



**Heritage Brodiaea Preserve
2024 Summary Monitoring Report (Year 7)
San Diego, California**

Prepared for
Lennar Homes
16465 Via Esprillo, Suite 150
San Diego, CA 92127

Prepared by
RECON Environmental, Inc.
3111 Camino del Rio North, Suite 600
San Diego, CA 92108
P 619.308.9333

RECON Number 7108-3
January 28, 2025

A handwritten signature in black ink that reads "Gerry Scheid".

Gerry Scheid, Senior Biologist

TABLE OF CONTENTS

| | | |
|------|---|---|
| 1.0 | Introduction | 1 |
| 2.0 | HBP Translocation History | 1 |
| 3.0 | HBP 2024 Maintenance Activities | 1 |
| 4.0 | HBP 2024 Thread-leaved Brodiaea Vegetative Counts..... | 5 |
| 5.0 | HBP 2024 Thread-leaved Brodiaea Flowering Individuals Count | 6 |
| 6.0 | Plant and Wildlife Observations..... | 7 |
| 7.0 | Native Grassland Mitigation (Year 4) | 7 |
| 8.0 | Supplemental Planting | 8 |
| 9.0 | Annual Dethatch | 9 |
| 10.0 | Management Activities for 2025..... | 9 |

FIGURES

| | | |
|----|---|---|
| 1: | Regional Location | 2 |
| 2: | HBP Location on Aerial Photograph..... | 3 |
| 3: | Distribution of Natural and Translocated Thread-leaved Brodiaea in the HBP..... | 4 |

TABLES

| | | |
|----|--|---|
| 1: | HBP Thread-leaved Brodiaea Vegetative Counts for Natural Population..... | 5 |
| 2: | Heritage Bluffs II Thread-leaved Brodiaea Translocation Summary: 2017 through 2024 | 5 |
| 3: | East Clusters Unit 3 Thread-leaved Brodiaea Translocation Summary: 2016 through 2024... | 6 |
| 4: | HBP Thread-leaved Brodiaea Flowering Individuals (2024)..... | 6 |

ATTACHMENTS

| | |
|----|---------------------------|
| 1: | Photographs |
| 2: | Plant Species Observed |
| 3: | Wildlife Species Observed |

1.0 Introduction

This monitoring report presents the results of activities conducted within the Heritage Brodiaea Preserve (HBP) during the period of January 1 to December 31, 2024. Activities discussed in this report include site maintenance activities, thread-leaved brodiaea (*Brodiaea filifolia*) 2024 population (vegetative) counts and flowering data, native grassland mitigation progress, and other activities.

The HBP is an approximately 14-acre biological open space area that was dedicated as part of the Heritage Bluffs II development project. The HBP is located in the northern part of San Diego (Figure 1) and it occurs to the south of Carmel Valley Road and to the east of the Black Mountain Open Space Preserve (Figure 2). The City of San Diego has now included the HBP area into its Multiple Species Conservation Program Subarea Plan's Multi-Habitat Planning Area.

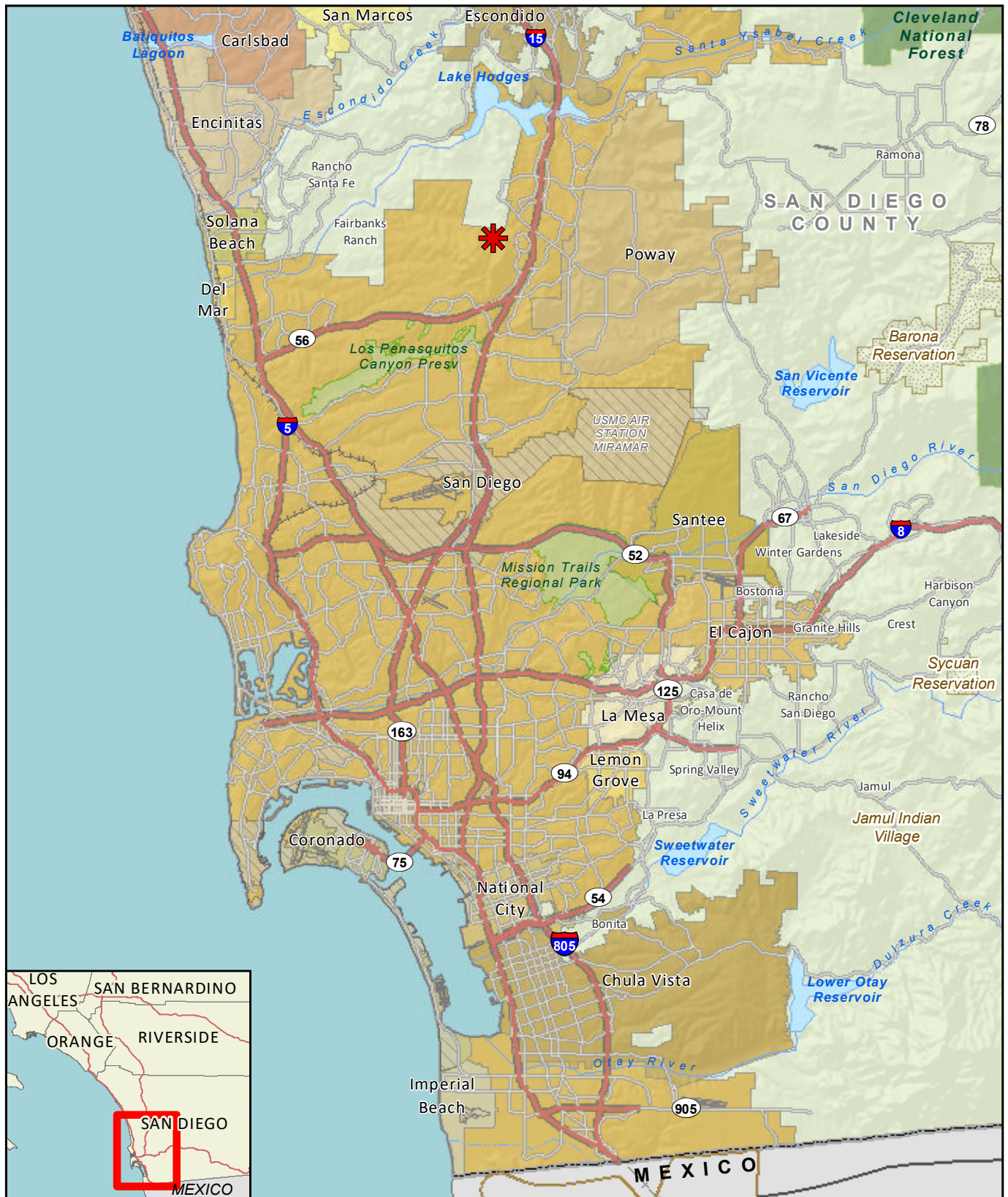
The goal of the HBP is to facilitate the conservation, preservation, and enhancement of biological resources as part of mitigation for impacts associated with development of the Heritage Bluffs II and East Clusters development project sites. The HBP has preserved a regionally significant population of thread-leaved brodiaea in a Conservation Easement dedicated for that purpose.

2.0 HBP Translocation History

The translocation of salvaged thread-leaved brodiaea occurred as part of the East Clusters Unit 3 and Heritage Bluffs II development projects and the locations of these translocations are shown on Figure 3. These translocation efforts established the baseline numbers of thread-leaved brodiaea plants for the mitigation monitoring effort. The 2024 monitoring year represents the seventh year after translocation for the Heritage Bluffs II thread-leaved brodiaea and the eighth year after translocation for the East Clusters Unit 3 effort.

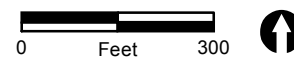
3.0 HBP 2024 Maintenance Activities

Maintenance activities conducted within the HBP area during 2024 focused on the control of perennial weeds. General control of perennial weeds occurred throughout the year due to the above average annual rainfall. During the fall months, weeding was conducted around thread-leaved brodiaea locations to remove excess thatch of non-native grasses.



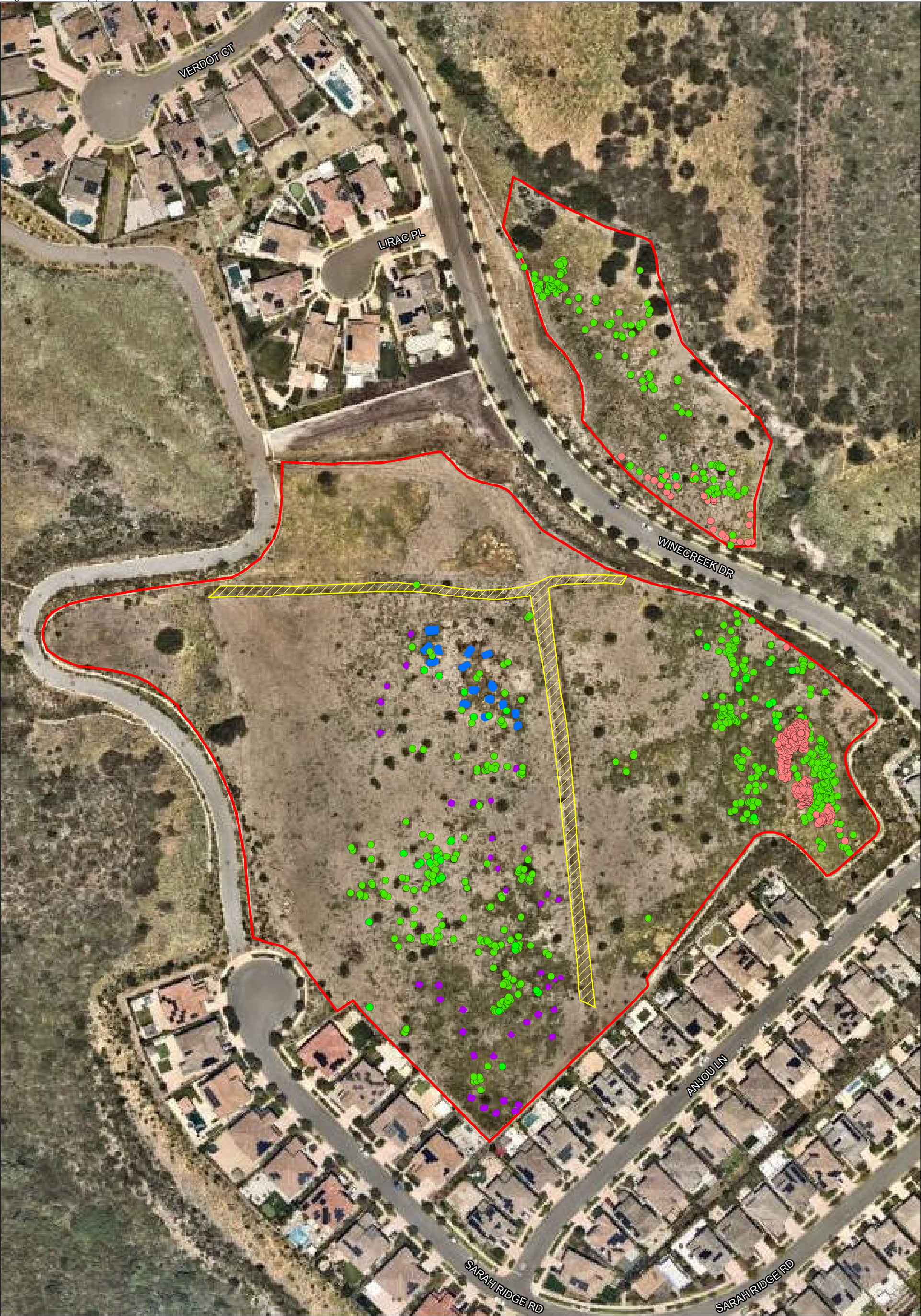
 Project Location

FIGURE 1
Regional Location



 HBP Boundary

FIGURE 2
HBP Location on Aerial Photograph



- HBP Boundary
- East Clusters Unit 3 Transplant
- Heritage Bluffs II Corm Transplant
- Natural Brodiaea
- Heritage Bluffs II Cut/Block Transplant
- Native Grassland Mitigation Area



FIGURE 3

Distribution of Natural and Translocated Thread-leaved Brodiaea in the HBP

4.0 HBP 2024 Thread-leaved Brodiaea Vegetative Counts

A census of the number of thread-leaved brodiaea expressing vegetative growth for the translocation areas in the HBP was conducted during the months of January through March of 2024. The census involved the mapping of expressed natural thread-leaved brodiaea plants not previously located, and all translocated thread-leaved brodiaea plant locations (i.e., corm and cut/block) now within the HBP. A census of the natural thread-leaved brodiaea plants expressing vegetatively in the HBP was not conducted this year.

Each thread-leaved brodiaea translocation location was visited and a direct count of the vegetative individuals expressed at the location was done. The last vegetative count data for the HBP natural population conducted in 2021 is given in Table 1. The 2024 vegetative counts for all translocated/transplanted thread-leaved brodiaea are presented in Table 2 (Heritage Bluffs II translocated) and Table 3 (East Clusters Unit 3 translocated and transplanted), along with vegetated count data from previous years and the baseline reference counts.

| Table 1 HBP Thread-leaved Brodiaea Vegetative Counts for Natural Population | | | | | |
|--|-------------------|---------------|---------------|---------------|---------------|
| | Vegetative Count* | | | | |
| | 2017 | 2018 | 2019 | 2010 | 2021 |
| TOTAL | 10,211 | 15,263 | 13,811 | 13,848 | 13,161 |
| *Based on count of individuals that expressed vegetatively. | | | | | |

| Table 2 Heritage Bluffs II Thread-leaved Brodiaea Translocation Summary: 2017 through 2024 | | | | | | | | | |
|--|--------------------------------|-------------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|
| Translocation Method | Initial Translocation Estimate | Vegetative Count* | | | | | | | |
| | | 2017 | 2018 Year 1 | 2019 Year 2 | 2020 Year 3 | 2021 Year 4 | 2022 Year 5 | 2023 Year 6 | 2024 Year 7 |
| Corm Translocation | 2,690 | 2,556 | 2,727 | 3,192 | 3,840 | 4,859 | 4,934 | 4,269 | 4,539 |
| Corm Translocation† | 1,166 | 1,161 | 1,262 | 1,389 | 1,413 | 1,774 | 1,435 | 1,155 | 1,287 |
| Cut-Block Salvage‡ | 1,850 | 2,414 | 2,477 | 3,816 | 3,789 | 3,496 | 3,574 | 2,557 | 2,703 |
| TOTAL | 5,706** | 6,131 | 6,556 | 8,397 | 9,013 | 10,129 | 9,943 | 7,981 | 8,529 |
| *Based on count of individuals that expressed vegetatively. | | | | | | | | | |
| †Salvaged from East Clusters. | | | | | | | | | |
| ‡Salvaged and planted March 2017. | | | | | | | | | |
| **Total planted individuals to be used as baseline for subsequent site assessments. | | | | | | | | | |

| Table 3 East Clusters Unit 3 Thread-leaved Brodiaea Translocation Summary: 2016 through 2024 | | | | | | | | | |
|---|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Translocation Method | Vegetative Count* | | | | | | | | |
| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| Corm Translocation | 3,175 | 3,281 | 3,569 | 5,311 | 5,306 | 7,358 | 8,471 | 7,750 | 8,378 |
| TOTAL | 3,175 | 3,281 | 3,569 | 5,311 | 5,306 | 7,358 | 8,471 | 7,750 | 8,378 |
| *Based on count of individuals that expressed vegetatively. | | | | | | | | | |

Herbivory was relatively low to the natural thread-leaved brodiaea locations during 2024. The average amount of precipitation coupled with the frequency of events were good for vegetation growth in the HBP. The primary cause of herbivory was from animals grazing on the vegetative shoots during the late winter months.

Precipitation amounts for this portion of San Diego County were normal during the 2023-2024 rainfall season. The above-average amount of precipitation coupled with good frequency of events were both good for vegetation growth in the HBP. As such, the number of the thread-leaved brodiaea that expressed vegetatively within the translocation areas increased when compared to the previous year vegetative counts. Representative photographs of vegetative growth observed during the 2024 counts are provided (Photographs 1 through 7). All photographs referenced in this report are located in Attachment 1.

5.0 HBP 2024 Thread-leaved Brodiaea Flowering Individuals Count

A count of the number of thread-leaved brodiaea individuals that produced a flower stalk during the spring of 2024 was conducted within the HBP. The flower stalk count included all the translocated locations. The data on flowering individuals are given in Table 4. Representative photographs of flowering individuals of thread-leaved brodiaea are shown in Photographs 8 through 14.

| Table 4 HBP Thread-leaved Brodiaea Flowering Individuals (2024) | | |
|--|-----------------------|--|
| Brodiaea Type | Flowering Individuals | Percent Vegetative Individuals Flowering |
| Heritage Bluffs II Corm Translocation | 304 | 5.4 |
| Heritage Bluffs II Corm Translocation | 66 | 5.1 |
| Heritage Bluffs II Cut-Block Translocation | 31 | 1.3 |
| East Clusters Unit 3 Corm Translocation | 512 | 6.1 |

The percentage of those thread-leaved brodiaea that expressed vegetatively and then flowered ranged between 1.3 percent and 6.1 percent during the spring of 2024. This flowering data is significantly lower than in 2023, but consistent with other years where rainfall was at or below

average. Although vegetative expression was higher than the previous year, the corms that expressed vegetatively in 2024 died back sooner, shortening the flowering period which likely limited the production of flower stalks.

6.0 Plant and Wildlife Observations

Vegetation cover estimates were conducted visually. Native plant cover in the HBP primarily consists of native bunchgrasses along with scattered individuals of native perennial plants, for example, gumplant (*Grindelia camporum*), lemonadeberry (*Rhus integrifolia*), redberry (*Rhamnus crocea*), coastal goldenbush (*Isocoma menzessii*), long-stemmed golden yarrow (*Eriophyllum confertiflorum*), and California buckwheat (*Eriogonum fasciculatum*). The estimated vegetative plant cover for the HBP is approximately 60 percent.

A list of plant species observed within the HBP, compiled during monitoring visits, is provided as Attachment 2. A total of 65 plants species were documented. Examples of native species observed in the preserve areas include blue-eyed grass (*Sisyrinchium bellum*) (Photograph 15), California poppy (*Eschscholzia californica*) (Photograph 16), deerweed (*Acmispon glaber*) (Photograph 17), small-flowered morning glory (*Convolvulus simulans*) (Photographs 18 and 19), white nightshade (*Solanum americanum*) (Photograph 20), cryptantha (*Cryptantha* sp.) (Photograph 21), and common goldfields (*Lasthenia gracilis*) (Photograph 22).

A list of general wildlife species observed within the HBP was compiled during monitoring visits and is provided as Attachment 3. Observed wildlife included 7 species of insect, 1 snail species, 4 reptile species, 25 bird species, and 4 mammal species. Notable wildlife species observed on the site this past year were greater roadrunner (*Geococcyx californianus*), coyote (*Canis latrans*), California quail (*Callipepla californica*), southern Pacific rattlesnake (*Crotalus oreganus helleri*) (Photograph 23), and San Diego gophersnake (*Pituophis catenifer annectens*). An owl box was installed in the larger western preserve area in the fall of 2021 to attract barn owls; however, no owls have occupied the box to date.

7.0 Native Grassland Mitigation (Year 4)

The Heritage Bluffs II development project conditions of approval required the implementation of a native grassland mitigation element. A mitigation plan was approved that outlined the mitigation requirement that included the establishment of a minimum 0.15 acre of native grassland and the enhancement of a 0.30-acre buffer within a 0.45-acre restoration area. The restoration area rehabilitated two old dirt roads that previously existed in the HBP (see Figure 3).

Implementation of the native grassland mitigation within the HBP began with the planting of the native bunch grasses during the first week of December 2020. Weed control was the primary maintenance activity conducted in the native grassland mitigation area during the current year.

The success criteria for the native grassland mitigation include the assessment of species richness/recruitment, native vegetation cover, non-native vegetation cover, and target invasive species. The assessment of these criteria for Year 4 of the five-year monitoring period is as follows:

- **Species Richness and Recruitment:** Evaluation of the number of native species observed in the native grassland mitigation area found five native plant species: purple needlegrass (*Stipa pulchra*), foothill needlegrass (*Stipa lepida*), California encelia (*Encelia californica*), willow herb (*Epilobium brachycarpum*), and long-stemmed golden-yarrow (*Eriophyllum confertiflorum*) (Photograph 24). The presence of five native species meets the Year 4 success criteria milestone which required five native species to be present. Recruitment of needlegrasses (Photograph 25), long-stemmed golden yarrow, and willow herb were observed this year.
- **Native Vegetation Cover:** Native vegetation cover was estimated to be 60 percent and consisted primarily of the two native grass species planted (Photographs 26 and 27). The Year 4 success criteria milestone is 45 percent. The vegetative cover of the native grasses this year increased substantially over the last year due to favorable weather conditions and implementation of weed control measures.
- **Non-native Vegetation Cover:** Cover of non-native vegetation was less than 1 percent due to the regular control of non-native species. The Year 4 success goal for this criterion was a maximum of 20 percent cover of non-native species.
- **Target Invasive Species:** There were no significant numbers of target invasive species (e.g., artichoke thistle [*Cynara cardunculus*], fennel [*Foeniculum vulgare*], Australian saltbush [*Atriplex semibaccata*], black mustard [*Brassica nigra*], bristly ox-tongue [*Helminthotheca echinoides*], Russian thistle [*Salsola tragus*]) within the native grassland mitigation area due to regular control of these species during maintenance visits. The success goal for this criterion for Year 4 was no target invasive species present.

The native grassland mitigation area is progressing well. Regular control of non-native plant species and continued recruitment of native grasses and other native plants improves the overall habitat quality.

8.0 Supplemental Planting

Supplemental planting within the HBP occurred during the fall of 2023. One-gallon container stock of purple needlegrass and foothill needlegrass were planted in portions of the larger western preserve area. The native grass container stock had a relatively high survivorship and contributed to the native plant cover observed in 2024 (Photograph 28).

Supplemental planting of additional one-gallon container stock of native grasses was scheduled to occur in December of 2024. However, the container stock was not installed due to the lack of rainfall needed to charge the soil moisture to enhance survivorship. The planting of the native grass container stock will be implemented in February or March of 2025 depending on the timing of seasonal rainfall.

9.0 Annual Dethatch

An annual dethatch of the translocation/transplant plots and the natural thread-leaved brodiaea locations was conducted in the fall of 2024. The dethatch is necessary to remove the dead vegetative biomass from the non-native grasses that grow within and adjacent to these areas so that the emerging thread-leaved brodiaea the following winter would not be inhibited. Without removal of the dense thatch the thread-leaved brodiaea may not be able to grow through the dead biomass and thus be shaded resulting in high mortality rates.

The non-native grasses can dominate the cover in and around the thread-leaved brodiaea locations (Photographs 29-32). As this cover of non-native grass dries and falls to the ground it creates a thatch of dead biomass that can be several inches thick. Liner trimmers are used to cut this dead grass and raking removes the biomass so the thread-leaved brodiaea locations are prepared for the next winter's reemergence (Photographs 33-38).

10.0 Management Activities for 2025

Management activities to be conducted during 2025 will focus on the continued control of perennial non-native plant species (e.g., artichoke thistle re-sprouts, fennel re-sprouts, Russian thistle, prickly lettuce [*Lactuca serriola*], flaxed-leaved horseweed [*Erigeron bonariensis*] and other weed species). Although significant progress was made in the control of perennial non-native plant species in 2024, control efforts will continue in an effort to keep vegetative cover of these non-native species at low levels. An annual dethatching of the thread-leaved brodiaea translocation/transplant plots and natural locations is anticipated to occur in the fall of 2025 to reduce dead biomass.

The maintenance of the native grassland mitigation area will concentrate on the control of invasive plant species. If weed control progresses well, other native plants may be added to the native grassland mitigation area this year to increase species richness. In addition, planting of native bunch grasses, as mentioned above, and the addition of some native shrub species may occur in other areas of the HBP in the fall of 2025 to augment other areas planted this year and to begin to fill in additional bare areas.

ATTACHMENTS

ATTACHMENT 1

Photographs



PHOTOGRAPH 1

Vegetative Growth at a Natural Thread-leaved Brodiaea Location
(Photo Date: February 24, 2024)



PHOTOGRAPH 2

Vegetative Growth at a Natural Thread-leaved Brodiaea Location
(Photo Date: February 28, 2024)



PHOTOGRAPH 3
Vegetative Growth at a Natural Thread-leaved Brodiaea Location
(Photo Date: February 28, 2024)



PHOTOGRAPH 4
Vegetative Growth of Thread-leaved Brodiaea in a Translocation Plot
(Photo Date March 6, 2024)



PHOTOGRAPH 5
Vegetative Growth of Thread-leaved Brodiaea in a Translocation Plot
(Photo Date March 6, 2024)



PHOTOGRAPH 6
Vegetative Growth of Thread-leaved Brodiaea in a Translocation Plot
(Photo Date March 6, 2024)



PHOTOGRAPH 7
Vegetative Growth of Thread-leaved Brodiaea in a Translocation Plot
(Photo Date March 6, 2024)



PHOTOGRAPH 8
Thread-leaved Brodiaea Flower
(Photo Date: May 14, 2024)



PHOTOGRAPH 9
Thread-leaved Brodiaea Flower
(Photo Date: June 17, 2024)



PHOTOGRAPH 10
Thread-leaved Brodiaea Flower
(Photo Date: May 22, 2024)



PHOTOGRAPH 11
Thread-leaved Brodiaea Flower
(Photo Date: June 17, 2024)



PHOTOGRAPH 12
Thread-leaved Brodiaea Flower
(Photo Date: June 17, 2024)



PHOTOGRAPH 13
Thread-leaved Brodiaea Flower
(Photo Date: June 17, 2024)



PHOTOGRAPH 14
Thread-leaved Brodiaea Flower
(Photo Date: June 17, 2024)



PHOTOGRAPH 15
Blue-eyed Grass Observed in the Heritage Preserve
(Photo Date: February 25, 2024)



PHOTOGRAPH 16
California Poppy Observed in the Heritage Preserve
(Photo Date: April 6, 2024)



PHOTOGRAPH 17
Deerweed Observed in the Heritage Preserve
(Photo Date: March 28, 2023)



PHOTOGRAPH 18
Small-flowered Morning Glory
Observed in the Heritage Preserve
(Photo Date: April 11, 2024)



PHOTOGRAPH 19
Small-flowered Morning Glory
Observed in the Heritage Preserve
(Photo Date: April 22, 2024)



PHOTOGRAPH 20

White Nightshade Observed in the Heritage Preserve
(Photo Date: April 22, 2024)



PHOTOGRAPH 21

Cryptantha Observed in the Heritage Preserve
(Photo Date: April 22, 2024)



PHOTOGRAPH 22

Common Goldfields Observed in the Heritage Preserve
(Photo Date: April 11, 2024)



PHOTOGRAPH 23

A Coiled Southern Pacific Rattlesnake Observed in the Heritage Preserve
(Photo Date: February 28, 2024)



PHOTOGRAPH 24

Long-stemmed Golden Yarrow Occurring in the Native Grassland Mitigation Area at the Heritage Preserve (Photo Date: May 14, 2024)



PHOTOGRAPH 25

Native Needlegrass Recruits in the Native Grassland Mitigation Area at the Heritage Preserve (Photo Date: May 14, 2024)



PHOTOGRAPH 26

Native Needlegrass Vegetative Cover in the Native Grassland Mitigation Area at the Heritage Preserve (Photo Date: May 14, 2024)



PHOTOGRAPH 27

Native Needlegrass Vegetative Cover in the Native Grassland Mitigation Area at the Heritage Preserve (Photo Date: May 22, 2024)



PHOTOGRAPH 28

Growth of Native Needlegrass Individuals Planted from Container Stock at
the Heritage Preserve (Photo Date: May 14, 2024)



PHOTOGRAPH 29

Dense Non-native Grassland Growth in a Natural Thread-leaved Brodiaea Area (Photo Date May 14, 2024)



PHOTOGRAPH 30

Dense Non-native Grassland Growth in a Natural Thread-leaved Brodiaea Area (Photo Date May 14, 2024)



PHOTOGRAPH 31

Dense Non-native Grassland Growth in a Natural Thread-leaved Brodiaea Area (Photo Date May 14, 2024)



PHOTOGRAPH 32

Dense Non-native Grassland Growth Around a Natural Thread-leaved Brodiaea Location (Photo Date May 14, 2024)



PHOTOGRAPH 33

Example of a Translocation Plot that has been De-thatched
(Photo Date October 31, 2024)



PHOTOGRAPH 34

Example of a Translocation Plot that has been De-thatched
(Photo Date October 31, 2024)



PHOTOGRAPH 35

Example of a Natural Thread-leaved Brodiaea Location that has been
De-thatched (Photo Date October 31, 2024)



PHOTOGRAPH 36

Example of a Natural Thread-leaved Brodiaea Location that has been
De-thatched (Photo Date October 31, 2024)



PHOTOGRAPH 37
View of Thread-leaved Brodiaea Area Before Thatch Removal
(Photo Date May 14, 2024)



PHOTOGRAPH 38
View of Thread-leaved Brodiaea Area After Thatch Removal
(Photo Date October 31, 2024)

ATTACHMENT 2

Plant Species Observed

| Attachment 2 Plant Species Observed | | | |
|--|---|--|--------|
| Major Plant Group | Family | Scientific Name / Common Name | Origin |
| Angiosperms: Monocots | Alliaceae / Onion Family | <i>Allium praecox</i> / early onion | N |
| | Iridaceae / Iris Family | <i>Sisyrinchium bellum</i> / western blue-eyed grass | N |
| | Melanthiaceae / False-hellebore Family | <i>Toxicoscordion fremontii</i> [= <i>Zigadenus fremontii</i>] / Fremont's camas | N |
| | Poaceae (Gramineae) / Grass Family | <i>Avena barbata</i> / slender wild oat | I |
| | | <i>Brachypodium distachyon</i> / purple falsebrome | I |
| | | <i>Bromus diandrus</i> / ripgut grass | I |
| | | <i>Bromus hordeaceus</i> / soft chess | I |
| | | <i>Bromus rubens</i> [= <i>Bromus madritensis</i> ssp. <i>rubens</i>] / red brome | I |
| | | <i>Festuca perennis</i> [= <i>Lolium multiflorum</i> and <i>Lolium perenne</i>] / rye grass | I |
| | | <i>Stipa lepida</i> [= <i>Nassella lepida</i>] / foothill needle grass | N |
| | | <i>Stipa pulchra</i> [= <i>Nassella pulchra</i>] / purple needle grass | N |
| | | <i>Stipa tenuissima</i> / Finestem needle grass | I |
| | | | |
| | Themidaceae / Brodiaea Family | <i>Bloomeria crocea</i> / common goldenstar | N |
| | | <i>Brodiaea filifolia</i> / thread-leaved brodiaea | N |
| | | <i>Dipterostemon capitatus</i> [= <i>Dichelostemma capitatum</i>] / blue dicks | N |
| Angiosperms: Eudicots | Amaranthaceae / Amaranth Family | <i>Amaranthus albus</i> / tumbleweed | I |
| | Anacardiaceae / Sumac or Cashew Family | <i>Rhus integrifolia</i> / lemonade berry | N |
| | Apiaceae (Umbelliferae) / Carrot Family | <i>Foeniculum vulgare</i> / fennel | I |
| | Asteraceae / Sunflower Family | <i>Ambrosia psilostachya</i> / western ragweed | N |
| | | <i>Baccharis pilularis</i> / chaparral broom, coyote brush | N |
| | | <i>Corethrogyne filaginifolia</i> var. <i>filaginifolia</i> / California sand-aster | N |
| | | <i>Deinandra fasciculata</i> [= <i>Hemizonia fasciculata</i>] / fascicled tarweed | N |
| | | <i>Encelia californica</i> / California encelia | N |
| | | <i>Erigeron bonariensis</i> [= <i>Conyza bonariensis</i>] / flax-leaved horseweed | I |
| | | <i>Eriophyllum confertiflorum</i> var. <i>confertiflorum</i> / long-stem golden-yarrow | N |
| | | <i>Grindelia camporum</i> [= <i>Grindelia camporum</i> var. <i>bracteosa</i>] / gumplant | N |
| | | <i>Hedypnois cretica</i> / Crete weed | I |
| | | <i>Helminthotheca echioides</i> [= <i>Picris echioides</i>] / bristly ox-tongue | I |
| | | <i>Isocoma menziesii</i> var. <i>menziesii</i> / spreading goldenbush | N |
| | | <i>Lactuca serriola</i> / prickly lettuce | I |
| | | <i>Lasthenia gracilis</i> [<i>L. californica</i> Lindley, misapplied in San Diego County] / common goldfields | N |
| | | | |
| | Asteraceae / Sunflower Family | <i>Pseudognaphalium beneolens</i> [= <i>Gnaphalium canescens</i> ssp. <i>beneolens</i>] / fragrant everlasting | N |
| | | <i>Pseudognaphalium californicum</i> [= <i>Gnaphalium californicum</i>] / California everlasting, green everlasting | N |
| | | <i>Sonchus oleraceus</i> / common sow thistle | I |

| Attachment 2 Plant Species Observed | | | |
|---|--|---|--------|
| Major Plant Group | Family | Scientific Name / Common Name | Origin |
| Angiosperms: Eudicots (cont.) | Boraginaceae / Borage Family | <i>Cryptantha intermedia</i> / nievitas cryptantha | N |
| | Brassicaceae (Cruciferae) / Mustard Family | <i>Brassica nigra</i> / black mustard | I |
| | Caryophyllaceae / Pink Family | <i>Silene gallica</i> / small-flower catchfly, windmill pink | I |
| | Chenopodiaceae / Goosefoot Family | <i>Atriplex semibaccata</i> / Australian saltbush | I |
| | | <i>Salsola tragus</i> / Russian thistle, tumbleweed | I |
| | Convolvulaceae / Morning-Glory Family | <i>Calystegia macrostegia</i> / morning-glory | N |
| | | <i>Convolvulus arvensis</i> / bindweed, orchard morning-glory | I |
| | | <i>Convolvulus simulans</i> / small-flowered morning-glory | N |
| | Cucurbitaceae / Gourd Family | <i>Marah macrocarpa</i> / wild cucumber | N |
| | Fabaceae (Leguminosae) / Legume Family | <i>Acemisson glaber</i> [= <i>Lotus scoparius</i>] / deerweed, California broom | N |
| | | <i>Lathyrus splendens</i> / pride-of-California, Campo pea | N |
| | | <i>Lupinus bicolor</i> / miniature lupine | N |
| | | <i>Lupinus succulentus</i> / arroyo lupine | N |
| | | <i>Medicago polymorpha</i> / California burclover | I |
| | | <i>Melilotus officinalis</i> / yellow sweetclover | I |
| | | <i>Vicia americana</i> ssp. <i>americana</i> / American vetch | N |
| | Geraniaceae / Geranium Family | <i>Erodium cicutarium</i> / redstem filaree | I |
| | | <i>Zeltnera</i> [= <i>Centaurium</i>] <i>venusta</i> / California centaury | N |
| | Hydrophyllaceae / Waterleaf Family | <i>Pholistoma auritum</i> var. <i>auritum</i> / fiesta flower | N |
| | Lamiaceae / Mint Family | <i>Stachys rigida</i> var. <i>rigida</i> [= <i>Stachys ajugoides</i> var. <i>rigida</i>] / hedge nettle | N |
| | Malvaceae / Mallow Family | <i>Sidalcea sparsifolia</i> [= <i>Sidalcea malviflora</i> ssp. <i>sparsifolia</i>] / southern checkerbloom | N |
| | Myrsinaceae / Myrsine Family | <i>Lysimachia arvensis</i> [= <i>Anagallis arvensis</i>] / scarlet pimpernel | I |
| | Onagraceae / Evening-Primrose Family | <i>Epilobium brachycarpum</i> / willow herb, fireweed | N |
| | Papaveraceae / Poppy Family | <i>Eschscholzia californica</i> / California poppy | N |
| | Polygonaceae / Buckwheat Family | <i>Eriogonum fasciculatum</i> / California buckwheat | N |
| | | <i>Rumex crispus</i> / curly dock | I |
| | Rhamnaceae / Buckthorn Family | <i>Rhamnus crocea</i> / spiny redberry | N |
| | Rubiaceae / Madder Family | <i>Galium</i> sp. / bedstraw, cleavers | N |
| | Solanaceae / Nightshade Family | <i>Datura wrightii</i> / western Jimson weed | N |
| | | <i>Solanum americanum</i> / white nightshade | N |
| | Violaceae / Violet Family | <i>Viola pedunculata</i> / johnny-jump-up | N |
| ORIGIN N = Native to locality. I = Introduced species from outside locality. | | | |

ATTACHMENT 3

Wildlife Species Observed

| Attachment 3 Wildlife Species Observed | | | |
|---|--|--|--------|
| Major Wildlife Group | Family | Scientific / Common Name | Origin |
| Invertebrates | Apidae / Honey Bees, Bumble Bees, and Allies | <i>Apis mellifera</i> / honey bee | I |
| | Papilionidae / Parnassians & Swallowtails | <i>Papilio rutulus</i> / western tiger swallowtail | N |
| | Pieridae / Whites & Sulphurs | <i>Pontia protodice</i> / checkered [=common] white | N |
| | Nymphalidae / Brush-footed Butterflies | <i>Agraulis vanillae incarnata</i> / gulf fritillary | N |
| | | <i>Junonia coenia grisea</i> / common buckeye | N |
| | | <i>Vanessa cardui</i> / painted lady | N |
| | Land Snails / Helminthoglyptidae | <i>Heminthoglypta traskii coelata</i> / Peninsular Range shoulderbrand snail | N |
| | Formicidae / Ants | <i>Linepithema humile</i> / Argentine ant | I |
| Reptiles | Phrynosomatidae / Spiny Lizards | <i>Sceloporus occidentalis longipes</i> / Great Basin fence lizard | N |
| | | <i>Uta stansburiana elegans</i> / western side-blotched lizard | N |
| | Colubridae / Colubrid Snakes | <i>Pituophis catenifer annectens</i> / San Diego gophersnake | N |
| | Crotalidae / Rattlesnakes | <i>Crotalus oreganus helleri</i> / southern Pacific rattlesnake | N |
| Birds | Odontophoridae / New World Quail | <i>Callipepla californica</i> / California quail | N |
| | Cathartidae / New World Vultures | <i>Cathartes aura</i> / turkey vulture | N |
| | Accipitridae / Hawks, Kites, & Eagles | <i>Buteo jamaicensis</i> / red-tailed hawk | N |
| | Falconidae / Falcons | <i>Falco sparverius</i> / American kestrel | N |
| | Charadriidae / Lapwings & Plovers | <i>Charadrius vociferus</i> / killdeer | N |
| | Columbidae / Pigeons & Doves | <i>Zenaidura macroura</i> / mourning dove | N |
| | Cuculidae / Cuckoos & Roadrunners | <i>Geococcyx californianus</i> / greater roadrunner | N |
| | Tyrannidae / Tyrant Flycatchers | <i>Sayornis nigricans</i> / black phoebe | N |
| | | <i>Sayornis saya</i> / Say's phoebe | N |
| | | <i>Tyrannus verticalis</i> / western kingbird | N |
| | Corvidae / Crows, Jays, & Magpies | <i>Corvus brachyrhynchos</i> / American crow | N |
| | Alaudidae / Larks | <i>Eremophila alpestris actia</i> / California horned lark | N |
| | Aegithalidae / Bushtit | <i>Psaltiriparus minimus</i> / bushtit | N |
| | Troglodytidae / Wrens | <i>Thryomanes bewickii</i> / Bewick's wren | N |
| | | <i>Troglodytes aedon</i> / house wren | N |
| | Turdidae / Thrushes | <i>Sialia mexicana</i> / western bluebird | N |
| | Sylviidae / Babblers | <i>Chamaea fasciata</i> / wrentit | N |
| | Mimidae / Mockingbirds & Thrashers | <i>Mimus polyglottos</i> / northern mockingbird | N |
| | | <i>Toxostoma redivivum</i> / California thrasher | N |
| | Parulidae / Wood Warblers | <i>Setophaga [=Dendroica] coronata</i> / yellow-rumped warbler | N |
| | Passerellidae / New World Passerines | <i>Melospiza melodia</i> / song sparrow | N |
| | | <i>Melospiza [=Pipilo] crissalis</i> / California towhee | N |
| | | <i>Pipilo maculatus</i> / spotted towhee | N |

| Attachment 3 Wildlife Species Observed | | | |
|--|--------------------------------------|---|--------|
| Major Wildlife Group | Family | Scientific / Common Name | Origin |
| Birds (cont.) | Passerellidae / New World Passerines | <i>Zonotrichia leucophrys</i> / white-crowned sparrow | N |
| | Fringillidae / Finches | <i>Haemorhous</i> [= <i>Carpodacus</i>] <i>mexicanus</i> / house finch | N |
| Mammals | Leporidae / Rabbits & Hares | <i>Sylvilagus bachmani</i> / brush rabbit | N |
| | Sciuridae / Squirrels & Chipmunks | <i>Otopermophilus</i> [= <i>Spermophilus</i>] <i>beecheyi</i> / California ground squirrel | N |
| | Geomyidae / Pocket Gophers | <i>Thomomys bottae</i> / Botta's pocket gopher | N |
| | Canidae / Canids | <i>Canis latrans</i> / coyote | N |
| ORIGIN N =Native to locality. I = Introduced species from outside locality. | | | |