

TransNet Environmental Mitigation Program (EMP)
Tenth Cycle – October 2021
Attachment 2 - Threat Reduction Stewardship Grant Application

Applicant Name: Otay Water District; Ms. Lisa Coburn-Boyd, Environmental Compliance Specialist

Address: 2554 Sweetwater Springs Boulevard, Spring Valley, CA 91978-2004

Phone: 619-670-2219

Email: lisa.coburn-boyd@otaywater.gov

Name of Property: San Miguel Habitat Management Area

General Location: City of Chula Vista

Jurisdiction: Otay Water District

Total Acres: 240

Estimated Acres Requiring Management: Concentrated management of 10.09 acres (10.04 acres of artificial burrow area and 0.05 acres of illegal access areas) to manage threats for the entire 240-acre HMA.

Owner(s) of Property: Otay Water District

Land manager of property: Merkel & Associates, Inc.

Brief project summary that includes your primary goal and objectives. (200-word max)

The San Miguel Habitat Management Area (HMA) has experienced increased illegal entrance and use of trails found throughout the site. The uptick correlates with the pandemic's onset, which has led people in search of more outdoor recreation opportunities. Mountain bikers and hikers are drawn to the surrounding USFWS refuge trail system that is open to the public. The HMA's perimeter fencing and gate locks are frequently cut to gain illegal entry, causing significant damage and threatening the viability of High Priority SO and SL species and their habitats, including the make-shift use of burrowing owls' artificial burrows as "jumps" by dirt bikes and ATVs.

This project is consistent with the *"Human uses of the Preserve" MSP Goal and "HUMUSE-4" Objective* and is a 2022-2026 Priority Objective for the HMA. The project will reduce threats to the habitat of the following High Priority SO/SL species found within the HMA's Diegan coastal sage scrub and grassland habitats:

- Coastal California gnatcatcher
- Coastal cactus wren
- Migratory and/or wintering burrowing owl
- Otay tarplant
- Variegated dudleya (SS species/ 2022-2026 second priority)

This project will implement a variety of deterrent and education-oriented strategies to reduce threats and prevent disturbance to vulnerable habitat on the HMA.

Quantify expected results

Reduce recreational trespassing into the HMA – This project will reduce the number of recreational trespassers (mountain and motorized dirt bikers, ATV riders and hikers) at five identified illegal access points along the HMA's existing perimeter fencing (see Figure, page 7). The project proposes quantitative monitoring at the five illegal access points through the proposed motion detection camera trap monitoring effort.

Reduce habitat disturbance – This project will reduce disturbance of High Priority SO/SL species habitat throughout the HMA, with particular focus on reducing disturbance at the burrowing owl artificial burrows site within the eastern grasslands area (see Figure). Frequent and substantial habitat disturbance at the burrowing owl artificial burrow area has been regularly documented through existing camera trap efforts performed by the HMA land manager (not part of this proposed grant scope and budget). However, this photo data will be used to determine if there is a reduction in habitat disturbance in this area due to this grant funded project.

Brief description of dedicated staff and/or consultants/contractors that will work on the Project. (200-word max)

Otay Water District (District) is the owner of the HMA. District staff, including the environmental compliance specialist, will oversee the project and team of consultants and vendors to implement the project scope. The District's community

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outreach staff may provide support for implementation of public outreach tasks. The District will prepare grant invoices.

Merkel & Associates, Inc. (M&A) is the current HMA land manager for the District. M&A, a state certified WBE and SBE, is a San Diego-based environmental consulting firm specializing in biological resource and regulatory issues. The firm has extensive experience working with the District and within the HMA, including working with District staff to develop the San Miguel HMA and District’s Capital Improvements Project mitigation-banking program. M&A biologist staff will provide enhanced services to the project beyond the existing maintenance and management contract scope (which includes repetitive fence/gate repair). M&A will support the implementation of the multi-dimensional public outreach campaign, human threat deterrence activities, monitoring, and grant-related reporting.

California Conservation Corps (CCC) is a CBO organization that fosters social equity. CCC will provide staff to support project implementation through the installation of cactus plantings and signage.

Funding Needs Summary

Budget Item	Requested Funding Amount	Description
Personnel Expenses Staff	\$0	Staff time associated with District staff efforts to implement the project scope
Personnel Administrative Expenses	\$0	Staff time associated with grant and project management, including contract oversight
Consultant/Contractor Expenses	\$69,818.80	Consultant/contractor services
Other Direct Expenses	\$8,775.00	Includes all equipment and supplies (gates, locks, cameras, plant material, etc.)
Total	\$78,593.80	

Project Application

Project Purpose

1. The proposed project specifically addresses relevant high-priority Management Strategic Plan (MSP) species and their habitats. The HMA supports many MSP High Priority SO/SL species including Coastal California gnatcatcher (*Polioptila californica californica*), coastal cactus wren (*Campylorhynchus brunneicapillus*), wintering / migratory burrowing owl (*Athene cunicularia*), and Otay tarplant (*Deinandra conjugens*); as well as variegated dudleya (*Dudleya variegata*), a SS species identified as a 2022-2026 second priority. The HMA also supports additional SO/SL sensitive species, however they are not identified as MSP High Priority species under this grant cycle.

2. The proposed project will address an urgent need to eliminate the destructive activities. With increasing frequency over the past 22 months, mountain bikers, hikers with unleashed dogs, ATV users, and motorized dirt bikers have damaged burrowing owl artificial burrows and mounds, created new trails, and expanded existing trails throughout the HMA. The intensity of human disturbance to sensitive habitats occupied by the High Priority SO/SL species requires immediate action to halt the destructive impacts to the HMA’s sensitive habitat. In particular, the HMA burrowing owl artificial burrow site contributes toward regional burrowing owl conservation and may support nesting burrowing owls in the future. For this reason, there is an urgent need to address this significant threat that may preclude the long-term success of burrowing owls in the HMA.

3. Success criteria have been identified and will be monitored and reported. Success of the proposed project is likely, with clear, measurable, proven results that will promote conservation, as discussed below. Success criteria for the proposed project are based on motion detection camera trap monitoring efforts at the five identified illegal access points areas. Methods for tracking successes are fully detailed in the following section, under Task 4 – Monitoring. The project proposes the following success criteria, which will be used to measure conditions over a 14-month monitoring period and at project completion, compared to an established baseline:

Recreational Trespass	20% reduction in number of recreational trespassers by end of month 5
	40% reduction in number of recreational trespassers by end of month 9
	80% reduction in number of recreational trespassers by end of month 14
Disturbance of Burrowing Owl Artificial Mounds	100% reduction in disturbance of artificial burrows caused by recreational trespassers (e.g., ATV/dirt bikes) by month 14

4. Activities necessary to maintain the proposed project after the 18-month grant period have been identified and funding for those activities has been secured. It is anticipated that camera stations and associated signage at identified access points will remain onsite if they are not vandalized and are shown to contribute toward deterring trespassers. The monitoring cameras will not remain active to capture photos but will act as a visual deterrent against illegal entrance and activity on the HMA. It is expected that these remaining camera stations can be periodically monitored to assess their condition (e.g., vandalism) during existing maintenance and management inspections funded under the existing HMA maintenance /management budget. If it is necessary to remove these camera stations in the future, the removal will also be conducted and funded under the existing HMA maintenance /management budget. The existing HMA maintenance and management budget is included in the District’s operating budget, which is funded by water & sewer fees and other miscellaneous income. Current maintenance efforts are expected to suffice for future fence and gate maintenance. The overall need for fence and gate repair is expected to decrease due to this project.

5. The HMA is located within the MSP area in Management Unit 3 (see Figure). The HMA is conserved land located in the City of Chula Vista, east of State Route 125, directly north of the Proctor Valley Road and Hunte Parkway intersection and situated directly adjacent to the USFWS National Wildlife Refuge Lands to the north, west, portions of southwest, as well as northeast. Proposed project activities are concentrated at five identified illegal access points that are generally along the HMA boundary perimeter.

6. The proposed project will provide a co-benefit to CBO Network Communities and foster social equity through the inclusion of California Conservation Corps (CCC) on the project team. CCC staff will work on the preparation and planting of cactus at the five illegal access project areas as well as the installation of enhanced signage.

Scope of Work by Task

The proposed scope of work outlined below will reduce human use threats to fragile habitat caused by illegal trespassing in the HMA.

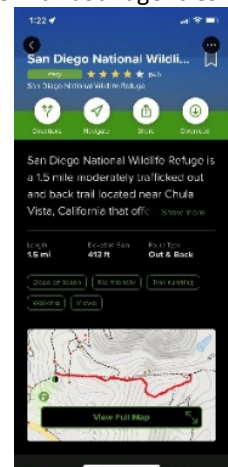
Task 1) Enhanced Public Outreach Campaign

The project includes a suite of diverse outreach and education efforts that will result in increased awareness of the HMA’s importance and vulnerabilities and the redirection of recreational users to alternative public access to eliminate illegal trespassing in the HMA by:

Increased agency coordination – The project will utilize existing relationships with the USFWS (which is a property owner adjacent to the HMA), and SDG&E (which has an easement on the HMA). The District will coordinate with both agencies to enhance communication protocols to reduce illegal access to the HMA. Specific efforts will include development of a reporting system between SDG&E and District staff (i.e., text number) to enable SDG&E maintenance crews to easily report illegal access issues (broken locks/fence breaks, vandalism) observed while on HMA/SDGE easement. Coordination will include a request that USFWS extend its staff refuge patrol to encompass trails leading to the HMA, and that signage is placed on USFWS lands (see signage, below). Both the patrol efforts and enhanced signage aim to head off hikers/bikers when they are still on USFWS lands to divert them away from the HMA.

Trail app removal – Various trail apps (e.g., All Trails, Google Maps, and Trailforks) display trails located within the HMA. The campaign includes an effort to work with the apps’ customer service center to remove all references to HMA trails.

Enforcement flyer production and distribution- The project includes development of an HMA informational flyer to include enforcement language and educational but cautionary messaging about potential encounters with rattlesnakes, ticks, poison oak, and steep rocky terrain within the HMA. Flyers will be distributed to HOAs located adjacent to the HMA’s southern boundary



Trail App - display of trails

and other localized community groups.

Community outreach efforts – The project includes enhanced collaboration with local community groups, mountain biking, and off-road associations via in-person and social outlets such as Facebook and Nextdoor to educate members regarding illegal access, dangers, and habitat preservation efforts in the HMA. The effort includes partnering with local scouting and youth organizations as HMA ambassadors to their community and family. The District will supply content that supplements existing scout stewardship and habitat badges and initiatives.

Use of RSVP Patrol – The District will request that the City of Chula Vista assign its RSVP (Retired Volunteer Service Patrol) to patrol the Mother Miguel trail head located on the adjacent USFWS Refuge during weekends and times of high use in order to educate and redirect recreational traffic away from the HMA.

Task 2) HMA Illegal Entry Deterrence Efforts

The project will implement a variety of deterrence-oriented efforts that will result in reduced illegal entrance to the HMA’s sensitive habitat. Those efforts include the following:

Placement of physical obstacles – The Figure on page 7 of this application identifies five illegal access point locations to the HMA (Western Areas 1a and 1b, Northern Area 2, and Eastern Areas 3a and 3b) at which physical deterrents will be installed to thwart recreational trespassers from cutting the existing fencing and entering the HMA. Strategic placement of cactus plantings to the sides of the identified gates and along adjacent fencing will deter illegal access and prevent future damage to sensitive biological resources within the HMA. These plantings will be watered by hand/water truck during establishment. M&A and CCC will work together to execute this task as identified.

New and upgraded gates and upgraded locks with tamper resistant cases – The District proposes to further secure the HMA perimeter and protect its sensitive biological resources by adding or upgrading gates and tamper resistant locks at four illegal access locations (see Figure). Currently, the gate lock at Western Area 1a is frequently cut, leaving the gate unsecured. There is no functioning gate Western Area 1b, but rather a flimsy section of barbed wire fencing. The existing gate at Eastern Area 3a allows passage through large gaps and underneath the gate. Large sections of the adjoining fencing on both sides of the gate are frequently cut at Eastern Area 3b. The fifth illegal access location (Northern Area 2) is currently just a barbed wire fence). M&A will coordinate with the District to choose the most appropriate and most effective gates and lock mechanisms. The District will purchase the materials from Aztec Fencing. It is estimated that up to two new gates and at least two lock mechanism upgrades will be needed to address trespass issues.

Enhanced motion detection cameras – The project will add new motion detection camera stations consisting of cameras in protective cases that are set on posts and cemented into the ground at all five of the illegal access locations (see Figure). The camera stations will provide two functions: (1) They will deter trespassers from entering at these locations, even when not active, and (2) they will be utilized in the camera trap monitoring efforts described below in Task 4. M&A will prepare and install camera stations at the illegal access areas.

Private security enhancement – The project will increase private security patrols at the illegal access locations, especially in the eastern areas near the burrowing owl artificial burrow site. Patrols will occur twice a month on a weekend morning and/or afternoon when recreational activity is typically the highest.

Task 3) Enhanced Signage

While existing signage regarding illegal trespassing and sensitive biological resources is posted throughout the HMA on perimeter fencing, the messaging has not deterred trespassers. This project includes the design, production, and installation of enhanced signage at new locations with a strengthened message and that incorporates best management practices identified in the USFWS Sign Handbook (<https://www.fws.gov/policy/USFWSignHandbook2019.pdf>).

Enhanced signage will be placed at points offsite near applicable trailheads and within and along the HMA perimeter. Assuming authorization from adjacent property owners is granted, signs installed offsite are intended to divert recreationalists from heading toward HMA boundaries and keep them on USFWS refuge lands and/or other public lands such as the San Mount Miguel Community Park. New signage will also be posted onsite at the HMA illegal access points, warning that trespassers will be recorded at proposed camera stations and subject to penalty. In addition, signage will include educational but cautionary messaging about potential encounters with rattlesnakes, ticks, poison oak, and steep rocky terrain within the HMA. Bilingual or partially bilingual messaging will be included on signage, as will a QR code that connects to the District’s HMA webpages. Those pages will describe the HMA and explain why it is closed to the public.

Task 4) Camera Trap Monitoring

This task includes the use of camera trap stations to monitor illegal entry into the HMA. Monitoring data is used to measure the project’s success (refer to the Success Criteria, #3 in Project Purpose section for further details).

One camera trap station will be installed at each of the five illegal access points. Each camera trap station will consist of one camera within a protective security case securely installed on a post cemented into the ground. Cameras will be programmed to take two photos per trigger with an approximate 2-5 second delay between triggers to effectively detect trespassers. Cameras will detect passing subjects and record the date and time of incident as well as the number of subjects, mode of mobility (foot, bike, ATV), and travel direction.

Baseline Monitoring - Two sampling periods (four weeks each, visited every two weeks) will start after NTP is received and before the project scope of work is implemented. Baseline activities include checking condition of cameras/batteries/downloading photos and prepping cameras for continued monitoring once per week (four camera check visits). Baselines will be established for the two success criteria:

- Recreational Trespass – Number of illegal trespassers detected by camera traps at all five locations
- Disturbance of Burrowing Owl Artificial Burrow Mounds – Number of occurrences of human disturbances caused by ATB/dirt bike/hikers with unleashed dogs captured on existing motion detection cameras at the burrowing owl artificial burrow site.

Proposed Project Monitoring – Three sampling periods (four weeks each) over a 14-month period will involve checking cameras and downloading photos. All three of the sampling periods will be checked once every two weeks for a total of six camera check visits. Sampling periods will be scheduled to attempt to capture seasonal variability in human illegal access and will include spring/early summer and late fall/early winter, presumably the busier months due to favorable weather.

Photo Data Management and Analysis - Photos will be stored and organized in a digital photo database created and managed by M&A. Photo analysis may be limited to a subsample of photos between certain time frames (busiest times) at all sampling points to reduce time spent sorting photos. The photo data will be reviewed, sorted, and analyzed to determine if the proposed project has met the defined project success criteria (see #3, above).

Task 5) Grant Reporting and Invoicing

All required reports and invoicing as required by the grant, including an estimated five quarterly reports and invoices and one final report will be prepared and submitted to SANDAG in a timely manner.

Task 6) Administrative-

The District’s Environmental Compliance Specialist will oversee the project and manage the team of consultants and vendors to ensure implementation of the project work scope and grant compliance.

Exhibit A – Proposed Project Scope of Work

Task #/Name	Task Description	Quantifiable Results/Deliverables
1. Public Outreach & Education Campaign	-Increased agency coordination -Enforcement flyer production and distribution -Community outreach efforts -Trail app removal	-Successful coordination efforts with SDG&E / USFWS. -Production and distribution of 1 flyer -Attendance at 3 or more community meetings -Addition of HMA dedicated page on District website -Removal of references to HMA trails on apps.
2. HMA Illegal Entry Deterrence Efforts	-Placement of physical obstacles -Upgraded Gates/Locks/Cases -Camera station installation (appears as a video surveillance as well) -Private Security Enhancement	-Installation of hundreds of cactus plantings at designated locations -Installation of 2 new gates and at least 2 new locks -Installation of 5 motion detection camera stations -Onsite security presence at least 2 x month on a weekend morning and/or afternoon

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3. Enhanced Site Signage	-Placement of signage at points within and along perimeter of the HMA and offsite near applicable trailheads.	-Installation of up to 7 signs at designated locations.
4. Camera Trap Monitoring	-2-month baseline monitoring-14-month post-implementation of management actions (Tasks 1-4) -Photo data management and analysis	-Camera photo raw data -Photo analysis results to determine if success criteria is met
5. Grant Reporting & invoicing	-Production and submittal of all required reports and invoices.	-Estimated 5 quarterly reports and 5 invoices. One final report.
6. Admin.	-Management of project, consultants, vendors grant compliance	-Implementation of grant project scope and deliverables.

Budget by Task

Exhibit B – Proposed Project Budget (provides a budget for each task in scope of work).

Task No.	Task #Task Name	Grant Request
1.	Public Outreach and Education Campaign	\$2,181.00
2.	HMA Illegal Entry Deterrence Efforts	
	Placement of Physical Obstacles	\$10,916.80
	New and Upgraded Gates and Locks	\$14,857.00
	Enhanced Motion Detection Cameras	\$4,330.00
	Private Security	\$7,320.00
3.	Enhanced Site Signage	\$6,668.00
4.	Camera Trap Monitoring	\$18,394.00
5.	Grant Reporting and invoicing	\$11,415.00
6.	Administrative	\$2,512.00
	Total	\$78,593.80

Project Schedule

Exhibit C – Proposed Project Schedule (Assumes November 2022 NTP)

Task #/Task Name	Proposed Start Date From NTP	Months to Complete	Task End Date
1. Public Outreach & Education Campaign	0 Months	17 Months	03/30/2024
2. HMA Illegal Entry Deterrence Efforts	0 Months	17 Months	03/30/2024
3. Enhanced Site Signage	0 Months	17 Months	03/30/2024
4. Camera Trap Monitoring	1 Month	16 Months	03/30/2024
5. Grant Reporting & invoicing	2 Months	16 Months	04/30/2024
6. Administrative	0 Months	18 Months	04/30/2024

Notice Regarding Prevailing Wages

California law requires that public works projects pay prevailing wages for workers.

Applicant acknowledges that any work that qualifies as a "public work" within the meaning of California Labor Code Section 1720 shall cause Applicant and its subcontractors to comply with the provisions of California Labor Code Sections 1775 et seq, which includes the payment of prevailing wages to all workers performing prevailing wage work.

Yes No

Applicant acknowledges that if Applicant or its subcontractors will engage in the performance of a public work as defined by California Labor Code Sections 1720 et seq. and will utilize persons who are not employees of a public entity, registration and payment of an annual registration fee to the California Department of Industrial Relations (DIR) shall be required of each entity performing the work. This requirement applies to anyone affected by the public works statutes found in the California Labor Code, including but not limited to landscapers, fencers, surveyors, soil testers, dredgers, heavy equipment operators, and inspectors.

Yes No

Applicant acknowledges that if Applicant will award any subcontracts for the performance of a public work:

- Applicant shall notify SANDAG 30 calendar days prior to the award of each subcontract so SANDAG can create a Project Registration Form (aka PWC-100 form) for each subcontract using the DIR online database. Applicant will provide to SANDAG the name, DIR registration number, and contractor's license numbers of each subcontractor so SANDAG can verify, prior to Applicant's award of the subcontract for a public work, that the selected subcontractor is currently licensed and registered with the DIR. If SANDAG finds that the selected subcontractor is not licensed and registered with the DIR, SANDAG will promptly notify Applicant and Applicant will not be permitted to award the subcontract to the selected subcontractor.

Yes No

- Applicant shall notify SANDAG ten business days prior to the subcontractor performing the prevailing wage work so SANDAG can prepare for labor compliance monitoring.

Yes No

- If there are any changes to a subcontractor or lower-tier subcontractor, Applicant will advise SANDAG of these changes as soon as those changes are known to the Applicant.

Yes No

Required Statements from Applicant

Yes No

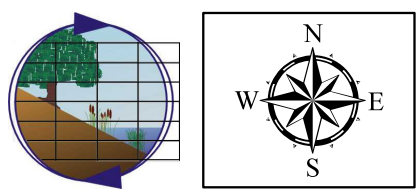
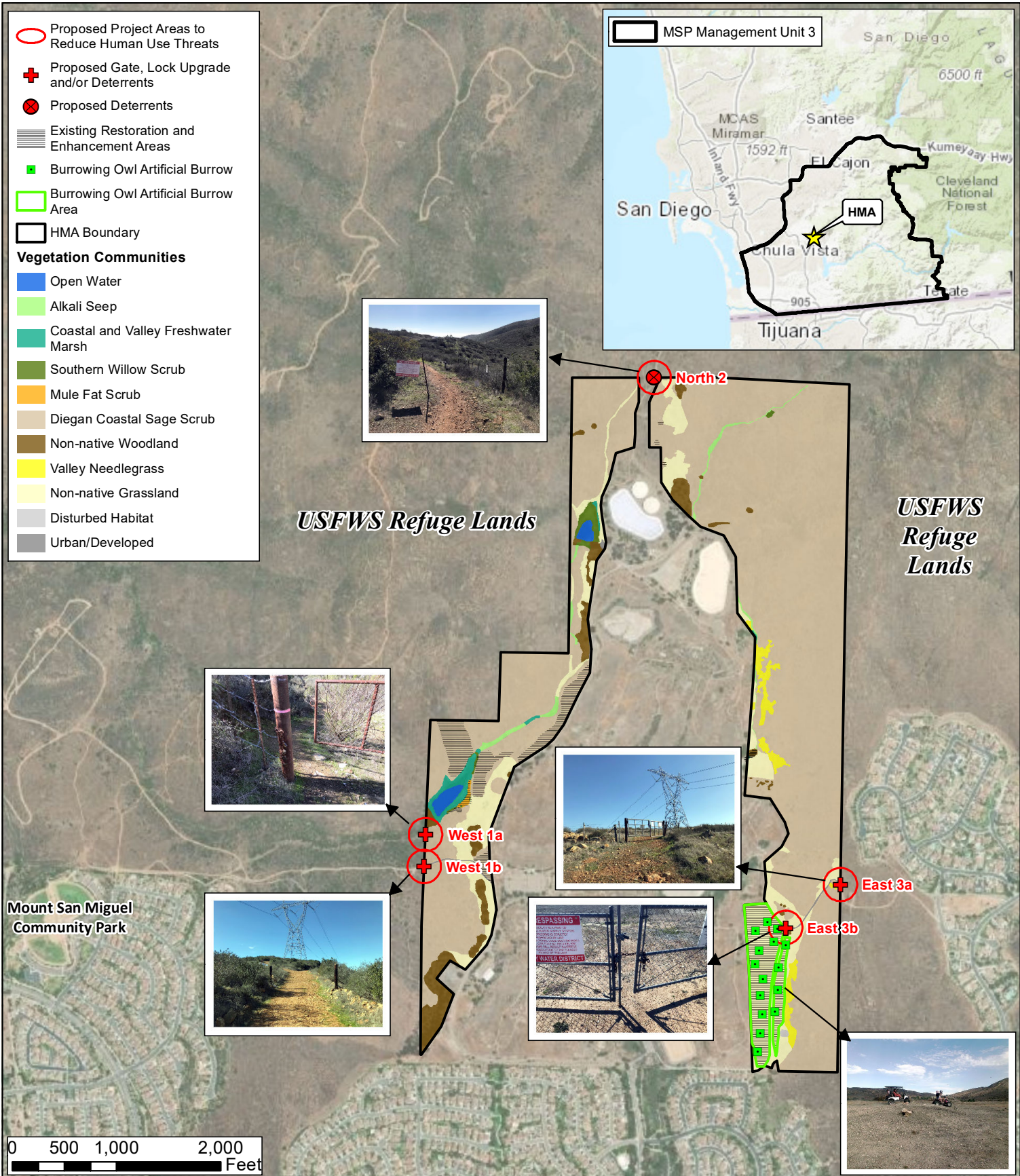
- The applicant has read and understands the Sample Grant Agreement (Agreement) and Invoice Template (Attachment 4).
- If the Board of Directors approves the proposed project application, the applicant agrees to sign and return the Agreement to SANDAG, without exceptions or amendments, within 45 days of receipt.
- 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 available at: sandag.org/organization/about/pubs/policy_035.pdf
- The applicant understands that 10% of all invoiced amounts will be retained until the completion of the proposed project.
- 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.
- The applicant understands that invoices and reports must be submitted on a quarterly basis within three weeks after each period close covering January 1 to March 31; April 1 to June 30; July 1 to September 30; and October 1 to December 31.
- The applicant understands that the EMP quarterly report template (to be sent to the grantee after NTP is issued and can be found at sandag.org/index.asp?classid=17&projectid=447&fuseaction=projects.detail) 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.
- 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 can be found at sandag.org/index.asp?classid=17&projectid=447&fuseaction=projects.detail); and all outstanding deliverables in order to receive final payment and have retained funds released.
- 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 applications. SANDAG will provide applicants with advance notice of the Regional Planning Committee's anticipated meeting date.
- The applicant agrees to submit all project data/information to SANDAG and to upload data and reports to a project page created by the applicant on the SDMMMP web portal in a format consistent with regional management databases.

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

Lisa Coburn-Boyd, Environmental Compliance Specialist

Applicant Name and Title (print or type)

Lisa Coburn-Boyd 1/31/22
Applicant Signature Date



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