

## Species and Habitat Recovery Grant Application

Applicant Name: Earth Discovery Institute  
Address: 120 North Park Dr., El Cajon, CA 92021  
Phone: 619-318-2432  
Email: christine@earthdiscovery.org  
Name of Property: Crestridge Ecological Reserve  
General Location: 1171 Horsemill Road, El Cajon  
Jurisdiction: County of San Diego  
Total Acres: 2,690  
Estimated Acres Requiring Management: 5.0  
Owner(s) of Property: California Department of Fish and Wildlife  
Land manager(s) of property (include name[s]): Endangered Habitats Conservancy, Chris Manzuk

### Project Name: Harbison's Dun Skipper Habitat Enhancement

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

The goal of the proposed project is to aid the recovery of the Harbison's dun skipper (*Euphyes vestris harbisoni*) with the objective of enhancing 5.0 acres of riparian oak woodland habitat that supports an existing small population, a high priority management action specified in the Harbison's Dun Skipper Conservation and Management Plan (Marschalek and Deutschman 2018). Enhancement will occur along two drainages at the Crestridge Ecological Reserve, where both adult and pupae were observed during spring 2021 surveys (Marschalek 2021), and will include planting San Diego sedge (*Carex spissa*), the Harbison's dun skipper's host plant, as well as various species known to provide nectar for adult skippers (Marschalek 2018). To ensure that only local San Diego sedge stock is used for enhancement purposes, seed will be collected from the project site in the summer of 2022 (i.e., before grant term) and given to Native West Nursery for propagation as soon as the Notice to Proceed is received. If no seed is produced at Crestridge this summer, then the California Botanic Garden has agreed to donate 300 seeds that were collected within the same ecoregion as Crestridge, approximately 25 miles from the project site, just west of Campo.

**Quantify expected results (add bullets as necessary)**

- Enhancement of approximately 5.0 acres of oak woodland habitat for the benefit of Harbison's dun skipper, monarch butterfly (*Danaus plexippus*), and other pollinator species native to San Diego County.
- Engagement of at least 12 volunteers to assist with the habitat enhancement activities, including plant installation and site maintenance.
- Final report.

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

- Subcontractor, Native West Nursery, is a local wholesale nursery that specializes in custom seed collection and growing species native to the western United States, especially for habitat restoration.
- Endangered Habitats Conservancy Senior Land Manager, Chris Manzuk, has worked for the Conservancy for 6 years. Mr. Manzuk is responsible for managing 16 Reserves (10,000 acres) throughout San Diego County.
- Earth Discovery Institute (EDI) Conservation Director, Christine Beck, retired from the California Department of Fish and Wildlife in 2020 after working in the Landscape Conservation Planning program for 12 years. She has extensive knowledge of the Multiple Species Conservation Program.
- EDI Executive Director, Sarah Maisonneuve, is a PhD Candidate in Ecology with more than a decade of experience establishing and managing ecological research and conservation projects around the globe.
- EDI Outreach Coordinator, Seekey Cacciatore, has worked as an EDI environmental educator for 9 years and as the Outreach Coordinator for 6 months. She has a Master's of Science in Environmental Science from Johns Hopkins University.

## Funding Needs Summary

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

Budget Item	Requested Funding Amount	Description
Personnel Expenses Staff	\$23,350	EDI staff time for site preparation, enhancement and maintenance activities
Personnel Administrative Expenses	\$12,180	EDI staff time to administer the contract and prepare final report
Consultant/Contractor Expenses	\$ 5,000	Native West to propagate San Diego sedge
Other Direct Expenses	\$ 1,200	Purchase nectar plants in 1-gallon pots
Indirect Expenses @10%	\$ 4,053	
<b>Totals</b>	<b>\$45,783</b>	

*\*if applicable*

**Are there matching fund available?**       **Yes**       **No**

**If yes, how are the matching funds assured? (100-word maximum)**

Total in-kind match = **\$14,036**

The Endangered Habitats Conservancy will provide **\$5,760** of in-kind salary match for a Senior Land Manager (48 hours @ \$120/hour) to assist with site selection, preparation, and maintenance (see attached EHC letter of support).

EDI will enlist volunteers to help with site preparation, installation of plants, and long-term care of the enhancement areas. Volunteer in-kind match (290 hours @ \$28.54/hour) = **\$8,276**

## Project Application

### Project Purpose

The Earth Discovery Institute, in cooperation with the Endangered Habitats Conservancy, proposes to enhance approximately 5.0 acres of occupied Harbison's dun skipper habitat (MSP Rank SL) at the Crestridge Ecological Reserve (Figure 1). The Harbison's Dun Skipper Conservation and Management Plan states that enhancement of occupied habitat is a high priority restoration action (Marschalek and Deutschman 2018). Enhancement of occupied habitat has also been identified as a 2022 management priority in the MSP Roadmap Transnet Management Priorities 2022-2026 document (SDMMP 2021).

Harbison's dun skipper is a rare and declining species that occurs in the foothills of the northern and southern parts of San Diego County, extreme western Riverside County, and southern Orange County (Marschalek et al. 2019, Marschalek 2021, SDMMP 2017). Its preferred habitat includes chaparral and riparian areas that have narrow canyons or drainages, and oak woodland that has San Diego sedge in the understory (SDMMP 2017). Harbison's dun skipper is listed as a Category SL Species in the MSP "due to a high risk of loss from Conserved Lands in the MSPA (SDMMP 2017)." The high risk of loss is "due to the small number of existing occurrences, high annual fluctuation in occurrence sizes, low rate of dispersal, and high risk of threat". Threats to the species include habitat loss and fragmentation (Faulkner and Klein 2012), which can lead to reduced dispersal and gene flow. Additional threats include poor water quality, wildfires, invasive plants, drought, the goldspotted oak borer, and grazing (Marschalek and Deutschman 2015).

The Crestridge Ecological Reserve supports approximately 10 acres of oak woodland habitat suitable for the Harbison's dun skipper, of which half is considered occupied (Marschalek 2021, Figure 2). This habitat occurs along two drainages where both adult and pupae Harbinson's dun skipper were observed during spring 2021 surveys (Marschalek 2021; Figures 2 and 3). The proposed habitat enhancement will include planting San Diego sedge (*Carex spissa*), the Harbison's dun skipper host plant, as well as various species known to provide nectar for adult skippers (as reported in Table 1 Marschalek 2018) in portions of both drainages. To ensure that only local San Diego sedge stock is used for enhancement purposes, seed will be collected from the project site in the summer of 2022 (i.e., before grant term) and given to Native West Nursery for propagation. If no seed is produced at Crestridge this summer, then the California Botanic Garden has agreed to donate 300 seeds that were collected within the same ecoregion as Crestridge, approximately 25 miles from the project site, just west of Campo.

Upon receiving the Notice to Proceed, we will delineate with a GPS unit the areas for enhancement, including points where San Diego sedge plants will be installed. Earth Discovery Institute volunteers will implement all enhancement actions under the guidance of the Outreach and Conservation Directors. EDI volunteers will also help with the San Diego sedge seed collection this summer. Currently, we engage approximately 6 – 8 volunteers on a regular basis for habitat restoration and species conservation projects, primarily in eastern San Diego County. We also recruit volunteers through social media and our website for both weekday and weekend events. We encourage and welcome everyone to participate in our conservation-related projects, and we attempt to engage residents of communities where we work, such as El Cajon, Jamul, Lakeside, Crest, Spring Valley, and Casa de Oro.

Crestridge Ecological Reserve is owned by the California Department of Fish and Wildlife, but managed under contract by the Endangered Habitats Conservancy (Conservancy). The Conservancy is a nonprofit land trust organization, the mission of which is to acquire, manage, monitor, and maintain land in Southern California for habitat protection and restoration, agricultural preservation, and other conservation purposes. Incorporated in 2005, the Conservancy currently manages approximately 10,000 acres of conserved open space lands within the County Subarea Plan Preserve. The Conservancy has agreed to maintain the enhancement areas as part of the other long-term management responsibilities funded by the Preserve's endowment.

The Earth Discovery Institute (EDI) is a local nonprofit environmental education and conservation organization founded in 2000, the mission of which is to inspire stewardship of San Diego's native biodiversity through education and conservation. EDI staff has worked in resource conservation in San Diego County for over 20 years and has extensive knowledge of the Multiple Species Conservation Program (MSCP), and the plant and animal species it was designed to protect. Since 2005, EDI and Conservancy staff have worked closely on various projects benefiting the MSCP-covered vegetation communities, and the species they support.

The Crestridge Ecological Reserve is approximately 2,400 acres and is located in Crest, an unincorporated community in San Diego County, California (Figure 1). This property is within the County Subarea Plan Area, more

specifically within the Metro-Lakeside-Jamul Segment. The proposed project will occur along two unnamed drainages that flow into Rios Canyon Creek (Figures 2 and 3).

References:

Marschalek, D. 2021. Hermes Copper Butterfly Surveys and Translocation Efforts Task 8: 2021 Harbison’s Dun Skipper Adult Surveys SANDAG Contract #: 5005783. Prepared for San Diego Association of Governments. 14 pp.

Marschalek, D. and D. Deutschman. 2018. San Diego County Harbison’s Dun Skipper (*Euphyes vestris harbisoni*) Habitat Conservation and Management Plan. Prepared for San Diego Association of Governments. 34 pp.

San Diego Management and Monitoring Program (SDMMP). 2017. MSP: A Strategic Habitat Conservation Roadmap Volume 2D: Goals and Objectives for Species Focus Management Species. Section 2.3 Harbison’s dun skipper (*Euphyes vestris harbisoni*) – Category SL. Pp. V2D.2-9-2-12.

**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>
1.	Subcontractor Native West Nursery	Propagate San Diego sedge seed	50-75 1-gallon San Diego sedge plants for habitat restoration
2.	Site visit	Delineate enhancement polygons and San Diego sedge planting points	Google earth image showing enhancement polygons and San Diego sedge points
3.	Site prep/planting	Remove invasive species, plant 50-75 San Diego sedge and 150-200 nectar species	Enhancement of 5.0 acres of Harbison’s dun skipper occupied oak woodland habitat
4.	Site maintenance	Hand watering, weeding, plant replacement, as needed	Maintenance of the enhancement areas
5.	Report Writing	Complete Final Report	Final Report
	Project Management / Administrative	Oversee all aspects of the Project	Quarterly grant invoices with progress reports, submittal of Final Report

**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 Projects Cost
1	Subcontractor Native West	\$ 5,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$ 5,000	\$0	\$ 5,000
2	Site visit	\$ 1,000	\$ 960	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$ 1,000	\$ 960	\$ 1,960
3	Site prep/ planting	\$ 3,570	\$ 7,369	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$ 3,570	\$ 7,369	\$10,939
4	Site Maintenance	\$ 4,995	\$0	\$ 4,995	\$ 1,903	\$ 4,995	\$ 1,903	\$ 4,995	\$ 1,903	\$0	\$0	\$19,980	\$ 5,708	\$25,686
5	Report Writing	\$0	\$0	\$0	\$0	\$0	\$0	\$ 2,800	\$0	\$0	\$0	\$ 2,800	\$0	\$ 2,800
	Administrative	\$3,358	\$0	\$3,358	\$0	\$ 3,358	\$0	\$ 3,358	\$0	\$0	\$0	\$13,432	\$0	\$ 13,432
	<b>Subtotal</b>	\$17,923	\$8,320	\$ 8,353	\$2,283	\$ 8,353	\$2,283	\$11,153	\$1,141	\$0	\$0	\$45,782	\$14,037	\$59,819
	<b>Total</b>	\$26,243		\$10,636		\$10,636		\$12,294		\$	\$	\$	\$	\$
	<b>Percentage</b>	68%	32%	79%	21%	79%	21%	91%	9%	%	%	76%	24%	100%

<sup>1</sup> Throughout the Project, Matching Funds must be proportionate to Total Project Costs (Grant Request and Matching Funds combined). For example, if a proposed project Year 1 Grant Request is \$80,000 and proposed Year 1 Matching Funds are \$20,000, the Total Year 1 Project Costs are \$100,000. Therefore, the required proportionate matching funds to provide per invoice during Year 1 of the project are 20% (e.g. invoice submitted for \$8,000 grant amount reimbursement and \$2,000 matching funds submitted). However, if the Year 2 Grant Request is \$70,000 and proposed Year 2 Matching Funds are \$30,000, while the Total Year 2 Project Costs also are \$100,000, the required proportionate matching funds increases per invoice during Year 2 of the project to 30% (e.g. invoice submitted for \$7,000 grant amount reimbursement and \$3,000 matching funds submitted). Retention will be withheld beyond the 10% retention for each invoice submittal that does not meet the proportionate matching funds requirement. These additional matching funds retained will not be released until the proportionate matching funds are reached for the project to-date.

**Project Schedule**

Please include start and end dates relative to the anticipated Notice to Proceed (assumes fall 2022) for each task described in the Scope of Work (Section B above). Please list tasks for quarterly reporting on the status of the grant project and a final report on the outcome of the grant project. You may add or subtract rows as needed.

**Exhibit C – Proposed Project Schedule (Assumes fall 2022 Notice to Proceed [NTP])**

Task No.	Task Name	Proposed Start Date	Months Needed to Complete Task	Task End Date
1.	Subcontractor Native West	"0.25" Months from NTP	"2" Months	01/31/2023
2.	Site Visit	"0.5" Months from NTP	"1" Months	01/31/2023
3.	Site Prep/Planting	"1" Months from NTP	"2" Months	03/31/2023
4.	Site Maintenance	"3" Months from NTP	"39" Months	05/30/2026
5.	Report Writing	"41" Months from NTP	"0.25" Months	05/30/2026
....	Project Management / Administrative	".25" Months from NTP	"41" Months	05/30/2026

*If the NTP is delayed, that will delay seed propagation by Native West and the installation of the nectar plants. The site has irrigation so plants can be watered if we are not able to plant during the rainy season.*

## 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.

X 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.

X 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.

X 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.

X 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.

X Yes  No

## Required Statements from Applicant

- | Yes | No                       |   |
|-----|--------------------------|---|
| X   | <input type="checkbox"/> | The applicant has read and understands the Sample Grant Agreement (Agreement) and Invoice Template (Attachment 4).  |
| X   | <input type="checkbox"/> | 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.  |
| X   | <input type="checkbox"/> | 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: <a href="http://sandag.org/organization/about/pubs/policy_035.pdf">sandag.org/organization/about/pubs/policy_035.pdf</a>   |
| X   | <input type="checkbox"/> | The applicant understands that 10% of all invoiced amounts will be retained until the completion of the proposed project.   |
| X   | <input type="checkbox"/> | The applicant understands that for proposed projects with matching funds, retention will be withheld beyond the 10% 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.  |
| X   | <input type="checkbox"/> | 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.   |
| X   | <input type="checkbox"/> | 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.   |
| X   | <input type="checkbox"/> | The applicant understands that the EMP quarterly report template (to be sent to the grantee after NTP is issued and can be found at <a href="http://sandag.org/index.asp?classid=17&amp;projectid=447&amp;fuseaction=projects.detail">sandag.org/index.asp?classid=17&amp;projectid=447&amp;fuseaction=projects.detail</a> ) 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.   |
| X   | <input type="checkbox"/> | 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 <a href="http://sandag.org/index.asp?classid=17&amp;projectid=447&amp;fuseaction=projects.detail">sandag.org/index.asp?classid=17&amp;projectid=447&amp;fuseaction=projects.detail</a> ); and all outstanding deliverables in order to receive final payment and have retained funds released. |
| X   | <input type="checkbox"/> | 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 <i>two weeks</i> 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.  |
| X   | <input type="checkbox"/> | 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.

Christine Beck

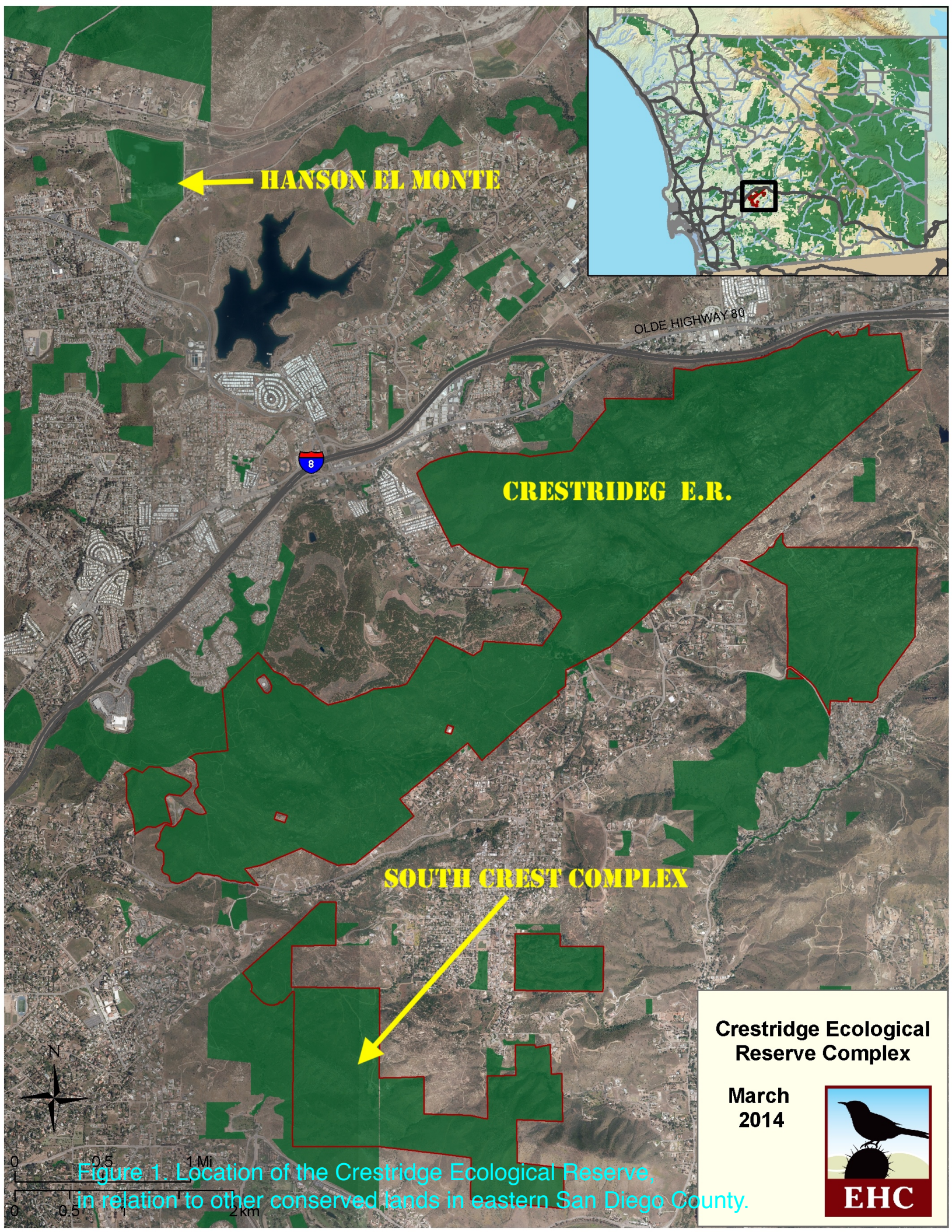
**Applicant Name and Title (print or type)**

Christine Beck

28 January 2022

**Applicant Signature**

**Date**



**HANSON EL MONTE**

**CRESTRIDEG E.R.**

**SOUTH CREST COMPLEX**

OLDE HIGHWAY 80

8

**Crestridge Ecological Reserve Complex**

**March 2014**



**EHC**

Figure 1. Location of the Crestridge Ecological Reserve, in relation to other conserved lands in eastern San Diego County.

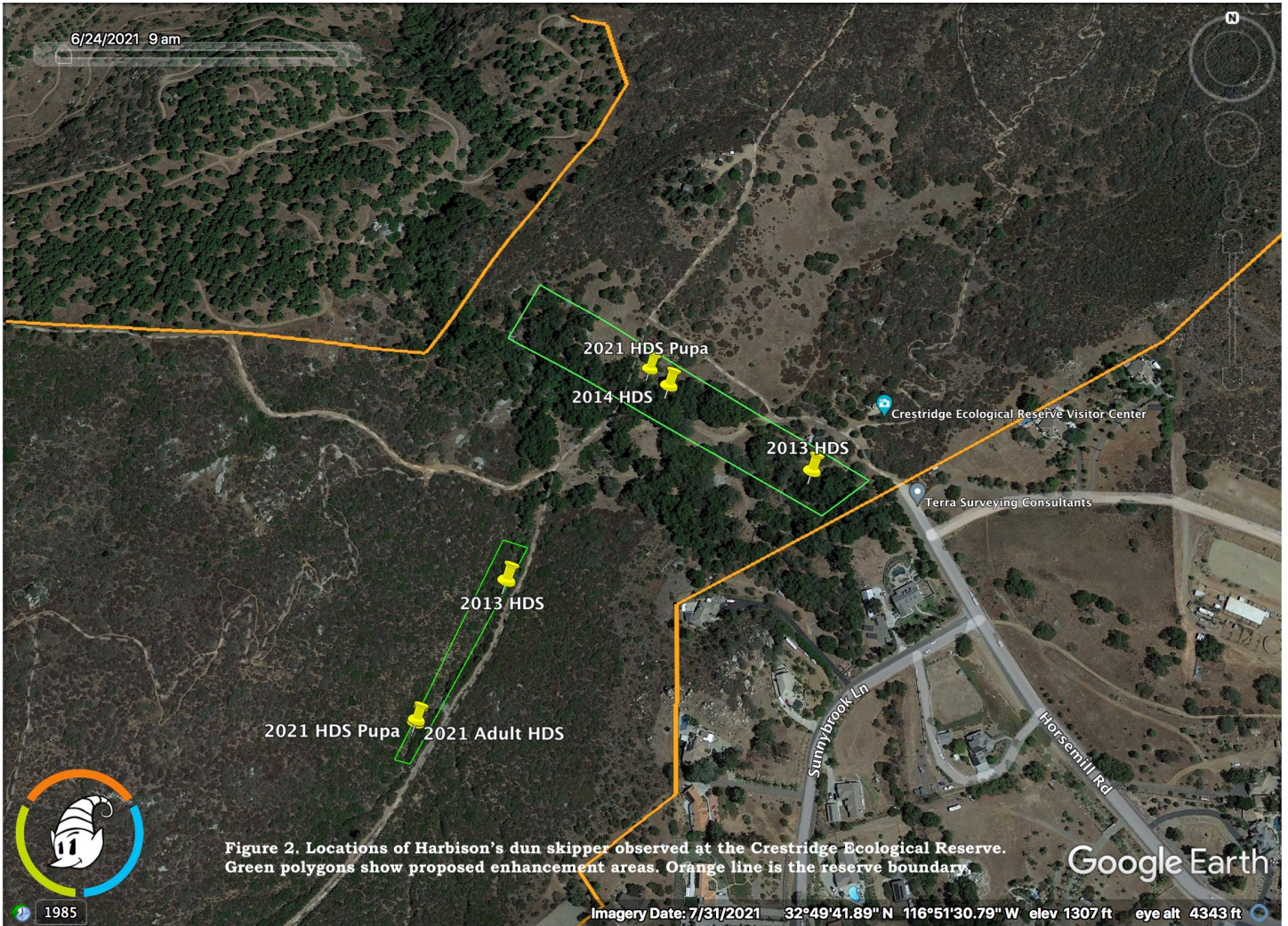




Figure 3. Photos showing potential enhancement areas within occupied Harbison's dun skipper habitat at Crestridge Ecological Reserve, San Diego County.