



**CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE  
HABITAT CONSERVATION PLANNING BRANCH  
P.O. Box 944209  
SACRAMENTO, CA 94244-6423**

California Endangered Species Act  
Native Plant Protection Act  
Scientific, Educational, or Management Permit No. 2081(a)-20-012-RP

GREEN BIOME INSTITUTE  
ACTIVITIES INVOLVING STATE-LISTED PLANTS

**Authority:** This California Endangered Species Act (CESA) and Native Plant Protection Act (NPPA) Scientific, Educational, or Management Permit (Permit) is issued by the California Department of Fish and Wildlife (CDFW). CESA prohibits the import, export, take<sup>1</sup>, possession, purchase or sale of any species, or any part or product of a species that is designated by the California Fish and Game Commission as an endangered, threatened, or candidate species.<sup>2</sup> The NPPA prohibits the import, take, possession, or sale of any native plant that is designated by the California Fish and Game Commission as endangered or rare. CDFW, however, may authorize the import, export, possession, or take of such species by permit for scientific, educational, or management purposes pursuant to Fish and Game Code section 2081, subdivision (a) and California Code of Regulations, Title 14, section 786.9, subdivision (c).

**Permittee:** **Green Biome Institute  
California State University East Bay  
25800 Carlos Bee Blvd.  
Hayward, CA 94542**

**Contact Person:** **Chris Baysdorfer, Ph.D.  
Professor of Biology and Director  
Green Biome Institute  
Chris.baysdorfer@csueastbay.edu  
(510) 885-3459**

**Effective Date and Expiration Date of this Permit:**

This Permit shall be executed in original form and shall become effective only after the Permittee has signed the last page of this Permit, CDFW has signed the last page of this Permit, and the fully executed Permit has been returned to the Permittee. Unless renewed by CDFW, this Permit's authorization shall expire on **December 31, 2030**.

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<sup>1</sup>Pursuant to Fish and Game Code section 86, "Take" means hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill."

<sup>2</sup>"Candidate species" are species of wildlife that have not yet been placed on the list of endangered species or the list of threatened species, but which are under formal consideration for listing pursuant to Fish and Game Code section 2074.2.

Notwithstanding the expiration date on the import, export, take, and possession authorization provided by this Permit, Permittee's obligations under this Permit do not end until all necessary monitoring has been completed and CDFW accepts all annual reports as complete as described below.

**Covered Species Subject to Authorization Provided by this Permit:**

This Permit covers plants designated as rare pursuant to the NPPA and plants designated as endangered, threatened, or candidate species pursuant to CESA (Cal. Code Regs. tit. 14 § 670.2). These species and only these species are hereinafter referred to as "Covered Species."

**Project Description:**

Permittee's activities involving Covered Species include:

- Collection of voucher specimens;
- Collection and storage of small amounts of plant tissue including leaves, flowers, and fruit for genetic sequencing and analysis;
- Cryopreservation and storage of cell cultures; and
- Monitoring of wild plant populations.

The activities listed above are hereinafter collectively referred to as the "Project." Project collection activities will take place at wild populations of Covered Species in California. Genetic analysis and storage of plant tissue and cell cultures will take place at the Green Biome Institute located on the California State University East Bay campus. Voucher specimens of state-listed plants will be deposited at herbaria that are members of the Consortium of California Herbaria.<sup>3</sup>

**Take and Possession Authorization:**

Project activities are expected to result in take and possession of Covered Species. This Permit authorizes the Permittee and its assistant investigators, employees, contractors, and agents to take and possess the Covered Species for the purposes described above, subject to the limitations and conditions described in this Permit. This Permit does not authorize take or possession of Covered Species for activities other than those described above, take of Covered Species outside of the Project Location described above, take of Covered Species resulting from violation of this Permit, take of Covered species not authorized by law, or sale of Covered Species.

<sup>3</sup> <http://ucjeps.berkeley.edu/consortium/>

**Conditions of Approval:**

CDFW's issuance of this Permit and Permittee's authorization to take and possess Covered Species are subject to Permittee's compliance with and implementation of the following conditions of approval:

- 1) Legal Compliance:** Permittee shall comply with all applicable state, federal, and local laws in existence on the effective date of this Permit or adopted thereafter. Permittee shall not conduct Project activities without landowner permission and shall not conduct such activities without first obtaining all other necessary permits and approvals. Permittee shall obtain a separate written authorization from CDFW prior to conducting any activities authorized by this Permit on CDFW lands or lands on which CDFW holds a conservation easement.
- 2) Permit Possession:** Permittee shall maintain a copy of this Permit wherever Project activities are conducted and shall present it to CDFW personnel or personnel from another state, federal, or local agency upon request. Permittee shall provide copies of this Permit, any extensions or amendments to this Permit, and all plans that are developed for the Project to all persons who will be working on the Project on behalf of Permittee, including but not limited to assistant investigators, employees, contractors, subcontractors, inspectors, and monitors.
- 3) Work as Described:** Permittee shall conduct all work as described in this Permit. Where apparent conflicts exist between this Permit and any other plan, project description, or document, Permittee shall comply with the provisions listed in this Permit. Permittee shall obtain written authorization from CDFW as described in Condition of Approval 4 prior to making any modifications to the Project as described in the Project Description of this Permit.
- 4) Requesting CDFW Approval:** Permittee may request written approval for activities involving Covered Species that are not included in the Project by sending an e-mail to staff in CDFW's Native Plant Program, or to [nativeplants@wildlife.ca.gov](mailto:nativeplants@wildlife.ca.gov). The Native Plant Program may need to request additional information, coordinate with other CDFW staff, and conduct an environmental review prior to deciding whether or not to grant authorization for additional activities involving Covered Species. CDFW may grant additional written approval under this Permit via this Condition of Approval with an e-mail from the Native Plant Program. If CDFW does grant authorization to conduct additional activities via e-mail, the authorization will be added to CDFW's file for this Permit. Permittee shall comply with all additional Conditions of Approval required by CDFW in the additional written authorization, shall maintain a copy of the authorization wherever Project activities are conducted, and shall present it to CDFW personnel or personnel from another state, federal, or local agency upon request.

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- 5) **CDFW Access:** Permittee shall provide CDFW staff with reasonable access to the locations where Project activities take place and shall otherwise fully cooperate with CDFW efforts to verify compliance with or effectiveness of this Permit.
- 6) **Limit of Impact:** In carrying out the Project, Permittee shall not cause unnecessary impacts to Covered Species populations or the surrounding habitat. Permittee shall ensure that no more than one percent (1%) of the flowers, any form of vegetative growth, or individual plants of a Covered Species population is impacted during any year as a result of the Project, unless approved by CDFW in advance in writing as described in Condition of Approval 4. Permittee shall immediately notify CDFW if collection activities or impacts not related to the Project are observed or suspected at any population of a Covered Species.
- 7) **Restriction for Small Populations:** Permittee shall ensure that collection of flowers does not significantly reduce the reproductive output of the population they are collected from. Permittee shall not collect flowers from plant populations with fewer than 100 individuals unless approved by CDFW in advance in writing as described in Condition of Approval 4.
- 8) **Voucher Collection Precautions:** Permittee shall ensure that collection of individual plants does not significantly reduce the reproductive output of the population they are collected from. Permittee shall limit the number of individuals collected from a population of any Covered Species to the minimum necessary to positively identify the plant and make either one or two voucher sheets. If Permittee will prepare one voucher sheet, Permittee shall not collect more than five individuals or one percent of the population, whichever is less. If Permittee will prepare two voucher sheets, Permittee shall not collect more than ten individuals or one percent of the population, whichever is less.
- 9) **Voucher Collection:** Permittee may only collect a voucher specimen of a Covered Species for the following reasons:
  - a) To verify the identity of a plant;
  - b) To document a new occurrence of a Covered Species unknown previously to the botanical community, including, but not limited to the CDFW and California Natural Diversity Database (CNDDDB);
  - c) To voucher a specimen from a population or occurrence from which no specimen exists in an herbarium;
  - d) To voucher a specimen from a population or occurrence from which all existing voucher specimens lack the key characteristics necessary for identification; or
  - e) To voucher a specimen from a population or occurrence from which no vouchers have been collected within the past ten years.
- 10) **Deposit in Herbarium:** For each voucher collection of a Covered Species, Permittee shall provide the material sufficient to create one or two voucher sheets

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and deposit the specimens in herbaria that are members of the Consortium of California Herbaria. The specimens shall either be properly mounted on one or two voucher sheets before submittal or submitted as instructed by the herbarium. Permittee shall provide the Permit number to the herbaria, along with the other information submitted with the specimens. If two voucher sheets will be prepared, Permittee shall send them to two separate herbaria in California. Permittee shall not deposit Covered Species voucher sheets in personal, agency, or company herbaria, or herbaria located outside of California unless CDFW authorizes such actions in writing.

**11) Coordination with other Institutions:** Permittee shall coordinate with other institutions permitted to take and possess Covered Species in California (California Botanic Garden, Regional Parks Botanic Garden, San Diego Botanic Garden, San Diego Zoo Global/Center for Plant Conservation, Santa Barbara Botanic Garden, University of California Botanical Garden, and University of California Santa Cruz Arboretum) to ensure that no more than one percent of the flowers or any form of vegetative growth, or individual plants of any population of a Covered Species is directly impacted during any year as a result of the activities of the Permittee and other institutions, unless approved by CDFW in advance in writing as described in Condition of Approval 4.

**12) Restrictions on Covered Species Collections:** Permittee may only collect Covered Species from the wild for the purposes listed in the Project Description of this Permit unless collection for other purposes is approved by CDFW in advance in writing as described in Condition of Approval 4. Covered Species collection that requires additional CDFW approval in advance in writing includes, but is not limited to, activities related to avoiding, minimizing, or mitigating impacts from a project; managed relocation; seed collection; and propagating plants for restoration or reintroduction projects.

**13) Report Species Discovered:** Permittee shall report the current status of any Covered Species populations visited, and any new discovery of a Covered Species or any other species of CDFW conservation concern<sup>4</sup> by submitting a CNDDDB Field Survey Form.<sup>5</sup> The survey form may either be submitted through CNDDDB's Online Field Survey Form or via the PDF Field Survey Form<sup>6</sup> (Attachment 1). Permittee shall provide locations, documented with global positioning systems (GPS) if possible, and include the datum<sup>7</sup> in which the data was collected. If the Permittee submits a PDF Field Survey Form, Permittee shall complete the form according to

<sup>4</sup>Species of conservation concern include "Special Plants" described on page iv of CDFW's Special Vascular Plants, Bryophytes, and Lichens List: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109383&inline=1>

<sup>5</sup> <https://wildlife.ca.gov/Data/CNDDDB/Submitting-Data>

<sup>6</sup> <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=25739>

<sup>7</sup> NAD83, NAD27 or WGS84

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the General Instructions for Filling Out California Natural Diversity Database Field Survey Forms<sup>8</sup> (Attachment 2), and shall include a copy of the relevant portion of a 7.5-minute topographic map with the occurrence or population mapped. Permittee shall submit a completed Field Survey Form no later than January 31 of the year following the observation.

**14) Annual Report:** Permittee shall provide a summary of all Project activities that took place during each calendar year to CDFW's Habitat Conservation Planning Branch at the address below by January 31 of the following year. Permittee shall present the annual reports in a standard scientific format, and each annual report shall include the following:

- a) The Permit number (2081(a)-20-012-RP);
- b) A description of all Project activities conducted by the Permittee involving Covered Species;
- c) A description of all additional activities conducted by the Permittee involving Covered Species that were authorized via Condition of Approval 4;
- d) The number and locations of populations and individual plants sampled, and the amounts of flowers, leaves, and other vegetative growth that were collected from each population;
- e) A list of all Covered Species plant voucher specimens collected in the year which includes the collection number, date of collection, number of sheets made, where sheets were deposited, CNDDDB element occurrence number, and purpose of collection (see Attachment 3);
- f) Written confirmation that all California Native Species Field Survey Forms have been submitted to CDFW's CNDDDB as described in Condition of Approval 13;
- g) The results of Covered Species genetic analyses and related research;
- h) Any management recommendations for the Covered Species; and
- i) Any other relevant information regarding the Project.

Annual reports for the Project will be due on the following dates:

**January 31, 2022**  
**January 31, 2023**  
**January 31, 2024**  
**January 31, 2025**  
**January 31, 2026**  
**January 31, 2027**  
**January 31, 2028**  
**January 31, 2029**  
**January 31, 2030**  
**January 31, 2031**

<sup>8</sup> <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=25736>

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**Permit Execution and Contact Information:**

The Permittee shall sign and return this Permit as instructed by CDFW. This Permit becomes effective on the date of CDFW's signature. Written notices, annual reports, and other communications relating to this Permit shall be e-mailed to CDFW at [nativeplants@wildlife.ca.gov](mailto:nativeplants@wildlife.ca.gov) and shall reference the Permit number (2081(a)-20-012-RP) in the e-mail or in a cover letter and on any associated documents. If it is not possible for Permittee to e-mail documents, Permittee may mail written notices, annual reports, and other communications relating to this Permit to:

California Department of Fish and Wildlife  
Habitat Conservation Planning Branch  
Native Plant Program  
P.O. Box 944209  
Sacramento, CA 94244-2090

**Liability:**

Permittee shall be solely liable for any violations of this Permit, CESA, NPPA, or any other law or regulation. This Permit does not constitute CDFW's endorsement of or require Permittee to proceed with Project activities. The decision to proceed with Project activities is Permittee's alone.

**Amendment, Revocation, and Enforcement:**

This Permit may be amended or revoked by CDFW at any time without the concurrence of the Permittee, including if changes are made to the Project without the consent of CDFW. Nothing in this Permit precludes CDFW from pursuing an enforcement action against Permittee instead of, or in addition to amending or revoking this Permit. Nothing in this Permit limits or otherwise affects CDFW's enforcement authority or that of its enforcement personnel.

**Attachments:**

- |              |   |
|--------------|---|
| Attachment 1 | California Native Species Field Survey Form                 |
| Attachment 2 | California Native Species Field Survey Form<br>Instructions |
| Attachment 3 | Voucher Collection Annual Report Form                       |

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**ISSUED BY THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE**

on 12/21/2020

DocuSigned by:  
  
30A9068313DB0442...

ISABEL BAER  
NATIVE PLANT PROGRAM MANAGER  
HABITAT CONSERVATION PLANNING BRANCH

**ACKNOWLEDGMENT**

The undersigned: (1) warrants that they are acting as a duly authorized representative of the Permittee, (2) acknowledges receipt of this Permit, and (3) agrees on behalf of the Permittee to comply with all terms and conditions.

By:  Date: 12/21/2020  
704F55D352B241C...

Printed Name: Dr. Christopher Baysdorfer Title: Professor of Biological Sciences

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Mail to:

California Natural Diversity Database

California Dept. of Fish & Wildlife

1416 9th Street, Suite 1266

Sacramento, CA 95814

Fax: (916) 324-0475 email: CNDDDB@wildlife.ca.gov

For Office Use Only

Source Code: \_\_\_\_\_ Quad Code: \_\_\_\_\_

Elm Code: \_\_\_\_\_ Occ No.: \_\_\_\_\_

EO Index: \_\_\_\_\_ Map Index: \_\_\_\_\_

Date of Field Work (mm/dd/yyyy): \_\_\_\_\_

Clear Form

California Native Species Field Survey Form

Print Form

Scientific Name: \_\_\_\_\_

Common Name: \_\_\_\_\_

Species Found? Yes  No  If not found, why? \_\_\_\_\_

Total No. Individuals: \_\_\_\_\_ Subsequent Visit? Yes  No

Is this an existing NDDDB occurrence? Yes, Occ. # \_\_\_\_\_ No  Unk.

Collection? If yes: \_\_\_\_\_ Number \_\_\_\_\_ Museum / Herbarium \_\_\_\_\_

Reporter: \_\_\_\_\_

Address: \_\_\_\_\_

E-mail Address: \_\_\_\_\_

Phone: \_\_\_\_\_

Plant Information

Phenology:

% vegetative \_\_\_\_\_ % flowering \_\_\_\_\_ % fruiting \_\_\_\_\_

Animal Information

# adults \_\_\_\_\_ # juveniles \_\_\_\_\_ # larvae \_\_\_\_\_ # egg masses \_\_\_\_\_ # unknown \_\_\_\_\_
winterring  breeding  nesting  rookery  burrow site  lek  other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: \_\_\_\_\_ Landowner / Mgr: \_\_\_\_\_

Quad Name: \_\_\_\_\_ Elevation: \_\_\_\_\_

T \_\_\_\_\_ R \_\_\_\_\_ Sec \_\_\_\_\_, \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4, Meridian: H  M  S  Source of Coordinates (GPS, topo. map & type): \_\_\_\_\_

T \_\_\_\_\_ R \_\_\_\_\_ Sec \_\_\_\_\_, \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4, Meridian: H  M  S  GPS Make & Model: \_\_\_\_\_

DATUM: NAD27  NAD83  WGS84  Horizontal Accuracy: \_\_\_\_\_ meters/feet

Coordinate System: UTM Zone 10  UTM Zone 11  OR Geographic (Latitude & Longitude)

Coordinates: \_\_\_\_\_

Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:

Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): Excellent  Good  Fair  Poor

Immediate AND surrounding land use: \_\_\_\_\_

Visible disturbances: \_\_\_\_\_

Threats: \_\_\_\_\_

Comments: \_\_\_\_\_

Determination: (check one or more, and fill in blanks)

- Keyed (cite reference): \_\_\_\_\_
Compared with specimen housed at: \_\_\_\_\_
Compared with photo / drawing in: \_\_\_\_\_
By another person (name): \_\_\_\_\_
Other: \_\_\_\_\_

Photographs: (check one or more)

Slide  Print  Digital 
Plant / animal 
Habitat 
Diagnostic feature

May we obtain duplicates at our expense? yes  no



## California Natural Diversity Database

<http://www.dfg.ca.gov/biogeodata/cnddb/>

1416 9th Street, Suite 1266

Sacramento, CA 95814

Voice: (916) 322-2493

Fax: (916) 324-0475

**State of California**  
 Department of Fish and Wildlife  
 Biogeographic Data Branch  
[bdb@wildlife.ca.gov](mailto:bdb@wildlife.ca.gov)



# General Instructions for Filling Out California Natural Diversity Database Field Survey Forms

The California Natural Diversity Database (CNDDDB) is the largest, most comprehensive database of its type in the world. It presently contains over 80,000 site-specific records on California's rarest plants, animals, and natural communities. The majority of the data collection effort has been performed by an exceptional assemblage of biologists throughout the state and the West. The backbone of this effort is the field survey form.

Although the future lies in the digital submission of both field survey data and maps, the form system is still in use. The CNDDDB's [current field survey form](#) is available in Adobe Acrobat PDF format and can be submitted by email or printed and mailed to the address at the top of the field survey form. To determine what species and natural communities are of concern to the CNDDDB, refer to our free publications on our [CNDDDB Plants & Animals](#) webpage:

- *Special Vascular Plants, Bryophytes, and Lichens List*
- *Special Animals List*

The CNDDDB welcomes information that documents new sites as well as information that updates existing sites. Reports on repeat visits to sites that already exist in the CNDDDB are as important as documenting new sites in order to help the CNDDDB track trends in population/stand size and condition.

The following table details what kind of information should be entered for each field on the field survey form. Also enclosed are examples of plant and animal field survey forms with the information that the CNDDDB would like to see. You may either submit a map with the field survey form or fill out the fields in the Location Description section of the field survey form. If you choose to submit a map, please make sure that the population/stand is clearly outlined or that individual occurrences are clearly marked on the map. There are several locations on the Internet that allow you to make a map, such as ArcGIS Online, Bing Maps, Google Maps, etc.

If you choose not to submit a map, please make sure that you fill out the Location Description section of the field survey form by providing us with a detailed description of the location and township-range-section (TRS) information or a set of coordinates with datum<sup>†</sup>. Please fill in as much of the Location Description section of the field survey form as possible; it is helpful for CNDDDB biologists to have multiple ways of checking for locality errors by comparing coordinates and TRS information with location descriptions. Remember that your name, telephone number, and email address are very important in case we have questions about the form.

The CNDDDB is only as good as the information in it, and we depend on people like you to contribute your quality field observations. Thank you for your help in improving the CNDDDB.

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<sup>†</sup> Please see [Instructions for Reporting Coordinates to the California Natural Diversity Database](#).

## CNDDDB field survey form field names and descriptions and/or definitions

Field Name	Description/Definition
Date of Field Work	The most specific date that field work was conducted. If multiple days, please enter the latest, most recent date, and clarify date ranges or multiple visits in Comments if needed.
Scientific Name <sup>1</sup>	Scientific name of the species. Please use subspecies or variety when relevant (e.g., <i>Masticophis lateralis euryxanthus</i> as opposed to just <i>Masticophis lateralis</i> ).
Common Name <sup>1</sup>	Standard common name of the plant, animal, or community.
Species Found (y/n)	Usually "Yes," but the CNDDDB values <i>negative</i> observations (known area of historical occurrence, but presently absent). Include details of survey effort for negative data in space provided and/or Comments.
Total Number of Individuals	The number of individuals observed/detected. Alternatively, an estimated number, range, or orders of magnitude (e.g., 100s; 1,000s; 100,000s).
Subsequent Visit	Is this a subsequent visit? History of a site is important to the CNDDDB.
CNDDDB Occurrence #	Please state the CNDDDB occurrence number if known.
Collection # & Museum/Herbarium	Collection number (personal or catalogue number) and the institution where deposited.
Reporter Information	Reporting person's name, postal address, email address, and phone number.
<i>Plant Information</i>	
Phenology	For plants, please state the percent that is vegetative, flowering, and/or fruiting.
<i>Animal Information</i>	
Animal Age Classes	Indicate number of individuals observed in each age class (adult, juvenile, larvae, egg mass, unknown).
Animal Site Use <sup>2</sup>	Indicate how the site was being used at the time of observation (also see Animal Behavior).
Location Description	Please provide a general location description.
County	The California county name where the observation occurred.
Quad <sup>3</sup>	The U.S. Geological Survey 7.5 minute topographical quadrangle.
Landowner	Please state the landowner if known. "Private" is sufficient for private ownership.
Elevation	Elevation and units (feet/meters) where the observation occurred.
Township – Range – Section <sup>4</sup>	The T-R-S from the Public Land Survey System. A marked map or coordinates are preferred.
Coordinate Source <sup>5</sup>	Please provide the source of coordinates, such as GPS, topographic map, GoogleEarth, or software program.
GPS make/model <sup>5</sup>	Make and model of GPS if relevant.
Horizontal accuracy <sup>5</sup>	Horizontal accuracy of GPS unit at the time data was collected.
Datum <sup>6</sup>	The specific datum used to determine location coordinates. All GPS and map coordinates require a datum.
Coordinate System <sup>5</sup>	Indicate whether the coordinates are for UTM zone 10 or 11, or are geographic (Lat/Long) coordinates.
Coordinates <sup>3, 5</sup>	The numeric values of the coordinates.
Habitat Description	Describe the habitat, such as vegetation type, dominants, associates, soil types, aspects, and other physical characteristics relevant to the species and observation.
Animal Behavior <sup>2</sup>	Describe the behavior of the animal when observed, especially behavior indicating evidence of breeding.
<i>Site Information</i>	
Overall quality & viability <sup>6</sup>	Is the likely persistence of the occurrence into the future Excellent, Good, Fair, or Poor? This is an assessment of the overall viability of this occurrence. Both the quality and condition of the site and of the occurrence must be considered when scoring. Take into account population size, demography, viability over time, site condition, and any disturbances.
Surrounding Land Uses	Please state the immediate and surrounding land uses that affect this site.
Visible Disturbances	Please state the disturbances that are or may impact this site or occurrence.
Threats	Please describe the threats to this occurrence. Please include, but distinguish between, both current and impending threats.
Comments	Add other comments about your observation that you think would be useful in evaluating the occurrence or that would provide additional, relevant information to others, such as negative data, survey effort, study design, disposition, relocation, or conservation concerns.
<i>Determination</i>	Please indicate how the species identification was determined.
<i>Photographs</i>	Please check appropriate boxes. Since digital photos are very common nowadays, you're welcome and encouraged to submit digital photos with your field survey form, either electronic or printed.

<sup>1</sup> Standard scientific and common names can be found on the [CNDDDB website](#) in the following CNDDDB publications: *Special Vascular Plants, Bryophytes, and Lichens List* and *Special Animals List*.

<sup>2</sup> To evaluate animal observations effectively, the CNDDDB needs as much information as possible about Animal Site Use and Animal Behavior, especially for birds. Avian specific definitions can be found in [General Information for Submitting Avian Detections to the CNDDDB](#).

<sup>3</sup> The Biogeographic Data Branch's [BIOS map viewer](#) can be used to identify Quads, as well as return coordinates for a location.

<sup>4</sup> Details of the PLSS, including ¼ ¼ sections, can be found at [NationalMap.gov](#) and [Modernization of the Public Land Survey, Figure 2.3](#). Meridians for California are Humboldt (H), Mt. Diablo (M), and San Bernardino (S).

<sup>5</sup> Please see [Instructions for Reporting Coordinates to the CNDDDB](#).

<sup>6</sup> More details are available on [NatureServe's Ranking Species Occurrences webpage](#) (see Excellent, Good, Fair, Poor).

Mail to:

California Natural Diversity Database

California Dept. of Fish &amp; Wildlife

1416 9th Street, Suite 1266

Sacramento, CA 95814

Fax: (916) 324-0475 email: CNDDDB@wildlife.ca.gov

## For Office Use Only

Source Code: \_\_\_\_\_ Quad Code: \_\_\_\_\_

Elm Code: \_\_\_\_\_ Occ No.: \_\_\_\_\_

EO Index: \_\_\_\_\_ Map Index: \_\_\_\_\_

Date of Field Work (mm/dd/yyyy): 02/19/2010

Clear Form

## California Native Species Field Survey Form

Print Form

Scientific Name: Plant scientific nameCommon Name: Plant common nameSpecies Found?  Yes  No \_\_\_\_\_  
If not found, why?Total No. Individuals: 35,000+ Subsequent Visit?  Yes  NoIs this an existing NDDDB occurrence? 73  No  Unk.  
Yes, Occ. #Collection? If yes: \_\_\_\_\_  
Number Museum / HerbariumReporter: California Natural Diversity DatabaseAddress: 1416 9th Street, Suite 1266Sacramento, CA 95814E-mail Address: CNDDDB@wildlife.ca.govPhone: (916) 322-2493

## Plant Information

Phenology:

100

% vegetative % flowering % fruiting

## Animal Information

# adults # juveniles # larvae # egg masses # unknown  
 wintering  breeding  nesting  rookery  burrow site  lek  other

## Location Description (please attach map AND/OR fill out your choice of coordinates, below)

Oceanside: Above Loma Alta Creek, 0.8 km ESE intersection of El Camino Real and Oceanside Blvd and 1.0 km NE of Eternal Hills Cemetery.

County: San Diego Landowner / Mgr: PrivateQuad Name: San Luis Rey Elevation: 46 mT 11S R 4W Sec 20, SE 1/4 of SW 1/4, Meridian: H  M  S  Source of Coordinates (GPS, topo. map & type): GPST \_\_\_\_\_ R \_\_\_\_\_ Sec \_\_\_\_\_, \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4, Meridian: H  M  S  GPS Make & Model: Garmin GPSmap60DATUM: NAD27  NAD83  WGS84  Horizontal Accuracy: 3 meters meters/feetCoordinate System: UTM Zone 10  UTM Zone 11  OR Geographic (Latitude & Longitude) Coordinates: 0469800m E, 3673489m N

## Habitat Description (plants &amp; animals) plant communities, dominants, associates, substrates/soils, aspects/slope:

## Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):

North-facing slope in annual grassland. Associated with European grasses, *Dichelostemma capitatum*, *Sisyrinchium bellum*, and *Foeniculum vulgare*. Population wraps around a patch of disturbed ground, possibly from a slump or human related, where *F. vulgare* dominates. A dirt road passes through the population.

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population):  Excellent  Good  Fair  PoorImmediate AND surrounding land use: Currently within open space between Sprinter Line tracks and houses at top of hill.

Visible disturbances: \_\_\_\_\_

Threats: Mostly competition from non-native *Foeniculum* and European grasses; nearby recreational impacts.Comments: About 7,000 square meters, mostly with patchy clusters of 13 to 90 plants. A core area (red on attached Google Earth aerial) of about 70 square meters is mostly high density with at least 7,500 plants and an additional large number (potentially 20,400) of seedlings may be this species. Overall site has at least 30,000 identifiable plants.

## Determination: (check one or more, and fill in blanks)

- Keyed (cite reference): \_\_\_\_\_
- Compared with specimen housed at: \_\_\_\_\_
- Compared with photo / drawing in: \_\_\_\_\_
- By another person (name): \_\_\_\_\_
- Other: Known from previous experience

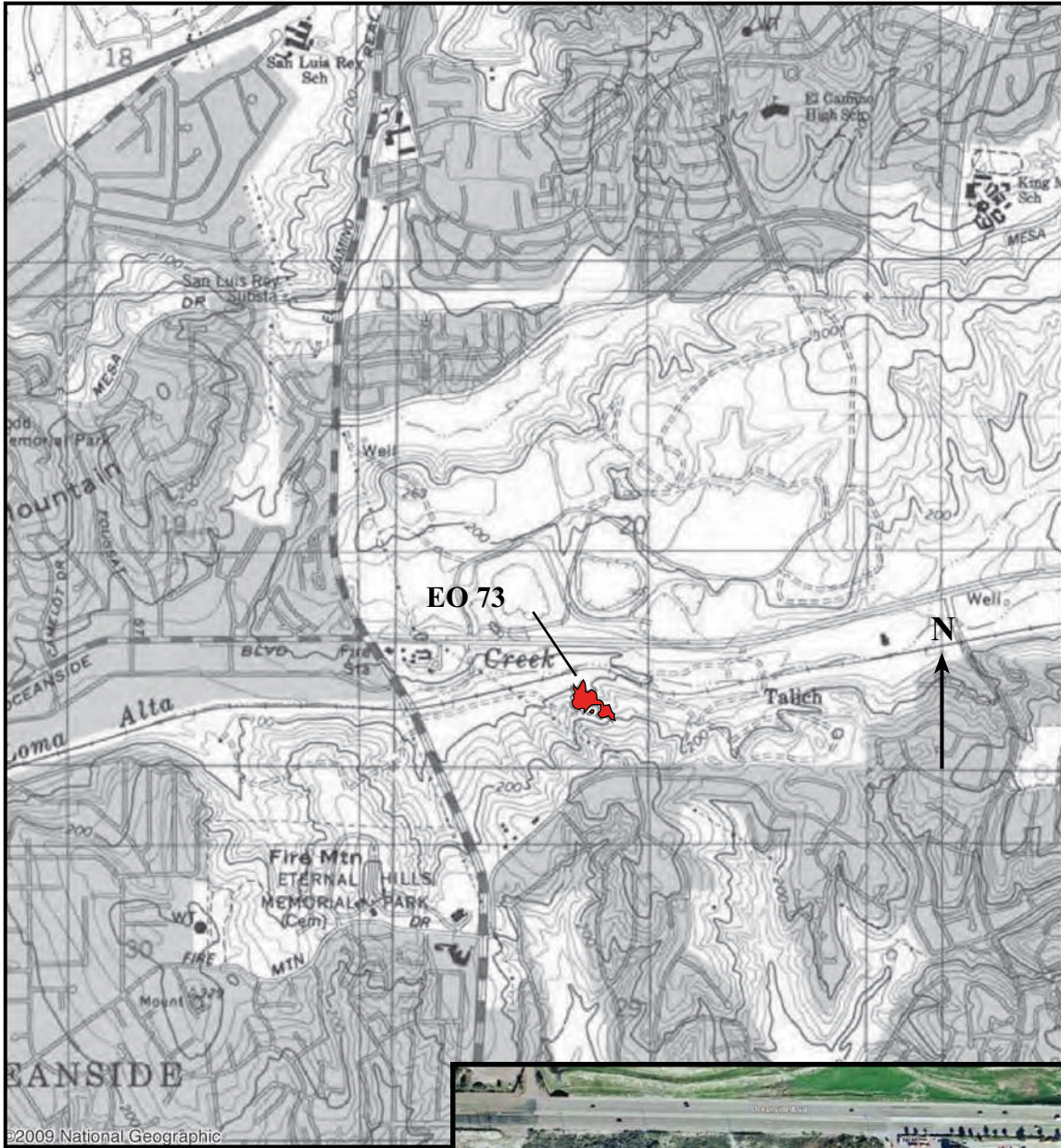
## Photographs: (check one or more)

	Slide	Print	Digital
Plant / animal	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Habitat	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Diagnostic feature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

May we obtain duplicates at our expense?  yes  no



# "Plant scientific name" EO 73 San Luis Rey 7.5" Quad



Mail to:

California Natural Diversity Database

California Dept. of Fish &amp; Wildlife

1416 9th Street, Suite 1266

Sacramento, CA 95814

Fax: (916) 324-0475 email: CNDDDB@wildlife.ca.gov

## For Office Use Only

Source Code: \_\_\_\_\_ Quad Code: \_\_\_\_\_

Elm Code: \_\_\_\_\_ Occ No.: \_\_\_\_\_

EO Index: \_\_\_\_\_ Map Index: \_\_\_\_\_

Date of Field Work (mm/dd/yyyy): 04/27/2008

Clear Form

## California Native Species Field Survey Form

Print Form

Scientific Name: *Haliaeetus leucocephalus*

Common Name: Bald Eagle

Species Found?  Yes  No \_\_\_\_\_ If not found, why?Total No. Individuals: 2+ Subsequent Visit?  Yes  NoIs this an existing NDDB occurrence? \_\_\_\_\_  No  Unk.  
Yes, Occ. # \_\_\_\_\_Collection? If yes: \_\_\_\_\_  
Number \_\_\_\_\_ Museum / Herbarium \_\_\_\_\_Reporter: Brian AcordAddress: 1416 9th Street, Suite 1266Sacramento, CA 95814E-mail Address: CNDDDB@wildlife.ca.govPhone: (916) 322-2493

## Plant Information

Phenology:

100

% vegetative \_\_\_\_\_ % flowering \_\_\_\_\_ % fruiting \_\_\_\_\_

## Animal Information

2

# adults

# juveniles

# larvae

# egg masses

# unknown

 wintering breeding nesting rookery burrow site lek other

## Location Description (please attach map AND/OR fill out your choice of coordinates, below)

Anderson Island Nature Preserve, Folsom Reservoir, Folsom State Recreation Area (DPR), The nest is in one of the tallest gray pines in middle of the north side of island near the vegetation line. 0.7 miles SSE from Sterling Point Equestrian access (end of Sterling Point Ct.)County: El Dorado Landowner / Mgr: Calif. Dept. of Parks & RecreationQuad Name: Pilot Hill Elevation: 475 feetT 11N R 08E Sec 20, SE 1/4 of NE 1/4, Meridian: H  M  S  Source of Coordinates (GPS, topo. map & type): CDFW BIOST \_\_\_\_\_ R \_\_\_\_\_ Sec \_\_\_\_\_, \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4, Meridian: H  M  S  GPS Make & Model: \_\_\_\_\_DATUM: NAD27  NAD83  WGS84  Horizontal Accuracy: \_\_\_\_\_ meters/feetCoordinate System: UTM Zone 10  UTM Zone 11  OR Geographic (Latitude & Longitude) Coordinates: DD, Long: -121.103849532481, Lat: 38.7923265200967 for nest site

## Habitat Description (plants &amp; animals) plant communities, dominants, associates, substrates/soils, aspects/slope:

## Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):

Island (sometimes contiguous with east shore of lake due to water levels) in recreation lake surrounded by mixed stands of oaks, gray pines, and California buckeye.One adult Bald Eagle was initially observed in gray pine adjacent to nest tree. A second Bald Eagle flew out from the understory of the island carrying a juvenile Canada goose to the nest. Second adult stayed in the nest for 10-20 minutes, presumably feeding chick(s); unable to confirm any young from our location. The birds roosted on island & east side of lake.

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population):  Excellent  Good  Fair  PoorImmediate AND surrounding land use: Site managed as multi-use outdoor recreation park (horse riding, bike riding, hiking, fishing, etc.)Visible disturbances: High use of water craft on lake may disturb adult & juvenile birds, although access to island is restricted (posted).

Threats: \_\_\_\_\_

Comments: Two of us spent about 1.5 hours observing the birds with a spotting scope and binoculars.

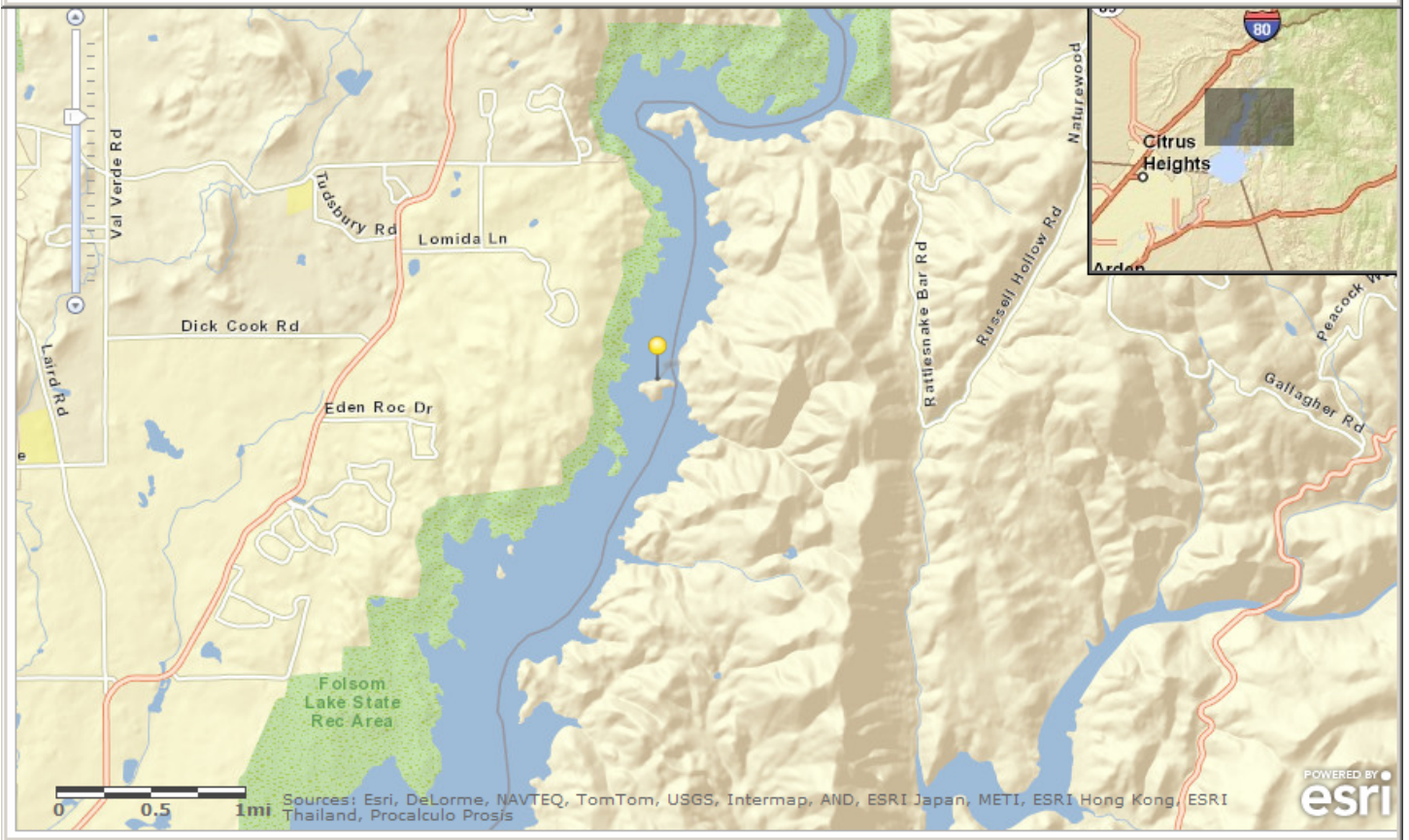
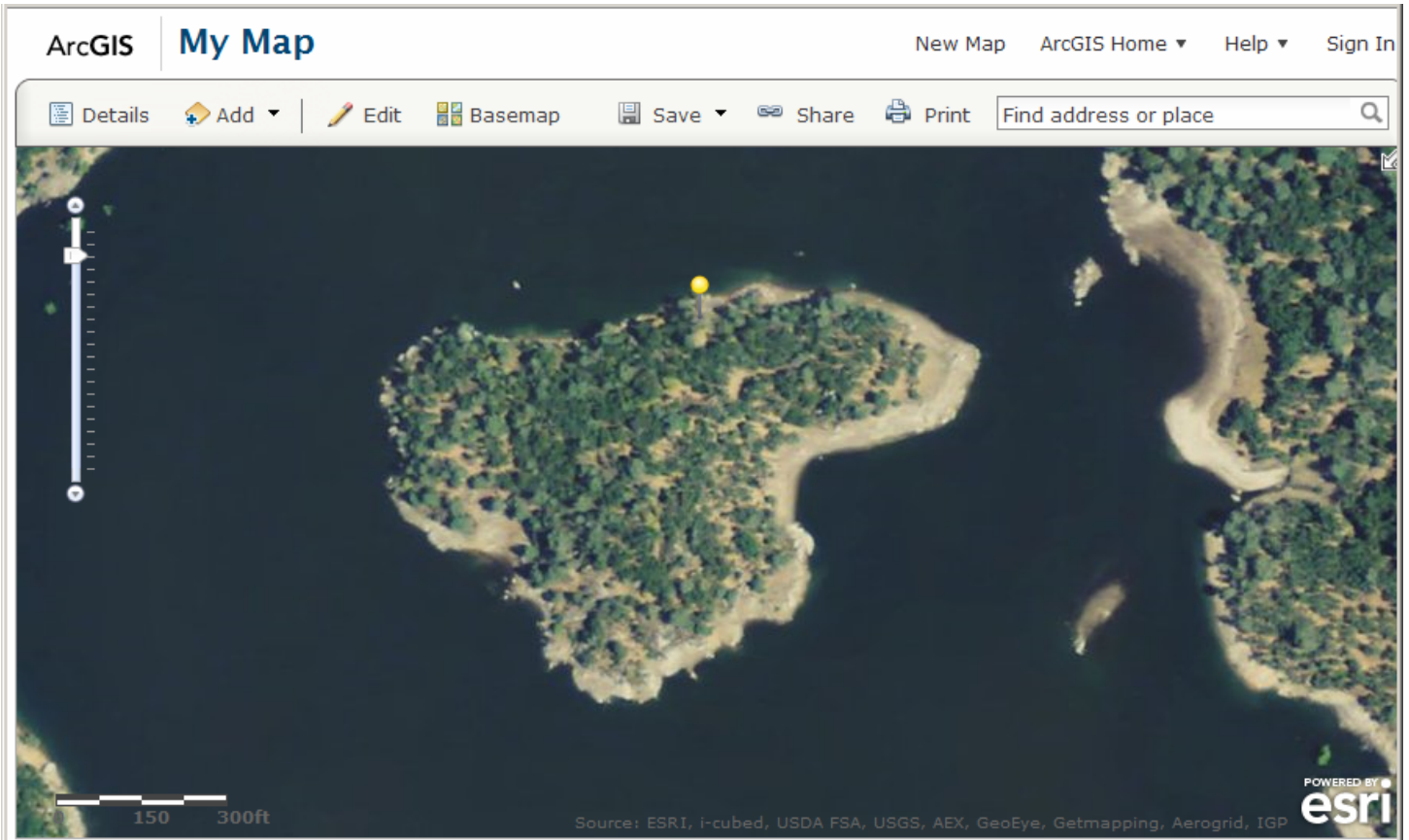
## Determination: (check one or more, and fill in blanks)

 Keyed (cite reference): \_\_\_\_\_ Compared with specimen housed at: \_\_\_\_\_ Compared with photo / drawing in: \_\_\_\_\_ By another person (name): K. Rogers Other: Experience in ornithology, animal behavior, professional Wildlife Biologist

## Photographs: (check one or more)

Plant / animal  Slide  Print  DigitalHabitat   Diagnostic feature   May we obtain duplicates at our expense?  yes  no









**Annual Report for Calendar Year: \_\_\_\_\_**

For the California Endangered Species Act (CESA) plant voucher collection permit issued by the Department of Fish and Wildlife pursuant to Fish and Game Code § 2081, subdivision (a).

**Permit Number:** \_\_\_\_\_ (example: 2081(a)-19-001-V)

**Name:** \_\_\_\_\_ **Email:** \_\_\_\_\_

**Address:** \_\_\_\_\_ **Phone:** \_\_\_\_\_

\_\_\_\_\_ **Affiliation:** \_\_\_\_\_

\_\_\_\_\_

**Were CESA-listed plants collected during the calendar year?:**

**YES** (complete table, sign below and submit)  **NO** (sign below and submit)

**Use one line for each population collected from:**

Species scientific name	Voucher/Collection #	Date of collection mm/dd/yy	# sheets made	Codes for herbaria where sheets deposited (e.g. JEPS)	CNDDDB element occurrence # (attach form if new occurrence)	Purposes of collection (see below)
			1 <input type="checkbox"/> 2 <input type="checkbox"/>			1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/>
			1 <input type="checkbox"/> 2 <input type="checkbox"/>			1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/>
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			1 <input type="checkbox"/> 2 <input type="checkbox"/>			1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/>
			1 <input type="checkbox"/> 2 <input type="checkbox"/>			1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/>
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			1 <input type="checkbox"/> 2 <input type="checkbox"/>			1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/>
			1 <input type="checkbox"/> 2 <input type="checkbox"/>			1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/>

Select the reasons for the collection (see the provisions of your plant voucher collection permit): "1" to verify the identity of a plant; "2" to document a new occurrence; "3" if no voucher exists for an occurrence; "4" if vouchers for an occurrence lack characteristics for ID; and "5" if no vouchers have been collected within the past ten years. Enter "6" if other reason and explain below. Attach additional sheets if needed.

**Check box to confirm that California Native Species Field Survey Forms were submitted to the California Natural Diversity Database (CNDDDB) for all populations that were visited, and that CNDDDB forms are attached to this report for any new populations discovered.**

**Notes:** \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**SIGN AND DATE:** I certify that the information provided in this report is true and accurate.

Signature \_\_\_\_\_

Date \_\_\_\_\_



State of California -The Natural Resources Agency  
DEPARTMENT OF FISH AND WILDLIFE  
Habitat Conservation Planning Branch  
Native Plant Program  
P.O. Box 944209  
Sacramento, CA 94244-2090  
<http://www.wildlife.ca.gov>

**GAVIN NEWSOM, Governor**  
**CHARLTON H. BONHAM, Director**



Date: 12/21/2020

Chris Baysdorfer, Ph.D.  
Green Biome Institute  
California State University East Bay  
25800 Carlos Bee Blvd.  
Hayward, CA 94542  
[Chris.baysdorfer@csueastbay.edu](mailto:Chris.baysdorfer@csueastbay.edu)

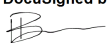
**California Endangered Species Act and Native Plant Protection Act Scientific, Educational, or Management Permit (2081(a)-20-012-RP)**

Dear Dr. Chris Baysdorfer:

Enclosed please find a fully executed Scientific, Educational, or Management Permit (2081(a)-20-012-RP) pursuant to Fish and Game Code Section 2081(a) and California Code of Regulations, Title 14, section 786.9, subdivision (c) for the Green Biome Institute's activities involving state-listed plants. The permit will be valid until December 31, 2030. Reports are due annually by January 31.

If you have any questions, please contact the Native Plant Program at [nativeplants@wildlife.ca.gov](mailto:nativeplants@wildlife.ca.gov) or (916) 376-8656.

Sincerely,

DocuSigned by:  
  
36A908313DB6442...

Isabel Baer  
Native Plant Program Manager  
Habitat Conservation Planning Branch

Enclosures