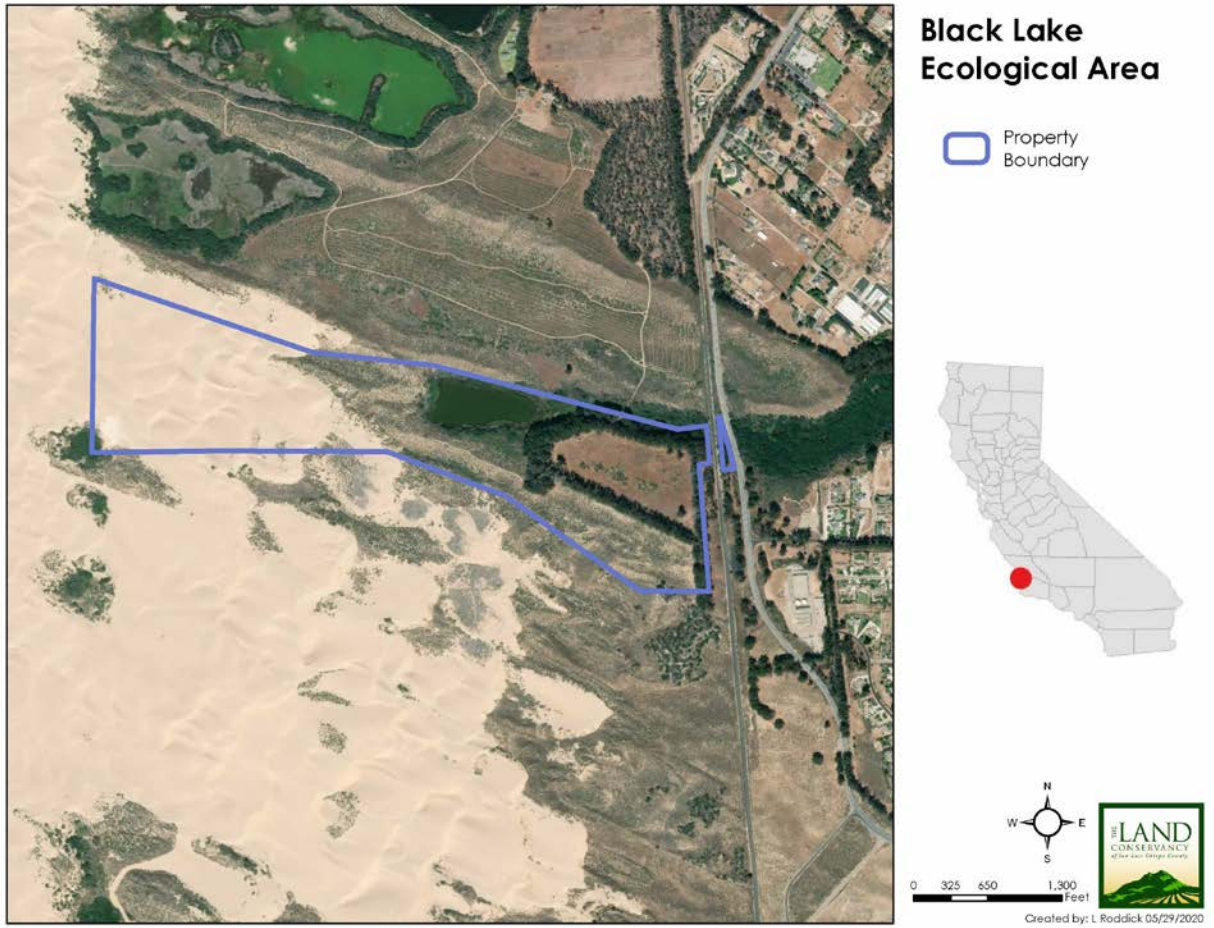


Figure 1. Black Lake Ecological Reserve Site and Vicinity Map.

Black Lake Ecological Area

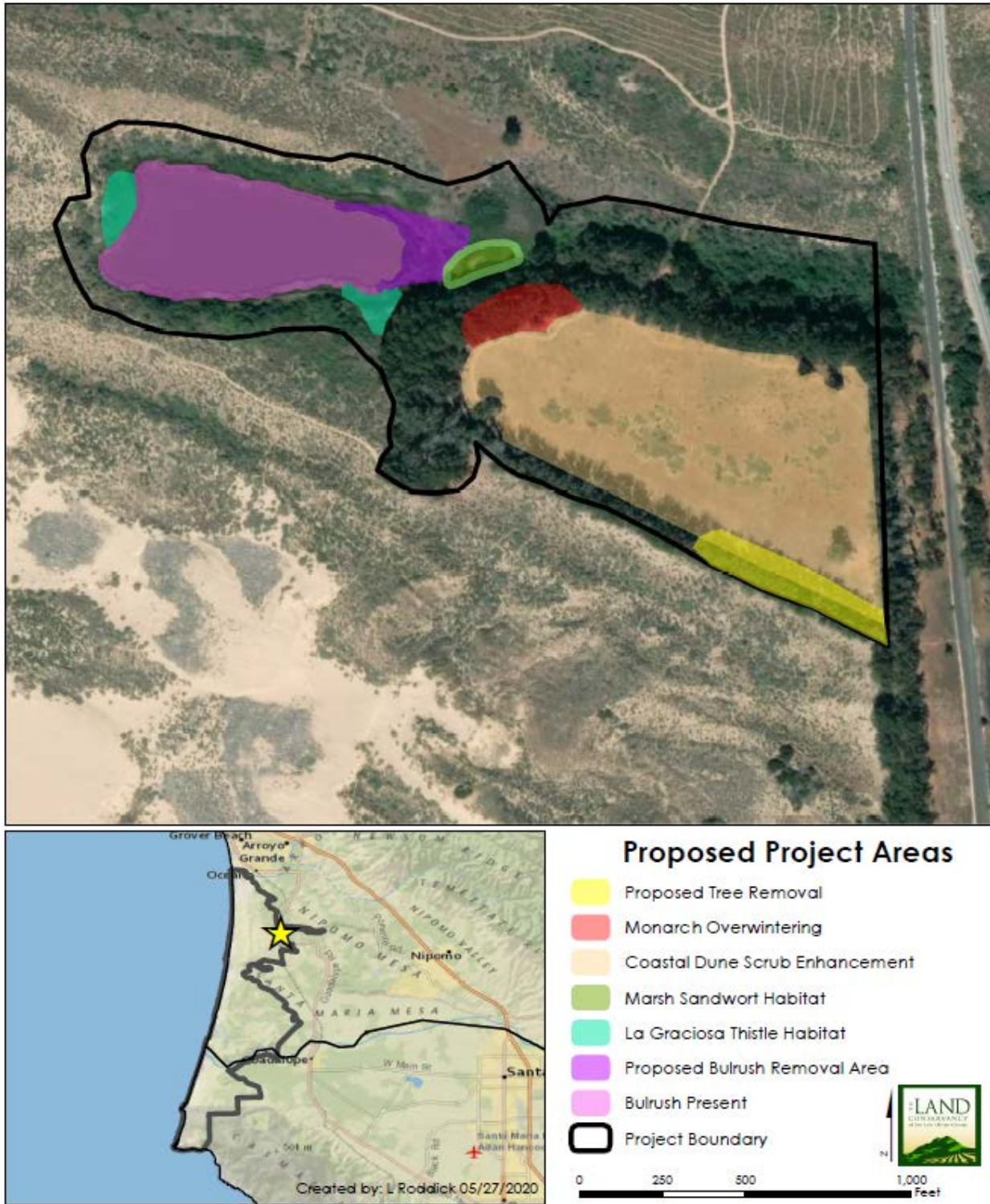


Figure 2. Location of project activities within BLEA.



Figure 3. View of Black Lake from the West.

Guadalupe Nipomo Dunes Complex

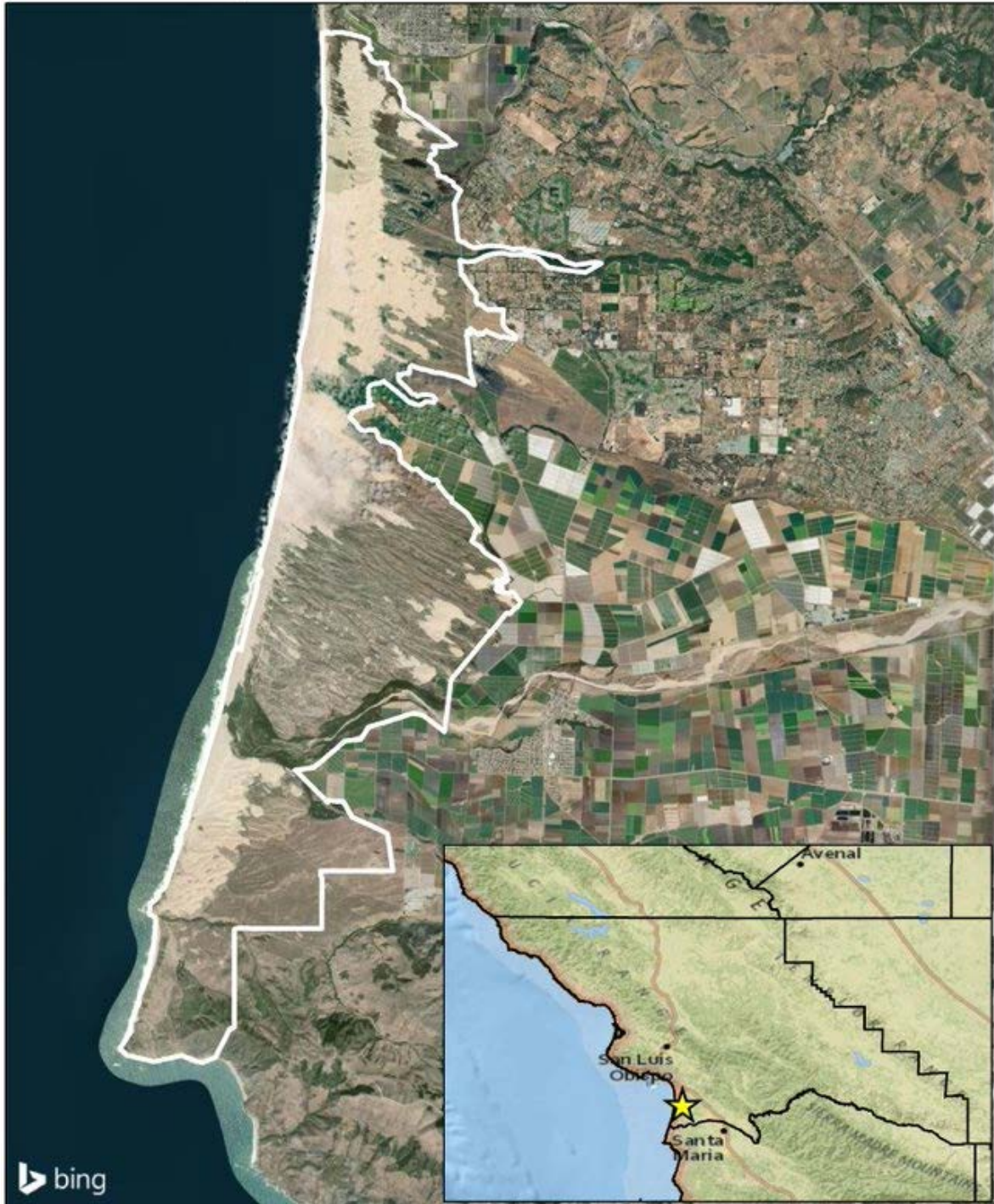


Figure 4. Guadalupe Nipomo Dunes Complex (GNDC).

Black Lake Canyon Ecological Area Habitat Restoration
National Coastal Wetlands Conservation Grant Program

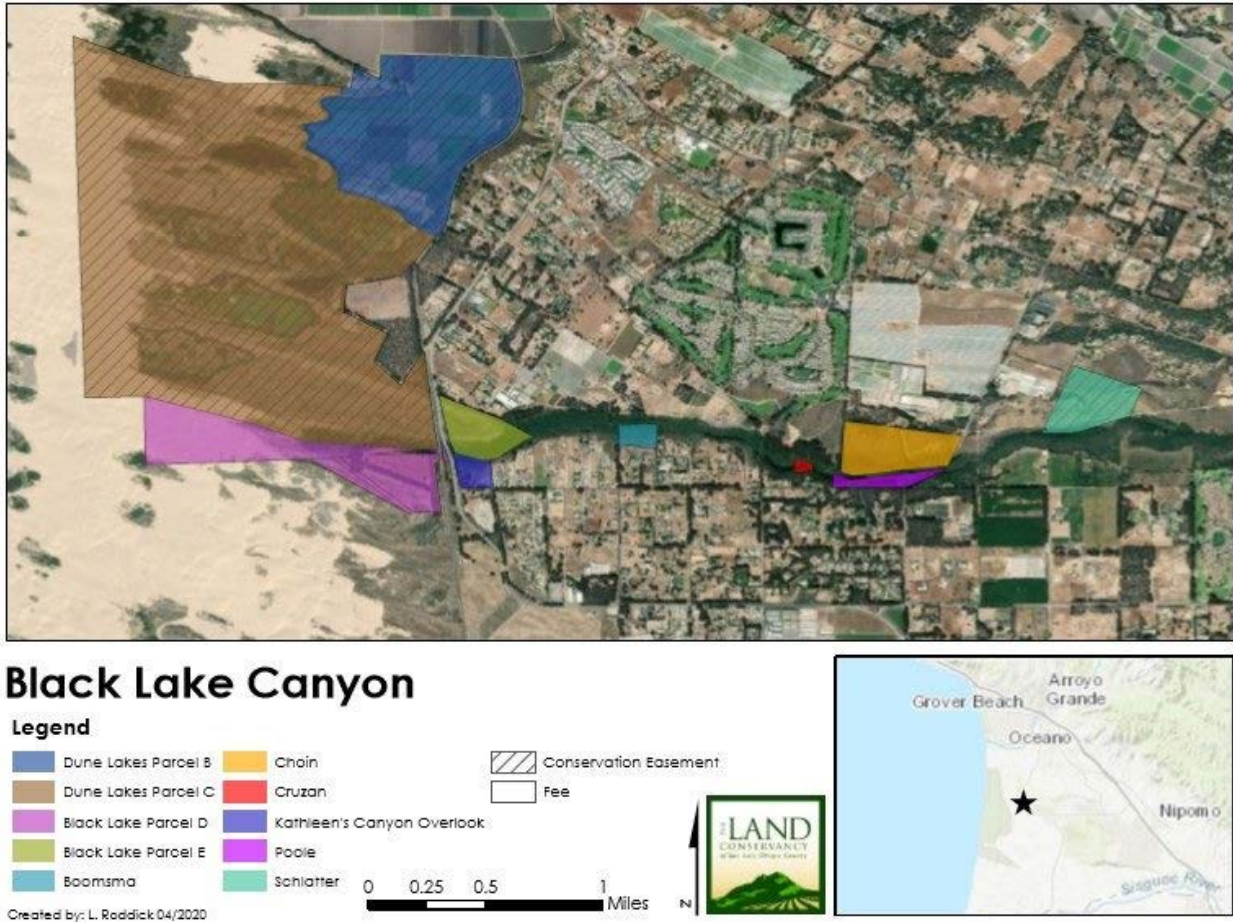


Figure 5. Conservation easement and fee ownership of the Land Conservancy of San Luis Obispo County within Black Lake Canyon and Dune Lakes.



Figure 6. View of coastal dune scrub vegetation.



Figure 7. Coastal dune scrub habitat at Black Lake Ecological Area.



Figure 8. Monarchs overwintering at BLEA and view of eucalyptus ring from the east. Vegetation in foreground shows monoculture of non-native, invasive vegetation.



Figure 9. Nipomo lupine at Black Lake Ecological Area.

Black Lake Canyon Ecological Area Habitat Restoration
National Coastal Wetlands Conservation Grant Program



Figure 10. Site that will be restored and outplanted with La Graciosa thistle, facing southeast.



Figure 11. La Graciosa thistle.



Figure 12. View of the freshwater marsh to be restored. This photo depicts the shallowness of the marsh and depicts the overgrown, encroaching hydrophytic vegetation.



Figure 13. Another view of the freshwater marsh habitat to be restored. Marsh sandwort will be planted at this location.



Figure 14. Marsh sandwort.

Appendix A – Letters of Support



Mailing: PO Box 12206, San Luis Obispo, CA 93406
Office: 1137 Pacific Street, Suite A, San Luis Obispo, CA 93401

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✉ lc@lcslo.org
🌐 lcslo.org

June 22, 2020

Mr. Tim Duff
Project Specialist
California Coastal Conservancy
1515 Clay Street, 10th Floor
Oakland, CA 94612-2512

**Re: Letter of Support and Commitment for the Black Lake Ecological Area
Habitat Restoration Project**

Dear Mr. Duff,

The Land Conservancy of San Luis Obispo County (LCSLO) supports the proposed restoration of the Black Lake Ecological Area. As one of the most unique and ecologically diverse habitats in California, the enhancement and long-term protection of this ecosystem is critical, not only for its diversity and rarity, but also as a refuge for critically imperiled species such as marsh sandwort (*Arenaria paludicola*), La Graciosa thistle (*Cirsium scariosum* var. *loncholepis*), and Nipomo lupine (*Lupinus nopomensis*), among other rare and endangered botanical and wildlife species.

This letter further documents the in-kind support that LCSLO will provide the State Coastal Conservancy in support of the project. Specifically, LCSLO has committed to providing \$6,500 in in-kind match for planning and permitting preparation for this proposal.

Thank You,

Kaila Dettman
Executive Director
The Land Conservancy of San Luis Obispo County





June 8, 2020

Mr. Tim Duff, Project Specialist
California Coastal Conservancy
1515 Clay Street, 10th Floor
Oakland, CA 94612-2512

Re: Letter of Support and Commitment for the Black Lake Ecological Area Habitat Restoration Project

Dear Mr. Duff,

I am writing you today to express my strong support for the allocation of National Coastal Wetland Conservation Grant funds for the habitat restoration and enhancement of Black Lake Ecological Area. As one of the most unique and ecologically diverse habitats in California, the enhancement and long-term protection of this ecosystem is critical, not only for its diversity and rarity, but also as a refuge for critically imperiled species such as the Monarch butterfly (*Danaus plexippus*), among other rare and endangered botanical and wildlife species.

This letter further documents the in-kind support that I will provide the State Coastal Conservancy in support of the project. Specifically, committing the following:

- Providing professional services pertaining to current Monarch Butterfly overwintering research and data driven input on restoration activities.

Sincerely,

Francis Villablanca

Francis Villablanca, Ph.D.
Professor, Biological Sciences
805-756-2200
fvillabl@calpoly.edu
MonarchAlert.calpoly.edu



June 11, 2020

Mr. Tim Duff, Project Specialist
California Coastal Conservancy
1515 Clay Street, 10th Floor
Oakland, CA 94612-2512

Re: Letter of Support and Commitment for the Black Lake Ecological Area Habitat Restoration Project

Dear Mr. Duff,

The California Central Coast Chapter of The Wildlife Society fully supports the allocation of National Coastal Wetland Conservation Grant funds for the restoration and enhancement of Black Lake Ecological Area. The larger Guadalupe-Nipomo Dunes Complex that Black Lake is part of supports many sensitive plant and animal species and rare habitats but is threatened by lowering groundwater, climate change, and invasive species. This project will rehabilitate and maintain the ecosystem functions and species around Black Lake, is well designed, and is aligned with the goals of our Chapter.

In addition, the Chapter is offering financial support with a contribution of \$2,000 to this effort and the Chapter Board Members are offering our professional services for conducting a one-day bio blitz of the site to provide an updated inventory of wildlife species utilizing the site (estimated value of \$1,120, four experts for one day).

Sincerely,

Sara Snyder
President of the California Central Coast Chapter of The Wildlife Society
president.cccctws@gmail.com
925-381-4893



CALIFORNIA
NATIVE PLANT SOCIETY

June 14, 2020

Mr. Tim Duff, Project Specialist
California Coastal Conservancy
1515 Clay Street, 10th Floor
Oakland, CA 94612-2512

**Re: Letter of Support and Commitment for the Black Lake Ecological Area
Habitat Restoration Project**

Dear Mr. Duff,

The California Native Plant Society, San Luis Obispo Chapter (CNPS SLO) supports the proposed restoration of the Black Lake Ecological Area (BLEA). As one of the most unique and ecologically diverse habitats in California, the enhancement and long-term protection of this ecosystem is critical, not only for its diversity and rarity, but also as a refuge for critically imperiled species such as marsh sandwort (*Arenaria paludicola*), La Graciosa thistle (*Cirsium scariosum* var. *loncholepis*), and Nipomo lupine (*Lupinus nopomensis*), among other rare and endangered botanical and wildlife species.

This letter further documents the in-kind support that CNPS SLO will provide the State Coastal Conservancy in support of the project. Specifically, CNPS SLO has committed to the following:

- Contributing \$500 in cash-match funding to be paid over the course of three years and applied directly to materials, services, and/or labor required for the proposed project.
- Organizing one volunteer work day annually for three years, which will be focused on manual removal of invasive species and, as needed, native seed collection to be used in restoration efforts. Up to 125 volunteer hours at \$20 per hour will be provided annually, for a total of \$7,500 (\$2,500 annually) of in-kind services.

CNPS is committed to the conservation of native plants and their natural habitats, and is excited to be a partner on this important project.

Sincerely,

Kristen Nelson, Vice President
California Native Plant Society, San Luis Obispo Chapter

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