

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

Applicant Name:	<u>Conservation Biology Institute</u>
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Phone and Email Address:	<u>623-388-3046; pgordonreedy@consbio.org</u>
Name of Property:	<u>South Crest and Odom Preserves (Greater Crestridge Ecological Reserve Complex)</u>
General Location:	<u>Management Unit 3 of the Management Strategic Planning Area</u>
Jurisdiction:	<u>County of San Diego</u>
Total Acres:	<u>1,089.7 acres within 2 sites (preserves)</u>
Estimated Acres Requiring Management:	<u>13 acres within the 2 sites (preserves)</u>
Owner(s) of Property:	<u>Endangered Habitats Conservancy (EHC)</u>
Land manager(s) of property:	<u>Endangered Habitats Conservancy (EHC)</u>

**Project Title:** South Crest & Odom Preserves, Habitat Enhancement & Species Augmentation

**Brief Project Summary**

We propose to control invasive plants that threaten three Management Strategic Plan (MSP) species and their habitats and increase wildfire risk to these resources, and augment an MSP occurrence through seed introduction. Work will take place on the South Crest and Odom preserves within the Greater Crestridge Ecological Reserve Complex (GCER complex). We will use Best Management Practices (BMPs) developed in the *Brachypodium* control and South County grasslands projects to (1) treat previously untreated *Brachypodium*-infested areas on South Crest and Odom that currently support *Dehesa nolina*, variegated dudleya, and native grassland and coastal sage scrub habitats, (2) enhance previously occupied San Diego thornmint habitat on Odom through dethatching and invasive plant control, and (3) introduce thornmint seed into enhanced habitat. We will partner with the land owner/manager, the Endangered Habitats Conservancy (EHC). A qualified subcontractor will conduct dethatching and invasive treatments. A qualified nursery (e.g., the San Diego Zoo) will bulk San Diego thornmint seed. We will treat a total of 13 acres of habitat, monitor treatment and outplanting sites semi-quantitatively and qualitatively, and recommend post-treatment management and maintenance actions. Management actions will benefit other MSP species indirectly, including California gnatcatcher, southern mule deer, and Parry's tetracoccus, among others.

<p><b>Expected Results</b></p> <ul style="list-style-type: none"> <li>• Treat <b>12</b> acres of previously untreated, <i>Brachypodium</i>-infested habitat that supports MSP species on South Crest and Odom, using treatment methods developed in the <i>Brachypodium</i> control project, phases I and II.</li> <li>• Enhance <b>1</b> acre of San Diego thornmint habitat on Odom, using treatment methods developed in the <i>Brachypodium</i> control and South County grasslands projects.</li> <li>• Collect San Diego thornmint seed from the South Crest occurrence, bulk seed in a nursery setting, and outplant seed into enhanced habitat.</li> <li>• Reduce invasive plants (fine fuel) and wildfire risk to benefit two SO species (San Diego thornmint, <i>Dehesa nolina</i>) and one SS species (variegated dudleya), as well as native grassland and coastal sage scrub habitat on South Crest and Odom.</li> <li>• Monitor treatment and augmentation areas using semi-quantitative and qualitative methods, and use results to manage treatment areas adaptively.</li> <li>• Provide quarterly reports and a final report to SANDAG.</li> <li>• Provide all spatial and monitoring data to SANDAG and SDMMP.</li> </ul>
<p><b>Dedicated Staff and/or Consultants</b></p> <p>CBI staff includes biologists Patricia Gordon-Reedy (Project Manager), Jessie Vinje, and Spring Strahm, GIS technicians/analysts, and administrative staff. A qualified restoration contractor(s) will conduct invasive plant control and habitat restoration on South Crest and Odom. CBI and EHC will outplant native seed into restored habitat on Odom. The San Diego Zoo or another qualified nursery will bulk seed for outplanting.</p>

**Funding Needs Summary**

Please indicate how much funding is being requested from SANDAG and any matching funding proposed.

Budget Item	Requested Funding Amount	Proposed Matching Funds*	Description
Personnel Expenses Staff	\$52,887	\$0	Includes staff time for non-administrative work on the project
Personnel Administrative Expenses	\$---	\$0	Includes all staff time to administer the contract
Consultant Expenses	\$104,674	\$0	Includes all costs for consultant services
Other Direct Expenses	\$3,229	\$0	Includes all equipment, supplies, mileage, etc.
Indirect Costs*	\$8,991	\$0	All indirect charges (e.g., overhead) on the project, if any.
<b>Totals</b>	<b>\$169,781</b>	<b>\$0</b>	

\*See attachment for Indirect Cost Allocation Methodology.

Are there matching funds available?  Yes  No

We are not including matching funds. However, EHC will assist with monitoring, management, and other field tasks, including subcontractor coordination, through yearly budgets.

## PROJECT PROPOSAL

### A. Project Purpose

#### 1. Proposed Management Activities

*Proposed Management.* We propose to enhance MSP species and habitats on the South Crest and Odom preserves, and to augment San Diego thornmint in enhanced habitat on the Odom Preserve. The project will target invasive grasses (particularly, *Brachypodium distachyon*) and forbs where they threaten the persistence of MSP species and sensitive habitats and increase the risk to these resources from wildfire. Removal of nonnative grasses and thatch will reduce fine fuels on preserves with high fire frequency and in habitat occupied by MSP species. Augmentation will improve species resiliency by re-introducing San Diego thornmint into previously occupied, enhanced habitat. Proposed management actions fall under 2 2017 priority MSP objectives: (1) Routine Management (identified during Inspect and Manage [IMG] rare plant monitoring and rapid assessment surveys for the GCER complex Framework Resource Management Plan (F-RMP]) and (2) Fire Management. A third objective (Seed Collection/Bulking) is a 2018-2019 objective in the MSP for San Diego thornmint and a preserve-level objective in the GCER complex F-RMP. We believe it is warranted at this time based on available data and previous management actions. We propose two discrete management tasks that are prioritized as follows:

- *Task 1.* *Brachypodium* control to enhance MSP species and habitats (Task 1a, South Crest; Task 1b, Odom)
- *Task 2.* San Diego thornmint habitat and species enhancement (Task 2a, habitat enhancement; Task 2b, species augmentation)

*Current or Past Management.* We successfully controlled *Brachypodium* and other nonnative grasses and forbs on South Crest (10 acres) and the Crestridge Ecological Reserve (CER; 10 acres) as part of the *Brachypodium* control project. EHC is currently managing and maintaining previously treated areas. This project proposes to extend treatments to adjacent, untreated areas on South Crest and Odom that support MSP species; EHC would manage/maintain treated habitat upon project completion.

*Supporting Data.* We based proposed management actions on several years of invasive and rare plant surveys, mapping, and monitoring data, including:

- 2011 invasive plant mapping on South Crest and CER (SANDAG EMP grant 5001586)
- 2015-2017 invasive plant mapping on South Crest and Odom (GCER F-RMP)
- Dehesa nolina and variegated dudleya project (SANDAG EMP grant 5001763)
- 2017 revised *Brachypodium* mapping on South Crest, Odom, and CER (SANDAG EMP grant 5004735)
- 2011 MSP rare plant surveys and mapping on South Crest (SANDAG EMP grant 5001586)
- 2014-2017 MSP IMG rare plant monitoring on South Crest and Odom

We developed proposed management actions using results from regional studies, including the *Brachypodium* control project, South County grasslands project, Dehesa nolina and variegated dudleya project, 2014-2018 MSP Rare Plant IMG monitoring project, and CBI's current soil study and the related USGS/SDMMP climate change modeling for Dehesa nolina and San Diego thornmint (report in prep.).

We submitted all invasive plant mapping, rare plant mapping, and IMG rare plant data to the San Diego Management and Monitoring Program (SDMMP). REC Consultants, Inc. mapped San Diego thornmint on Odom in 2004. Refer to the attached map for the 2004 San Diego thornmint occurrence, per the California Natural Diversity Database (Element Occurrence 72). Rapid assessment surveys for the GCER F-RMP in 2016 and 2017 verified that invasive grasses and forbs dominate habitat at this location. Additionally, CBI has surveyed the 2004 thornmint site since 2011 and has not located any plants.

*Fire Management Actions.* We propose to manage the threat of fire to MSP species and habitats through fuel reduction as part of invasive plant control and habitat enhancement activities (e.g., dethatching, herbicide treatment). The GCER F-RMP identifies this need for South Crest and Odom; both preserves have experienced high fire frequency. The proposed action is part of a comprehensive fire strategy that includes regional management of ignition hotspots (e.g., Dehesa Road). The GCER F-RMP details elements of a fire management plan for the complex.

**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?**

MSP species and habitats that will benefit directly from the proposed management activities include San Diego thornmint (**SO**; native grassland, coastal sage scrub), Dehesa nolina (**SO**; native grassland, coastal sage scrub), and variegated dudleya (**SS**; native grassland, coastal sage scrub).

Additional MSP species present or previously detected on South Crest and Odom that may benefit indirectly from habitat enhancement and fuel reduction include Quino checkerspot butterfly (**SL**), California gnatcatcher (**VF**), northern harrier (**SO**), southern mule deer (**SS**), and Parry's tetracoccus (**SS**).

We propose to implement the following 2017 priority MSP objectives and actions:

- Fire management (IMP-FMGT)/Fuel Reduction: San Diego thornmint (**ACAILI-1**)
- Routine management (IMP-IMG)/Invasive Plant Control: San Diego thornmint (**ACAILI-3**), Dehesa nolina (**NOLINT-2**), variegated dudleya (**DUDVAR-2**)

In addition, we propose to augment San Diego thornmint through seed collection, bulking, and outplanting in enhanced habitat on Odom. This effort will be based on recommendations developed in 2018 under objective ACAILI-9 and will contribute to ACAILI-10. We believe this action is warranted to improve the resilience of the South Crest-Odom occurrence, particularly in light of recent climate change modeling. Results from the USGS genetics study and CBI soil study will inform this effort.

MSP species occurrences that will benefit directly from proposed management include San Diego thornmint on Odom (**ACIL\_3SOCR016**), Dehesa nolina on South Crest and Odom (**NOIN\_3SOCR003**); and variegated dudleya on South Crest and Odom (**DUVA\_3SKFL009**).

### 3. In which Management Unit is the project located?

Proposed management will occur on conserved lands (South Crest and Odom preserves) in Management Unit (MU) 3 of the Management Strategic Planning Area (MSPA). Figure 1 shows the location of South Crest and Odom in relation to other conserved lands in MU 3.

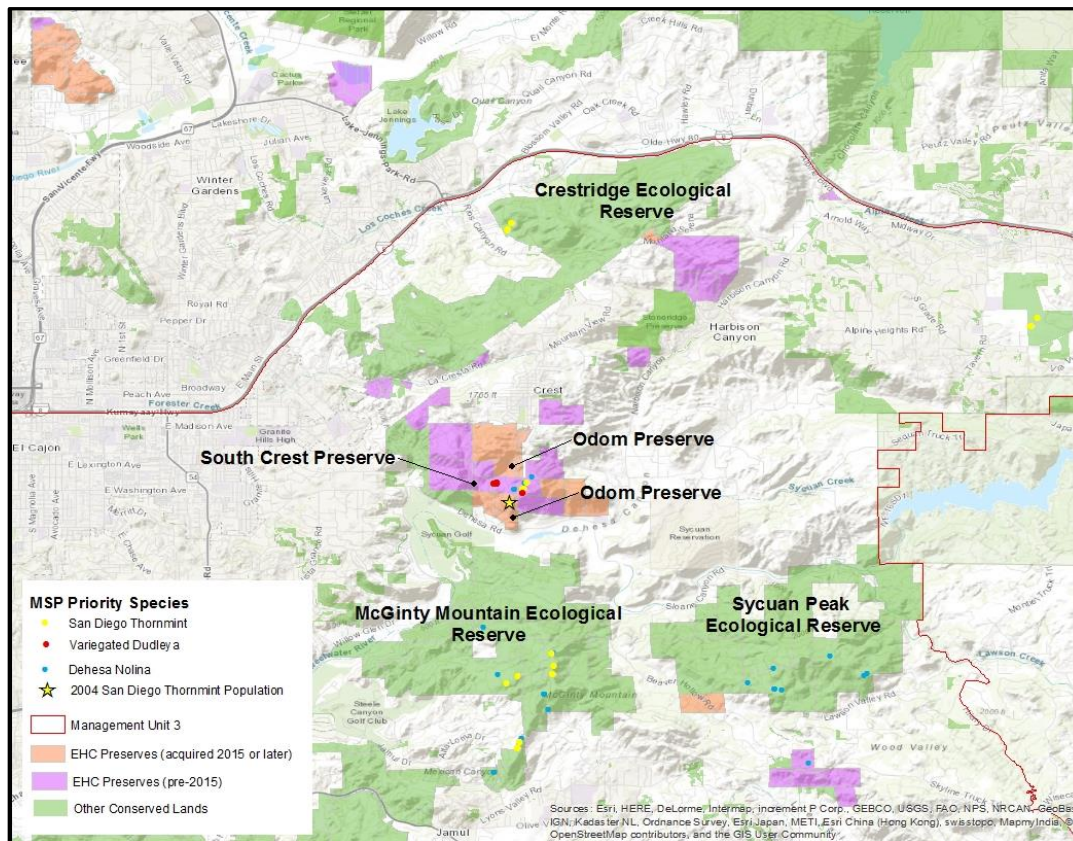


Figure 1. Project Location.

### 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.

Primary threats and stressors include invasive species (*Brachypodium distachyon* and other nonnative grasses and forbs) and altered fire regimes. Invasive annual grasses, in particular, out-compete native species, reduce native species diversity, increase fire risk, and potentially alter soil ecology.

High fire frequency is an issue on both preserves where we have proposed treatment. Reducing fine fuels will protect MSP species and habitats, including those restored or enhanced under previous EMP grants. As an example, pre- and post-2003 Cedar fire data indicate that all Dehesa nolina and San Diego thornmint plant losses from fire on South Crest and Odom occurred in areas dominated by nonnative grasses, while plants in uninvaded areas recovered well after fire.

Recent climate change modeling by SDMMP/USGS (Kris Preston, Emily Perkins) as part of CBI’s soil study indicates that enhancing population resilience will be an important management strategy for both San Diego thornmint and Dehesa nolina across their ranges.

## 5. Describe the management techniques proposed.

Proposed management techniques to control invasive plants include dethatching and herbicide application, using herbicide delivery strategies developed and tested successfully in the *Brachypodium* control and South County grasslands projects. These projects demonstrated that we could reliably reduce above-ground nonnative grass cover from over 70% to <10% cover in 2 years, but that reducing the invasive grass soil seed bank could take up to 5 years to prevent a significant rebound effect. Herbicide treatments will include the grass-specific herbicide Fusilade II to control *Brachypodium* and other nonnative grasses and glyphosate to control nonnative forbs. We will spot-treat (versus broadcast-spray) nonnative forbs to minimize impacts to native species. Although we have not observed adverse effects to native plants (including native, perennial grasses, geophytes, or shrubs) from Fusilade II application, we will not spray herbicide over target MSP species.

The San Diego Zoo, Institute for Conservation Research (ICR) is currently collecting San Diego thornmint seed for City of San Diego seed bulking and out-planting projects. Collecting San Diego thornmint seed and germinating the species is straightforward (S. Anderson, pers. comm.) and several individuals (Mike Kelly, Jessie Vinje) and San Diego County nurseries (i.e., Recon Native Plants) have also successfully grown plants and produced San Diego thornmint seed over the past decade. AECOM and Recon, Inc. have completed successful SANDAG-funded seed bulking and out-planting projects over the past several years. We would follow previously established seed collection, bulking, and outplanting techniques used in current and past San Diego County projects.

## 6. What strategic approach will be used to ensure the successful, long-term outcome of the proposed project? Which adjacent conserved lands will not be included and why?

Our approach to management of invasive plants and MSP species on South Crest and Odom has been sequential (i.e., resource mapping, threats assessments, conceptual models, preserve-level goals and objectives, experimental control and restoration studies), and collaborative with SDMMP and other land managers. For the proposed project, we will build off earlier efforts by using BMPs and other study results to ensure success.

- For *Brachypodium* control on South Crest and Odom, we will treat areas that currently support MSP species and that are upslope or adjacent to previously treated areas. We will also treat sites sufficiently to reduce the weed soil seedbank to a manageable level. Proposed treatment areas include an estimated **12** acres of *Brachypodium*-infested habitat that support MSP species.
- For San Diego thornmint habitat enhancement on Odom, we will use dethatching and invasive plant control techniques developed or refined in the *Brachypodium* control and South County grasslands projects to restore an estimated **1** acre of previously occupied habitat.
- For San Diego thornmint augmentation on Odom, we will collect seed following standard seed collection guidelines and will use results from the CBI soils study to identify appropriate microsites for outplanting seed in enhanced habitat. The San Diego Zoo, ICR (or another approved nursery) will bulk seed using current techniques and we will outplant seed using methods that were successful for the Recon and AECOM augmentation projects.

We do not propose treatment on the adjacent, EHC-owned Michelson Preserve or other areas of South Crest and Odom with invasive species but few or no MSP species. EHC will treat those areas as part of a long-term, invasive plant management program.

**7. What are the goals and objectives for the proposed project? Criteria/metrics to measure success? Quantitative monitoring data to evaluate success? Who will collect monitoring data? Qualifications?**

Project goals are to control invasive plants and reduce fine fuels in sensitive habitat occupied or previously occupied by MSP species, and to augment an MSP occurrence. Proposed actions will reduce wildfire risk to sensitive biological resources and increase native species richness and long-term resiliency of MSP species.

Objectives include (1) expand *Brachypodium* treatment in untreated areas occupied by *Dehesa nolina*, variegated dudleya, native grassland, and coastal sage scrub using proven control methods, (2) enhance previously occupied San Diego thornmint habitat through dethatching and invasive plant control, and (3) augment San Diego thornmint in enhanced habitat. Invasive plant control will reduce fire risk to MSP species and habitats from fine fuels. Previous work showed that reducing *Brachypodium* or other nonnative grasses and forbs to  $\leq 10\%$  cover is achievable within 2-3 years, but additional treatment reduces the weed soil seed bank to manageable levels and prevents a rebound effect. Thus, we propose 3 years of intensive treatments in both *Brachypodium*-infested habitat and the thornmint enhancement area, followed by 2 years of selected treatments, as necessary. We will collect San Diego thornmint seed from no more than 5% of the existing South Crest thornmint population, contract grow (bulk) this seed in a nursery setting, and outplant seed after 3 years of intensive invasive control treatments.

We propose semi-quantitative and qualitative monitoring of all treatment areas and of outplanting success, following methods refined and tested in the *Brachypodium* control and South County grasslands projects. We will conduct semi-quantitative monitoring prior to treatment, 3 years into the project, and 5 years into the project, and qualitative monitoring annually. The objective of monitoring will be to document project progress and identify the need for adaptive management, rather than test treatment efficacy. For semi-quantitative monitoring, we will estimate cover (including bare ground and litter) and species richness in circular plots within treatment areas, and count or estimate numbers of augmented species. For qualitative monitoring, we will conduct photomonitoring at all treatment areas.

CBI biologists Patricia Gordon-Reedy, Jessie Vinje, and Spring Strahm will collect monitoring data. All have worked extensively on South Crest and Odom, the projects listed in #9, below, and IMG rare plant monitoring. Spring Strahm has a background in statistical design and analysis, and will analyze data.

**8. How will the applicant compile, manage, and transfer the data collected? Who will prepare reports?**

CBI will be the central repository for all data collected. CBI biologists will compile data, prepare reports, and submit all data to SANDAG and SDMMMP at the end of the project. CBI uses Data Basin ([www.databasin.org](http://www.databasin.org)), a website created and maintained by CBI, to store and share spatial datasets with land managers. CBI will use activity-specific data forms for monitoring site treatments and will work with SDMMMP to develop standardized data collection forms, if necessary.

Patricia Gordon-Reedy will prepare quarterly reports, as well as final reports with staff input from Jessie Vinje, Spring Strahm, and subcontractors. Jessie Vinje and Spring Strahm will be responsible for compiling and transferring the data to SANDAG.

**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?**

The proposed project has not received TransNet EMP funds previously; however, it does leverage work done with Transnet EMP funds and other grant funding, including:

- EMP grant 5001586: Covered and Invasive Species Management: Crestridge Ecological Reserve and South Crest properties
- EMP grant 5001763: Dehesa nolina and variegated dudleya
- EMP grants 5001965 and 5004735: *Brachypodium* control phases I and II
- USFWS Partners for Fish and Wildlife Program grant (invasives control on South Crest)
- Natural Resources Conservation Service EQUIP grant (invasives control on South Crest)
- South County grasslands project (SANDAG funding)
- CBI Soils project (CDFW Local Assistance Grant [LAG] funding)

With prior funding, we mapped invasive and rare plants, tested *Brachypodium* control techniques and monitoring methods, treated a total of 20 acres of *Brachypodium*-infested habitat on South Crest (10 acres) and CER (10 acres), collected seed and bulked native (non-rare) species for reintroduction into restored habitat, augmented Dehesa nolina and variegated dudleya populations on South Crest, and refined our understanding of soils characteristics for San Diego thornmint and Dehesa nolina.

We will use herbicide control methods developed in the *Brachypodium* control and South County grasslands projects. We will use monitoring methods developed and tested in the *Brachypodium* control and South County grasslands projects. We will use species bulking and outplanting methods used by other land managers for San Diego thornmint augmentation.

Grant funding would allow for short-term, intensive treatment of high priority areas that exceed routine management (and the annual budget) of the land manager. Previous efforts on South Crest were part of management experiments and thus, restricted in scope. We propose to apply the most successful techniques from those experiments to the proposed project. As with previous efforts, EHC would take over long-term management and maintenance of all treated areas upon project completion. Areas proposed for treatment on South Crest and Odom support high biodiversity and a number of MSP species, including one of the three largest populations of Dehesa nolina throughout its range and one of the easternmost populations of variegated dudleya. These preserves occupy an important position between conserved lands to the south (e.g, McGinty Mountain and Sycuan Peak Ecological Reserves) and north (e.g., Crestridge Ecological Reserve and Cleveland National Forest).

**10. Is the proposed activity being done on land that was previously set aside as mitigation?**

The proposed activity is not being done on land previously set aside as mitigation.

**B. Scope of Work by Task**

**Exhibit A – Proposed Project Scope of Work**

<b>Task No.</b>	<b>Task Name</b>	<b>Task Description</b>	<b>Quantifiable Results/Deliverables</b>
<b>1 Brachypodium Control</b>			
1a	South Crest	Control <i>Brachypodium</i> and other nonnative grasses and forbs with herbicide in habitat that supports MSP species. Task 1a includes 3 years of intensive treatments and an additional 2 years of selected treatments, as necessary.	<ul style="list-style-type: none"> <li>- Invasives control on 6 acres of habitat.</li> <li>- Estimates of cover and species richness in treatment areas (pre-treatment, year 3, year 5).</li> <li>- Annual photodocumentation.</li> <li>- Monitoring data (see Task 4).</li> </ul>
1b	Odom	See above	<ul style="list-style-type: none"> <li>- Invasives control on 6 acres of habitat.</li> <li>- Estimates of cover and species richness in treatment areas (pre-treatment, year 3, year 5).</li> <li>- Annual photodocumentation.</li> <li>- Monitoring data (see Task 4).</li> </ul>
<b>2 San Diego Thornmint Enhancement</b>			
2a	Habitat Enhancement	Enhance previously occupied habitat for San Diego thornmint through dethatching and herbicide application. Task2a includes 3 years of intensive treatments and an additional 2 years of selected treatments, as necessary.	<ul style="list-style-type: none"> <li>- Dethatching and invasives control on 1 acre of habitat.</li> <li>- Estimates of cover and species richness in treatment areas (pre-treatment, after 3 years of treatment, and after 5 years of treatment).</li> <li>- Annual photodocumentation.</li> <li>- Monitoring data (see Task 4).</li> </ul>
2b	Species Augmentation	Collect San Diego thornmint seed from South Crest. Bulk at an approved nursery and outplant into restored habitat.	<ul style="list-style-type: none"> <li>- Collect no more than 5% of seed from existing population, using established seed collecting protocols.</li> <li>- Bulk seed at an approved nursery.</li> <li>- Sample soil to identify suitable microsites for outplanting.</li> <li>- Outplant bulked seed into restored habitat.</li> <li>- Monitoring data (see Task 4)</li> </ul>
<b>3 Quarterly Reporting</b>			
3	Quarterly Reports	Prepare quarterly reports to document project progress.	<ul style="list-style-type: none"> <li>- Quarterly reports for Tasks 1-2.</li> <li>- Task-specific deliverables (as appropriate).</li> </ul>
<b>4 Final Report</b>			
4	Final Report	Prepare final report(s) for Tasks 1-3, including methods, results, and recommendations for future monitoring/management. CBI will analyze data and submit data to SANDAG & SDMMP	<ul style="list-style-type: none"> <li>- Final report(s) for Tasks 1-2. Report sections will be prepared during implementation where feasible.</li> <li>- Monitoring and treatment data (spreadsheets, shapefiles, photodocumentation, herbicide logs)</li> </ul>

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

Task No.	Task Name	Year 1 Grant Request	Year 1 Matching Funds <sup>1</sup>	Year 2 Grant Request	Year 2 Matching Funds <sup>1</sup>	Year 3 Grant Request	Year 3 Matching Funds <sup>1</sup>	Year 4 Grant Request	Year 4 Matching Funds <sup>1</sup>	Year 5 Grant Request	Year 5 Matching Funds <sup>1</sup>	Total Grant Request	Total Matching Funds	Total Project Cost
1a	<i>Brachypodium</i> Control, South Crest	\$9,996	\$0	\$8,146	\$0	\$9,655	\$0	\$11,334	\$0	\$13,016	\$0	\$52,147	\$0	\$52,147
1b	<i>Brachypodium</i> Control, Odom	\$9,858	\$0	\$8,117	\$0	\$9,627	\$	\$11,308	\$0	\$12,989	\$0	\$51,899	\$0	\$51,899
2a	San Diego Thornmint, Habitat Enhancement	\$4,955	\$0	\$3,313	\$0	\$4,752	\$0	\$4,192	\$0	\$5,096	\$0	\$22,308	\$0	\$22,308
2b	San Diego Thornmint, Species Augmentation	\$13,970	\$0	\$1,638	\$0	\$220	\$0	\$4,097	\$0	\$1,201	\$0	\$21,126	\$0	\$21,126
3	Quarterly Reporting	\$1,550	\$0	\$1,284	\$0	\$1,322	\$0	\$1,362	\$0	\$1,052	\$0	\$6,570	\$0	\$6,570
4	Final Reports	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,739	\$0	\$6,739	\$0	\$6,739
<b>Sub Total</b>		<b>\$40,329</b>	<b>\$0</b>	<b>\$22,498</b>	<b>\$0</b>	<b>\$25,576</b>	<b>\$0</b>	<b>\$32,293</b>	<b>\$0</b>	<b>\$40,093</b>	<b>\$0</b>	<b>\$160,789</b>	<b>\$0</b>	<b>\$160,789</b>
<b>Indirect Cost (17%)<sup>1</sup></b>		<b>\$2,249</b>	<b>\$0</b>	<b>\$1,048</b>	<b>\$0</b>	<b>\$1,499</b>	<b>\$0</b>	<b>\$1,353</b>	<b>\$0</b>	<b>\$2,843</b>	<b>\$0</b>	<b>\$8,992</b>	<b>\$0</b>	<b>\$8,992</b>
<b>TOTAL</b>		<b>\$42,578</b>	<b>\$0</b>	<b>\$23,546</b>	<b>\$0</b>	<b>\$27,075</b>	<b>\$0</b>	<b>\$33,646</b>	<b>\$0</b>	<b>\$42,936</b>	<b>\$0</b>	<b>\$169,781</b>	<b>\$0</b>	<b>\$169,781</b>
<b>PERCENTAGE</b>		<b>25.08%</b>	<b>0%</b>	<b>13.87%</b>	<b>0%</b>	<b>15.95%</b>	<b>0%</b>	<b>19.82%</b>	<b>0%</b>	<b>25.29%</b>	<b>0%</b>	<b>100%</b>	<b>0%</b>	<b>%</b>

<sup>1</sup> Our federal Negotiated Indirect Cost Rate Agreement (NICRA) documents our cost accounting methodology and provides the combined results of General Direct Overhead, Facility Overhead, and Indirect Cost Overhead. These are combined for a total federal rate of 60.18% applied to salaries and wages (Attachment A). The Indirect Cost portion is 17% applied to salaries and wages.

**D. Project Schedule**

**Exhibit C - Proposed Project Schedule**  
(Assumes Fall 2018 Notice to Proceed [NTP])

Task No.	Task Name	Proposed Start Date	Months Needed to Complete Task	Task End Date
1a	<i>Brachypodium</i> Control, South Crest	"3" Months from NTP	"57" Months	06/30/2023
1b	<i>Brachypodium</i> Control, Odom	"3" Months from NTP	"57" Months	06/30/2023
2a	San Diego Thornmint, Habitat Enhancement	"3" Months from NTP	"57" Months	06/30/2023
2b	San Diego Thornmint, Species Augmentation	"6" Months from NTP	"54" Months	6/30/2023
3	Quarterly Reporting	"3" Months from NTP	"57" Months	09/30/2023
4	Final Report	"36" Months from NTP	"24" Months	09/30/2023

Project start delays beyond 3-4 months could result in a one-year delay in invasive plant treatment (Tasks 1a, 1b, 2a). We have allowed a 2-3 year period for seed collection to accommodate potential drought and low seed production; thus, we do not anticipate project delays for Task 2b.

**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](http://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.**

Pamela A. Frost, M.S., Vice President & Chief Operations Officer

**Applicant Name/Title** (print or type)

*Pamela A. Frost*

01/11/18

**Applicant Signature**

**Date**