



CALL FOR PROJECTS FOR THE NINTH CYCLE OF THE
TransNet ENVIRONMENTAL MITIGATION PROGRAM
LAND MANAGEMENT GRANT PROGRAM
SPECIES AND HABITAT RECOVERY GRANT APPLICATION FORM

Applicant Name: San Diego Audubon
Address: 4010 Morena Blvd, Suite 100, San Diego, CA 92117
Phone and Email Address: 858-273-7800 ; redfern@sandiegoaudubon.org
Name of Property: Mission Bay Park
General Location: Metro San Diego
Jurisdiction: City of San Diego
Total Acres: 4,600 acres (156 acres within Management Unit 1- South Coast)
Estimated Acres Requiring Management: 22.26 acres
Owner(s) of Property: City of San Diego
Land manager(s) of property (include name[s]): City of San Diego -- Parks and Recreation Dept

Brief Project Summary that includes your primary goal and objectives (200-word maximum):
For over twenty-five years, San Diego Audubon has worked collaboratively with the City of San Diego on the management of habitat for Nuttall's Acorn (NULO) and federally listed endangered California Least Tern (CLTE) in Mission Bay. Owing to our institutional knowledge, biological expertise, volunteer capacity, and demonstrated ability to manage vegetation, we have become a leader in this work. Key to the success of previous efforts has been the integration of various management priorities (e.g., endangered species nesting site management, habitat restoration, and predator management) into one holistic management effort for the species, but in recent years these efforts have become disjointed, negatively affecting the stability, health, and productivity of CLTE and NULO. Here we propose an integrated, three part management effort aimed at permanently improving habitat conditions in Mission Bay, thereby reducing long term management costs for the future maintenance of these MSP-designated SO species. Through the development of a Long Term Management Plan specific to Mission Bay and Annual Restoration and Management Plans for priority sites, ecosystem-based management, and predator control community science, our goal is to support the creation and maintenance of resilient, self-sustaining CLTE and NULO populations in Mission Bay.

- Quantify Expected Results (add bullets as necessary):
• Long Term Management Plan for CA Least Tern in Mission Bay (report)
• Annual Restoration and Management Plans and End of Season Report for CA Least Tern Nesting Sites in Mission Bay
• At least 60 habitat restoration events conducted over five years
• NULO population at Mariner's Point maintained and NULO translocated to Stony Point
• Total invasive cover at select CLTE nesting sites below 20% and total vegetation cover below 30%
• Updated volunteer field protocol for predator control through community science
• Real time reports to predator control staff regarding presence/absence of CLTE predators during nesting season
• Weekly data sheets compiled for predator control staff and post-nesting season survey
• Quarterly and Final Project Reports

Brief Description of dedicated staff and/or consultants that would work on Project (200-word maximum):

1 While collaboration is encouraged in the development of the grant proposal, the proposal must identify one organization as the lead entity that will enter into an Agreement with SANDAG.

2 If the applicant is not the landowner, please submit a letter or right-of-entry permit from the land owner granting permission to perform the land management duties as outlined in the proposal. Failure to provide the letter or right-of-entry permit will lead to disqualification of the proposal. Attached letter or right-of-entry permit (if applicable) does not count towards 12-page maximum.

Originally founded in 1948, **San Diego Audubon (SDAS)** has served the region for nearly 70 years. Programs include conservation, education, and sanctuary operations, with a focus on protecting the region's birds, other wildlife, and their habitats. **Megan Flaherty, SDAS Restoration Program Manager**, will be the lead project manager. Megan holds a Master's degree in conservation biology and has extensive experience collaborating with federal, state, and non-profit partners to implement community-based conservation programs throughout San Diego County. **Chris Redfern, SDAS Executive Director**, will directly supervise Megan and will lead the development of long term management plans for CLTE in Mission Bay. Chris has been with San Diego Audubon since 2006 and leads a team of ecologists, outdoor educators, and communications professionals who deliver innovative, award-winning programs in the areas of nature education, community-based habitat restoration, endangered species recovery, and community science. **Kelsey Wadman, SDAS Development and Communications Associate**, will be responsible for project reporting and invoicing. Kelsey coordinates San Diego Audubon's fundraising efforts, grant management, monthly newsletter, and social media. Kelsey holds a Master's in English from San Diego State University and has experience in an array of nonprofit activities, including serving as an organizer for the San Diego Women's March.

Funding Needs Summary

Budget Item	Requested Funding Amount	Proposed Matching Funds*	Description
Personnel Expenses Staff	\$196,646.71	\$6,508.20	Includes staff time for non-administrative work on the project
Personnel Administrative Expenses	\$9,716.09	\$0	Includes all staff time to administer the contract
Consultant Expenses	\$30,000	\$149,557.30	Includes all costs for consultant services
Other Direct Expenses	\$27,619.38	\$0	Includes all equipment, supplies, mileage, etc.
Indirect Costs ³	\$61,908.84	\$0	All indirect charges (e.g., overhead) on the project, if any.
Totals	\$325,891.02	\$156,065.50	

Are there matching funds available? Yes No

If yes, how are the matching funds assured (100-word maximum)? These matching funds are derived from two sources: the monetary value of volunteer time (valued at \$28.46 as per the Bureau of Labor Statistics) and from the San Diego Audubon budget for staff time. We have conservatively estimated the number of volunteer hours that will be expended on this project (estimated here at 1,245 hours annually, as opposed to the 3,200 hours actually donated by SDAS volunteers in 2017 on Mission Bay conservation efforts). Staff time to support Subtask 1.1 will come directly from the San Diego Audubon annual budget (see attached letter).

PROJECT PROPOSAL

A. Project Purpose

1. Describe the proposed management activity(ies) and how it relates to the Management Strategic Plan (MSP) for Conserved Lands in Western San Diego County.

For over twenty five years, San Diego Audubon has worked collaboratively with the City of San Diego on the management of habitat for nesting California Least Tern (CLTE) in Mission Bay. Initially, this work focused on Mariner's Point (MP), one of the most productive CLTE nesting sites in the state. Historically, the City had maintained CLTE habitat through large scale

³ Indirect Costs are only allowable if: (1) applicant has an indirect cost allocation plan audit approved by a qualified independent auditor or (2) the applicant's proposed method for allocating indirect costs is submitted with the proposal in accordance with OMB guidelines and approved by SANDAG. Indirect costs will not be reimbursed until one of the two conditions above are satisfied and indirect cost allocation plans must be renewed annually. The indirect cost methodology (if applicable) included with the application does not count toward the 12-page maximum.

management including removal of all vegetation on site, as well as the application of broadcast herbicide. Because of the presence of sensitive plants at MP, specifically Nuttall's Acmispon (NULO), these large scale management actions were not possible. Instead, San Diego Audubon volunteers have hand-managed the site for more than two decades, removing only select invasive/non-native plants while leaving behind NULO and other native plants (e.g., Coast Woolly Heads, Beach Evening Primrose). These techniques have resulted in MP having the highest relative cover of native vs non native plants as compared to other nesting sites in Mission Bay where City actions (particularly scraping) increased the spread of invasive plants (as demonstrated quantitatively by results from ongoing vegetation monitoring efforts conducted by San Diego Audubon and funded by *TransNet*).

Over the past seven years, San Diego Audubon's leadership in the management of CLTE nesting sites in Mission Bay has increased dramatically due to several factors, including: 1-staff turnover within the City of San Diego's Mission Bay Park Rangers has resulted in San Diego Audubon maintaining critical institutional knowledge about how each site is managed; 2- The natural resources and endangered species found in Mission Bay Park are managed within the City of San Diego's Developed Regional Parks Division (which focuses largely the public) rather than the biologists of the City's Open Space Division; therefore, San Diego Audubon provides the biological and ecological expertise otherwise absent from CLTE management in Mission Bay Park; 3- hand weeding (the most effective invasive control technique in Mission Bay) is incredibly labor intensive and relies on San Diego Audubon's vast cadre of volunteers to accomplish (over 1,000 volunteers donated more than 3,000 hours to support the management of Mission Bay CLTE sites in the past year); this community-based habitat management approach, which taps into our members' love for local birds, can not be duplicated by a municipality.

Key to the success of previous efforts has been the integration of various management priorities (e.g., endangered species nesting site management, habitat restoration, and predator management) into one holistic management effort for the species. In recent years, these efforts have been separated into disparate projects, which has hindered the continuity, effectiveness, and efficiency of the lifecycle management actions necessary to support these priority species. Here, we propose a three part management strategy to holistically manage for these threatened species within Mission Bay Park over the next five years, consistent with goals and objectives in the MSP identified as priorities for 2017-2021. Just as our efforts at MP over the past two decades have reduced the cost and intensity of effort required to maintain that site for CLTE, the discrete project described below, against a backdrop of ongoing management and maintenance activities to support this conservation-reliant species, will reduce the resources required to manage these sites over the long term by permanently improving conditions for CLTE and NULO in Mission Bay Park.

In collaboration with the City of San Diego, US Fish and Wildlife Service, CA Department of Fish and Wildlife, non-profit organizations, and volunteers, we propose to manage coastal dune habitats within Mission Bay Park to support CLTE across its lifecycle (i.e., egg to nestling to fledgling to adult), with additional benefits to NULO, both of which are designated as "SO" species in the Management and Monitoring Strategic Plan (MSP). Activities proposed in this project will continue and expand work previously supported by *TransNet* funds and are in alignment with MSP goals as described in MSP Volume 2D, Sections 1.2 (Plants: Nuttall's Acmispon) and 6.9 (Birds: California Least Tern). Current and past management is occurring and has occurred on these sites, as described above. The ecosystem improvements described below (particularly invasive control and predator management) will support the development of persistent, self-sustaining populations that reduce the level of effort required to manage these species in the future:

Task 1. Management Planning:

- Subtask 1.1 - Long Range Management Plan (in support of MSP objective #STEANT-5):
 - Until now, management of CLTE in Mission Bay Park has occurred on an annual, ad hoc basis. This has limited land managers' ability to create resilient, self-sustaining populations that can withstand and respond to long term ecological processes, including those affected by anthropogenic activity (e.g., annual "scraping" of CLTE nesting

sites may create ideal nesting conditions in the short term but may negatively impact sustained recovery of the species by encouraging the growth of annual, non-native plant species over the long term).

- We propose to work with land owners, resource agencies, regional land management entities (e.g., SDMMP), and local non profits to develop a long term strategy for CLTE management specific to Mission Bay Park. In developing this plan, we will refer closely to the Mission Bay Conservation Action Plan (which identified priority conservation actions to support CLTE) developed by San Diego Audubon and partners in 2011 (and was previously provided to the SDMMP), as well as priorities included in the SDMMP's Management and Monitoring Strategic Plan, and the Mission Bay Park Natural Resources Management Plan.
- Included in this Long Range Management Plan will be efforts to identify funding streams that can sustainably support the long-term management of CLTE in Mission Bay.
- *Note: This subtask will be partially supported via matching funds as described below.*
- ★ Subtask 1.2 - Annual Restoration and Management Plans (in support of MSP objective #STEANT-5 and #ACMPRO-2):
 - Though partners involved in on-the-ground management of CLTE nesting sites in Mission Bay Park have historically met each fall to plan that season's restoration effort, documentation of various management actions, their timing, and their effectiveness has been haphazard. This has limited conservationists' ability to track improvements to habitat quality through time and attribute it to specific management actions.
 - We aim to address this problem by developing detailed annual restoration/management plans in conjunction with on-the-ground partners (primarily City of San Diego Mission Bay Park Rangers) each fall for each site, and developing summary reports at the end of each restoration season (i.e., the beginning of each nesting season in spring) that document which management action(s) have occurred at which site, by whom, and when.

Task 2. Site Management (in support of MSP objective #STEANT-5 and #ACMPRO-2):

- As identified in Volume 2 of the MSP, "the overarching goal for California least tern is protect, enhance, and restore occupied and historically occupied habitat." The Mission Bay sites represent a significant proportion of the species's breeding productivity across its range and is the exact type of "occupied and historically occupied" habitat the MSP describes as requiring protection and restoration. Because NULO co-occurs with CLTE in Mission Bay, restoration and protection of CLTE nesting sites confers additional protection for NULO. Additionally, included in the proposed site management activities is the continuation of San Diego Audubon's current NULO translocation efforts recently initiated with *TransNet* funds (which expire in 2018).
- We propose to conduct site management activities at priority CLTE nesting sites and NULO sites in Mission Bay, focusing on community-based restoration but also including herbicide application as needed. Management activities can include but are not limited to: invasive plant removal, native plant revegetation (including NULO translocation in collaboration with SDMMP Rare Plant Management Program), and pre- and post-emergent herbicide application (all of which support CLTE and NULO), as well as repair/maintenance of chick fencing and installation of anti-predator devices (e.g., fencing, nixalite, chick predator avoidance structures, etc.), and placement of tern decoys to attract adults, to specifically support CLTE.

Task 3. Predator management through community science (in support of MSP objective #STEANT-1):

- Identified in the "MSP Roadmap Species, Vegetation, and Threat Management Objectives Available for Implementation" is objective #STEANT-1, "Implement predator control". In addition to conducting predator control itself, the MSP specifically calls for "tracking of predator-tern interactions to provide real-time data to improve control efforts during the breeding season."
- Consistent with work successfully conducted by San Diego Audubon since 2013, we propose to collaborate with USDA APHIS Wildlife Services to support predator management efforts through community science (formerly called "citizen science"). Trained San Diego Audubon volunteers will conduct assessment shifts at priority CLTE nesting sites in Mission Bay to track the presence/absence of key CLTE predators and their interactions with CLTEs, and report the sightings to predator management staff in real time. Work includes recruiting, training, and scheduling volunteers, coordinating with

USDA staff, and analyzing predator data to inform predator management. (Note that funding for USDA APHIS Wildlife Services is not included in this proposal.)

2. Which MSP species and their habitats will benefit from the proposed management activity? Which specific MSP objective(s) and action(s) will be implemented? Name the specific MSP species occurrence(s) to benefit from the management activity, if applicable.

The primary species to benefit from these management activities are the CA Least Tern (CLTE) and Nuttall's Acmispon (NULO), both of which are identified by the MSP as SO species. Additionally, managing habitat for these focal species protects the whole suite of plants and animals that co-occur with CLTE and NULO. Co-occurring plants include Coast Woolly Head (*Nemacaulis denudate*), Pink Sand Verbena (*Abronia umbellata*), Silver Beach Bur (*Ambrosia chamissonis*), and Beach Evening Primrose (*Camissoniopsis cheiranthifolia*). Co-occurring birds include Killdeer, Horned Lark, Western Sandpiper, and Brown Pelican.

The occurrences of NULO to benefit from the management activity include at a minimum ACPR_1FIIS007 (Fiesta Island) and ACPR_1MAPO004 (Mariner's Point), but may also include ACPR_1SOSH006 (South Shores), ACPR_1NMLA001 (No Man's Land) as capacity allows. The occurrences of CLTE to benefit from the management activity include at a minimum Mariner's Point, Stony Point, and FAA Island, but may also include North Fiesta Island and San Diego River Mouth as capacity allows. All of these occurrences occur within MSP Management Unit 1. In implementing these management activities, the following MSP objectives and actions will be implemented (quoted text is derived from the MSP and/or the MSP Portal via sdmmp.com):

- Goal: "Protect, enhance, and restore California least tern occupied and historically occupied habitat to create resilient, self-sustaining populations that provide for persistence over the long-term (>100 years)."
 - Objective STEANT-1: "From 2017-2021, annually conduct predator control at breeding least tern colonies before and during the nesting season to improve fledgling success. Include tracking of predator-tern interactions to provide real-time data to improve control efforts during the breeding season."
 - Actions: "Tracking of predator-tern interactions to provide real-time data to improve control efforts during the breeding season."
 - Objective STEANT-5: "From 2017-2021, perform routine management activities such as invasives removal, sand replenishment, nest prep, and protecting occurrences from disturbance through fencing, signage, and enforcement."
 - Actions: "Perform management activities protecting occurrences from disturbance through fencing, signage, and enforcement."
 - Goal: "Maintain or enhance existing Nuttall's acmispon occurrences to ensure multiple conserved occurrences with self sustaining populations to increase resilience to environmental and demographic stochasticity, maintain genetic diversity, and ensure persistence over the long term (>100 years) in coastal bluff and coastal dune habitats."
 - Objective ACMPRO-2: "Beginning in 2017, conduct routine management actions identified through the IMG monitoring at Nuttall's acmispon occurrences on Conserved Lands (see occurrence table). Depending on the type and level of threat, management should be conducted as needed."
 - Actions: "Perform routine management activities such as protecting occurrences from disturbance through fencing and enforcement and controlling invasive non-native plant species =20% absolute cover."
3. To be eligible for funding, the proposed project must be within the MSP area. In which Management Unit is the project located? (Attach a map) - This project is located within Management Unit 1 (see map on page 9).
 4. Describe the stressors and/or threats to the MSP species and their habitats in the project area that will be addressed through implementation of this project proposal.

Currently, both species are threatened by human disturbance, degraded habitats, limited range, expansion of urban development, and invasive plants (MSP 2017). NULO are additionally threatened by high nutrient levels, loss of sand, climate change/sea level rise, and altered hydrology (CNPS 2017), while CLTE are additionally threatened by human activities (e.g., noise from jet skis and fireworks, trampling by people and their pets), limited food availability (which increases predation risk via lowered nest attendance during increased foraging time), and unsustainable levels of predation. This project proposes necessary management activities to minimize these threats by reducing non native/invasive vegetation through herbicide application and direct hand removal (which improves degraded habitat) and limiting human disturbance by assisting the City of San Diego in their access control efforts. Specific to NULO, this project will address the issue of limited range by continuing translocation efforts (which also support enhanced genetic diversity). Specific to CLTE, this project will address unsustainable predation levels by assisting in predator control efforts.

5. Describe the management techniques proposed, including whether they have been previously used successfully and where. Are there any negative effects to MSP and other sensitive species and their habitats that could result from the proposed management action?

For general invasive control and to support the growth of native species, successful management techniques used in the past and proposed for this project include herbicide application (including both pre- and post-emergent products), hand-weeding, seed and substrate translocation, and planting. Hand-weeding has been successfully implemented at Mariner's Point (MP), FAA Island (FAA), and Stony Point (SP) as well as in patches of native plants at North Fiesta Island (NFI), combined with selective, spot-spraying of annual invasives. Techniques for predator management include conducting predator tracking shifts at priority nesting sites according to a vetted protocol developed under a previous *TransNet* grant (subsequently updated using best available information), which includes real time reports to predator control staff regarding presence/absence of CLTE predators.

Specific proposed management actions (i.e., actions conducted under Tasks 2 and 3) include:

- Each fall/winter (roughly Sept 1 – Jan 15):
 - o Conduct quantitative vegetation monitoring at CLTE sites in Mission Bay using transect- and quadrat-based monitoring methodology developed in collaboration with San Diego State University (which has been used to assess these sites since 2012) to assess the relative coverage of native vs non native plant species, as well as total cover, and to document the presence of any novel non native species. Where NULO co-occur with CLTE, additionally conduct SDMMMP's Rare Plant Monitoring protocol (in association with City of San Diego Open Space Division staff).
 - o Use this information to create tailored annual management plans for each site covering the fall/spring restoration season (which runs from September 15-April 15).
 - o Coordinate with City of San Diego Mission Bay Park Rangers and USFWS staff on priority large scale management actions needed at each site, including scraping and broadcast herbicide if needed (although avoided if possible due to the impact on non-native cover), and sand amendment as applicable. Additionally coordinate with Rangers on the application of pre-emergent herbicide where needed (likely NFI and SP).
 - o Conduct 1-3 community based restoration events at each priority CLTE nesting sites in Mission Bay (typical events will be 3 hours long and occur on Saturday or Sunday mornings with 15-100 attendees). The focus of fall restoration events will be on clearing out overgrowth of native species (mostly Beach Evening Primrose, Silver Beach Bur, and Pink Sand Verbena) from the previous season to reduce total cover, as well as hand removal of priority non native/invasive species (primarily Devil's Thorn and Filaree from MP, Cocklebur and Sea Rocket from SP, and Russian Thistle from NFI and FAA).
 - o Collect NULO seed and substrate from MP and disperse at NULO expansion sites (primarily SP), as outlined in the best management practices guided titled "Nuttall's Lotus (*Acmispon prostratus*) – Species Description, Management Goals and Translocation Protocols for Mission Bay Sites", developed by San Diego Audubon under a previous *TransNet* project. If necessary, replant full individual plants taken from MP (where total cover may need to be reduced in order to protect nesting CLTE) at NULO expansion sites identified in translocation protocols.

- Recruit, select (through a competitive application process), and train "Conservation Team Leaders" (volunteers who commit to attending a minimum number of restoration events each spring and who lead other volunteers in the field) to increase our on-the-ground capacity during the busier months of the restoration season.
- Each winter/spring (roughly Jan 16-April 15):
 - Coordinate with City of San Diego Park Rangers to re-assess annual restoration plan for effectiveness, identifying additional areas requiring management based on that season's actual on-the-ground conditions (particularly additional herbicide applications).
 - Conduct 3-4 community restoration events at each CLTE nesting site in Mission Bay (MP, SP, FAA, NFI), focusing on removal of non native/invasive plants, watering/hand weeding areas of NULO translocation (this will also be conducted by San Diego Audubon staff during the week as needed based on site conditions), and CLTE prep (e.g., repair/installation of chick fencing, placement of roof tiles for chick refuge and decoys to attract CLTE, repair/installation of anti-predator devices).
 - Just before the start of nesting season (usually the second week in April), conduct quantitative vegetation monitoring (described above) to assess the condition of all CLTE sites as a result of management actions.
 - Begin recruiting and training community science volunteers to conduct assessment shifts at CLTE nesting sites to track presence/absence of CLTE predators.
 - Update field protocol for predator management community science volunteers.
 - At the end of the season, compile information describing all management actions taken at each site, including timing and implementing agency.
- Each summer (roughly April 16-September 1):
 - Continue recruiting and training predator management volunteers.
 - Coordinate predator management volunteers (scheduling assessment shifts, transferring data to USDA Wildlife Services, maintaining field gear, etc.).
 - As staff capacity allows, conduct community based restoration events at non-CLTE NULO sites in Mission Bay (e.g., South Shores, No Man's Land).
 - Prepare field gear for the following restoration season.

While all of the above efforts have been previously conducted at Mission Bay sites in the past with success, the tasks described in this proposal represent a discrete project focused on reducing the long term management needs of these sites so that future ongoing management efforts will require lower effort levels. No MSP or other sensitive species and their habitats will be negatively affected by these efforts. On the contrary, these efforts will support associated native dune plant species and other species/wildlife that rely on this habitat. Recent analysis conducted by Dr. Kristine Preston at SDMMMP of vegetation data collected by San Diego Audubon from CLTE nesting sites in Mission Bay (collected under previous and ongoing *TransNet*-supported projects) indicates that San Diego Audubon's techniques for habitat management (focused on hand weeding and targeted spot spraying as opposed to scraping) has significantly improved these habitats. Specifically, hand pulling at certain sites resulted in 1-21% cover of non-native plants and was significantly ($p < 0.02$) lower than other treatments in the years compared and total native plant cover was significantly greater ($p < 0.001$), varying from 25 to 37% cover, depending on year. This not only creates higher quality nesting habitat to support CLTE productivity, it also supports the full suite of coastal dune species that rely on the limited habitat areas in Mission Bay.

6. *What strategic approach will be used to ensure the successful, long-term outcome of the proposed project (e.g. upstream exotic removal prior to downstream, future on-going maintenance)? Which adjacent conserved lands will not be included and why?*

We propose to take an ecosystem-based approach to the management of CLTE in Mission Bay through coastal dune habitat restoration (also benefitting NULO) and predator control. In practice, this means identifying actions that are most likely to benefit the whole ecosystem over the long term (e.g., timing of pre-emergent herbicide application to effectively control priority invasive

plants) rather than conducting short term actions that may produce ideal conditions for just one target species in the immediate term but which negatively impact the ecosystem over the long term (e.g., scraping). This provides a more holistic approach that will not only benefit the habitat sites themselves, but increase productivity of these SO species. As with previous projects, adaptive management will be incorporated into this effort, ensuring that on-the-ground restoration activities are monitored and lessons are learned to ensure continual improvement in the actions selected that will most likely result in meeting our project goal and objectives. This will be particularly applicable to NULO translocation efforts, which are just beginning in Mission Bay Park over the past two seasons.

7. *What are the goals and objectives for the proposed project? What criteria/metrics will be used to measure success? If applicable, what quantitative monitoring data will be collected to evaluate success? Who will be collecting the monitoring data and what are their qualifications?*

Goal: Support the creation and maintenance of resilient, self-sustaining CLTE and NULO populations in Mission Bay by permanently improving habitat conditions at priority coastal dune sites so that future ongoing management activities require fewer resources, while ensuring the long term persistence of these priority species.

- Objective 1: Conduct at least 12 community based restoration events per season in Mission Bay, attracting an average of 20 people per event
 - o Criteria/metrics: number of events held and number of participants
- Objective 2: Reduce invasive and/or nonnative plant species at selected sites to less than 20% absolute cover
 - o Criteria/metrics: percent cover of invasives
- Objective 3: Maintain vegetation (non-native plus native plants) at less than 30% total cover at selected sites
 - o Criteria/metrics: percent total vegetation cover
- Objective 4: Enhance/establish NULO at sites with appropriate substrate and protection
 - o Criteria/metrics: number of individual NULO plants at each management site (estimated using SDMMP's Rare Plant Monitoring protocol)
- Objective 5: Recruit at least 30 volunteers to participate in the predator management community science program over the 18 week nesting season
 - o Criteria/metrics: number of volunteers participating in the program over the course of the season
- Objective 6: Record CLTE predation events by site, species, CLTE age class, and time of day for approximately 20 hours per week during 18 week nesting season
 - o Criteria/metrics: number of tracking shifts conducted, number of predation events identified

San Diego Audubon trained field staff will implement quantitative transect-based vegetation monitoring to evaluate success of objectives 2-4. Quantitative data collected to evaluate success of objectives 5-6 will be collected by a combination of San Diego Audubon volunteers, USDA Wildlife Services staff, and CLTE biological monitors contracted through the City of San Diego.

8. *How will the applicant manage the data collected? What software will be used to house the data? Who will be responsible for compiling and transferring the data to SANDAG? Who will be preparing the required quarterly, final, and all other reports?*

Data will be managed using hand-written data sheets which are then entered into a tabular digital database using Microsoft Excel. Megan Flaherty, SDAS Restoration Program Manager, will be responsible for compiling and transferring the data to SANDAG. Kelsey Wadman, SDAS Development and Communications Associate, will prepare required reports.

9. *Has the proposed project received *TransNet* Environmental Mitigation Program (EMP) funds previously? If so, what was accomplished with the funds and why are additional funds being requested?*

San Diego Audubon has a strong history of successfully implementing *TransNet* funded projects in Mission Bay in support of coastal dune habitats and their species. This particular project (a comprehensive CLTE management effort for Mission Bay) has CFP for the Ninth Cycle of the *TransNet* EMP Land Management Grant Program - Species and Habitat Recovery Grant Application Form

B. Scope of Work by Task- Exhibit A: Proposed Project Scope of Work

Task No.	Task Name	Task Description	Quantifiable Results/Deliverables
1	Management Planning	Subtask 1.1 - Long Range Management Plan: develop a long term strategy for CLTE management specific to Mission Bay Park Subtask 1.2 - Annual Restoration and Management Plans: develop annual adaptive management plans for priority CLTE nesting sites and NULO sites in Mission Bay	<ul style="list-style-type: none"> • Long Term Management Plan for CA Least Tern in Mission Bay (report) • Annual Restoration and Management Plans for CA Least Tern Nesting Sites in Mission Bay • Annual Restoration and Management Report for CA Least Tern Nesting Sites in Mission Bay
2	Site Management	Conduct site management at priority CLTE and NULO sites in Mission Bay, focusing on community-based restoration and herbicide as needed.	<ul style="list-style-type: none"> • 60 habitat restoration events conducted over five years • NULO population at Mariner's Point maintained and NULO translocated to Stony Point • Total invasive cover at select CLTE sites below 20% and total cover below 30%
3	Predator management through community science	Recruit, train, and coordinate volunteers to track key CLTE predators and their interactions with CLTEs, and report sightings to predator control staff in real time.	<ul style="list-style-type: none"> • Updated volunteer field protocol, including information for real-time communication with predator control staff • Weekly data sheets compiled for predator control staff • Post nesting-season survey of agency staff to receive feedback on monitoring and reporting • Website, social media and newsletter updates about volunteer program and CLTEs
4	Grant administration	Financial and programmatic reporting following <i>TransNet</i> EMP guidelines and regulations.	<ul style="list-style-type: none"> • Quarterly Project Reports and Invoices • Final Project Report

C. Budget by Task- Exhibit B: Proposed Project Budget (see following page)

D. Project Schedule- Exhibit C: Proposed Project Schedule

Task No.	Task Name	Proposed Start Date	Months Needed to Complete Task	Task End Date
1	Management Planning	1 Months from NTP	60 Months	10/31/2023
2	Site Management	1 Months from NTP	60 Months	10/31/2023
3	Predator management through community science	5 Months from NTP	60 Months	10/31/2023
4	Grant administration	1 Months from NTP	60 Months	10/31/2023

Please explain why and how much additional time would be needed in the event of any delays due to NTP being provided beyond Fall 2018 and/or unexpected weather conditions such as drought that could occur during the proposed project implementation: If the NTP is delayed beyond Fall 2018, it would shorten the 2018/2019 habitat restoration season (covered by Task 2) by however much the NTP is delayed beyond September 15 and limit San Diego Audubon staff's ability to fully plan the season's restoration activities (Task 1.2), which would need to occur on an ad-hoc basis until the following season. Task 1.1 would not be negatively impacted (these activities are not seasonally dependent and are expected to be completed within 24 months of the NTP). Unless the NTP is delayed beyond April 1, 2019, there should be no impact to Task 3. Unexpected weather is not expected to dramatically impact project implementation.

C. Budget by Task: Exhibit B – Proposed Project Budget

Task No.	Task Name	Year 1 Grant Request	Year 1 Matching Funds ¹	Year 2 Grant Request	Year 2 Matching Funds ¹	Year 3 Grant Request	Year 3 Matching Funds ¹	Year 4 Grant Request	Year 4 Matching Funds ¹	Year 5 Grant Request	Year 5 Matching Funds ¹	Total Grant Request	Total Matching Funds	Total Project Cost
1	Management Planning	\$6,559.61	\$3,205.80	\$6,751.77	\$3,302.40	\$2,419.50	\$0	\$2,487.45	\$0	\$2,557.44	\$0	\$20,775.76	\$6,508.20	\$27,283.96
2	Site Management	\$30,705.10	\$13,803.10	\$31,626.25	\$27,606.20	\$32,575.04	\$27,606.20	\$33,552.29	\$27,606.20	\$34,558.86	\$13,803.10	\$163,017.55	\$110,424.80	\$273,442.35
3	Predator management through community science	\$15,708.81	\$7,826.50	\$13,090.07	\$7,826.50	\$13,482.77	\$7,826.50	\$13,887.26	\$7,826.50	\$14,303.87	\$7,826.50	\$70,472.79	\$39,132.50	\$109,605.29
4	Grant administration	\$1,737.96	\$0	\$1,790.10	\$0	\$1,843.80	\$0	\$1,899.12	\$0	\$2,445.11	\$0	\$9,716.09	\$0	\$9,716.09
	Sub Total	\$54,711.48	\$24,835.40	\$53,258.19	\$38,735.10	\$50,321.11	\$35,432.70	\$51,826.11	\$35,432.70	\$53,865.29	\$21,629.60	\$263,982.18	\$156,065.50	\$420,047.68
	Indirect Cost (30%)	\$12,424.40	\$0	\$12,797.14	\$0	\$11,821.99	\$0	\$12,176.65	\$0	\$12,688.66	\$0	\$61,908.84	\$0	\$61,908.84
	TOTAL	\$67,135.88	\$24,835.40	\$66,055.33	\$38,735.10	\$62,143.10	\$35,432.70	\$64,002.77	\$35,432.70	\$66,553.95	\$21,629.60	\$325,891.02	\$156,065.50	\$481,956.52
	PERCENTAGE	13.93%	5.15%	13.71%	8.04%	12.89%	7.35%	13.28%	7.35%	13.81%	4.49%	68%	32%	100%

NOTICE REGARDING PREVAILING WAGES

SANDAG's EMP Land Management Grant Program projects are funded with *TransNet* revenues consistent with the *TransNet* Extension Ordinance adopted by the voters in November 2004 (SANDAG Ordinance 04-01). Although SANDAG Ordinance 04-01 does not require payment of prevailing wages, California law may require that public works projects pay prevailing wages for workers.

Applicant acknowledges that SANDAG has strongly encouraged Applicant to seek legal counsel regarding whether the Proposed Project will require applicant to pay prevailing wages and agrees that SANDAG will have no liability for conducting this analysis. Yes No

Applicant acknowledges that if awarded an EMP Land Management Grant, the grant agreement between SANDAG and the grantee requires grantee's compliance with all federal, state and local laws and ordinances applicable to the Agreement. Yes No

REQUIRED STATEMENTS FROM APPLICANT

- Yes No The applicant has read and understands the Sample Grant Agreement (Agreement) and Invoice Template (Attachment 4).
- Yes No If the SANDAG Board of Directors approves the proposed project proposal, the proposed applicant agrees to sign and return the Agreement to SANDAG, without exceptions or amendments, within 45 days of receipt.
- Yes No The applicant agrees to comply with SANDAG's Board Policy No. 035, Competitive Grant Program Procedures, which outlines "Use-it-or-lose-it" project milestone and completion deadlines. Board Policy No. 035 is included in the Agreement, and also is on SANDAG's website at the following link: sandag.org/organization/about/pubs/policy_035.pdf
- Yes No The applicant understands that 10 percent of all invoices will be retained until the completion of the proposed project.
- Yes No The applicant understands that for proposed projects with matching funds, retention will be withheld beyond the 10 percent retention for each invoice submittal that does not meet the proportionate matching funds requirement. These additional matching funds will not be released until proportionate matching funds are reached for the project to-date.
- Yes No The applicant understands that all invoices must be accompanied by written, documented support of the charges for requested reimbursement of grant funds and payment will not be made by SANDAG until all documents are satisfactorily submitted.
- Yes No The applicant understands that invoices and reports must be submitted on a quarterly basis within three weeks after the period covering January 1 to March 31; within three weeks after the period covering April 1 to June 30; within three weeks after the period covering July 1 to September 30; and within three weeks after the period covering October 1 to December 31.
- Yes No The applicant understands that the EMP quarterly report template (to be sent to the grantee after NTP is issued) must be used to document quarterly progress and that invoices with errors will be returned to the grantee for correction prior to being processed by SANDAG staff.
- Yes No The applicant understands that the final invoice must be accompanied by written, documented support of the charges for requested reimbursement of grant funds; a final report (prepared in accordance with the final report template to be sent to grantee after NTP is issued); and all outstanding deliverables in order to receive final payment and have retained funds released.
- Yes No The applicant understands that to be considered eligible for funding, a resolution complying with the requirements of Board Policy No. 035, Section 4.1, must be submitted to SANDAG at least *two weeks* prior to the recommendation by the Regional Planning Committee of the list of prioritized project proposals. SANDAG will provide applicants with advance notice of the Regional Planning Committee's anticipated meeting date.
- Yes No The applicant agrees to submit all project data/information to SANDAG in a format compatible with the regional management database.

I have the authorization to submit this proposal (Grant Application Form and required supplementary materials) on behalf of my organization.

Chris Redfern, Executive Director

Applicant Name/Title (print or type)



01/11/18

Applicant Signature

Date