GREENHILLS RANCH PRESERVE
HABITAT MANAGEMENT PLAN
ANNUAL REPORT
2013

Prepared by:

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GREENHILLS RANCH PRESERVE
ANNUAL REPORT
2013
County of San Diego, California

Prepared for:

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Planning & Development Services
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JANUARY 2014

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1.0 INTRODUCTION

This annual monitoring and management report summarizes the activities and results of the 2013 habitat management activities, the Initial and Capital activities, conducted within the Greenhills Ranch Preserve which is owned by the Greenhills Ranch Home Owners Association (HOA). This report was prepared to demonstrate the management actions implemented during the 2013 habitat management year to meet the goals of the Habitat Management Plan (HMP; Scheidt 2006).

As stated in the HMP, the purpose of the HMP is to define specific measures to ensure the long-term viability of the conserved preserve through monitoring and maintenance activities designed to protect the resources in perpetuity. The HMP provides a framework of the management of the preserve. Habitat Restoration Sciences Inc. (HRS) is providing habitat management on behalf of the current owner. HRS began the management of the preserve in July 2013 upon receipt of the management funds on June 27, 2013. During that time, Initial and Capital tasks were undertaken by HRS. HRS will initiate the Ongoing tasks in June of 2014. HRS habitat restoration specialist/monitor Kyle Matthews and habitat manager Anita Hayworth, PhD. conducted habitat management visits and tasks during the 2013 period. The Habitat Manager is in turn responsible to the County's HMP Administrator (Beth Ehsan), who has final authority over the preserve area.

1.1 Project Location and Setting

The Greenhills Ranch property consists of an irregularly-shaped, 92.94-acre parcel of mostly vacant land located west of Lake Jennings in central San Diego County in the Lakeside area east of the City of El Cajon (Figures 1 and 2). The entire property is located in the Metro-Lakeside-Jamul Segment of County's Subarea Multiple Species Conservation Program, with the majority of the site acreage in a Pre-approved Mitigation Area. Phase I of the development project consists of 51.9 acres, with Phase II (a Future Planning Area) consisting of 41.04 acres. Phase I consists of 32 proposed residential lots on 8.25 acres, with a total of 39.5 acres to be protected in biological open space. The subject property may be described as consisting of a series of relatively steep slopes, with scattered rock outcrops and dense sage scrub covering most undisturbed areas.

Elevations on the Greenhills Ranch property range between approximately 782 feet MSL on the highest point near the east-central end of the property (Phase II), and 472 feet MSL at the lowest point near the terminus of Sohail Drive near the site's northwestern corner (Phase I). Soil types found on site include Visalia gravelly sandy loam soils (VaB) on flattish areas between 2–5% slope gradient, Escondido very fine sandy loam soils (EsD2) and Ramona sandy loam soils (RaD2) on gentle slope areas with a gradient between 9–15%, Escondido

very fine sandy loam soils (EsE2) on steeper slopes with a gradient ranging between 15–30%, Friant fine sandy loam soils (FwF) on steep slope areas between 30–50% gradient, Friant rocky fine sandy loam soils (FxG) on other steep slope areas with gradients between 30–70%, and Vista course sandy loam soils (VsG) on certain slope areas ranging between 30–65% gradient.

1.2 Background

The Greenhills Ranch property was surveyed for biological resources, including California gnatcatcher (*Polioptila californica*) and other sensitive species, in April and May of 1995 and April 2001 (Scheidt 2002). Four plant associations were identified during the survey. These are; (1) Diegan Coastal Sage Scrub in various configurations, depending on slope, aspect, and history of use, (2) a hydroseed-based Encelia (Brittlebush) Scrub in an area which had been cleared and replanted with Brittlebush *(Encelia farinosa)*, (3) weedy, ruderal, and/or barren Disturbed Habitat areas associated with several residential sites and including an area brushed in compliance with an implemented Habitat Loss Permit (HPL#94-007), and (4) Eucalyptus Woodland on two disjunct edge areas of the property. One hundred and forty-four plants were identified, three of which are considered special status species including San Diego County Viguiera (*Bahiopsis laciniata*) and Prostrate Spineflower (*Chorizanthe procumbens*). Forty-five species of vertebrate animals were identified. Nine of these are considered sensitive. These are San Diego Cactus Wren (*Campylorhynchus brunneicapillus sandiegensis*), California Gnatcatcher, Southern California Rufous-crowned Sparrow (*Aimophila ruficeps canescens*), Silvery Legless Lizard (*Anniella pulchra*), Coronado Skink (*Eumeces skiltonianus interparietalis*), San Diego Black-tailed Jackrabbit (*Lepus californicus bennettii*), and Mule Deer (*Odocoileus hemionus*).

The Greenhills Ranch Grading Plan, L-14865, had a condition of Approval that required the applicant to prepare a Habitat Management Plan. The Plan (Scheidt 2006) was prepared in 2005 and deemed to have satisfied the condition on September 19, 2006. At that time, the applicant was Russ Earnshaw. Since that time the applicant changed to Development Solutions 1GRH, LLC (DS1) and was approved under that applicant on July 2, 1013.

As part of the approval process for the Greenhill Ranch Grading Plan, an open space easement was granted to provide mitigation for the impacts of the project thus creating the Greenhills Ranch Preserve. The Open Space Easement was recorded September 28, 2006 as document 2006-0691608 and includes a total of 39.5 acres located to the north, east and south of the development area (Figure 3). The mitigation was pursuant to the Mitigated Negative Declaration for TM5140RPL; SP98-004; R 98-006 and LOG No. 98-14-020.

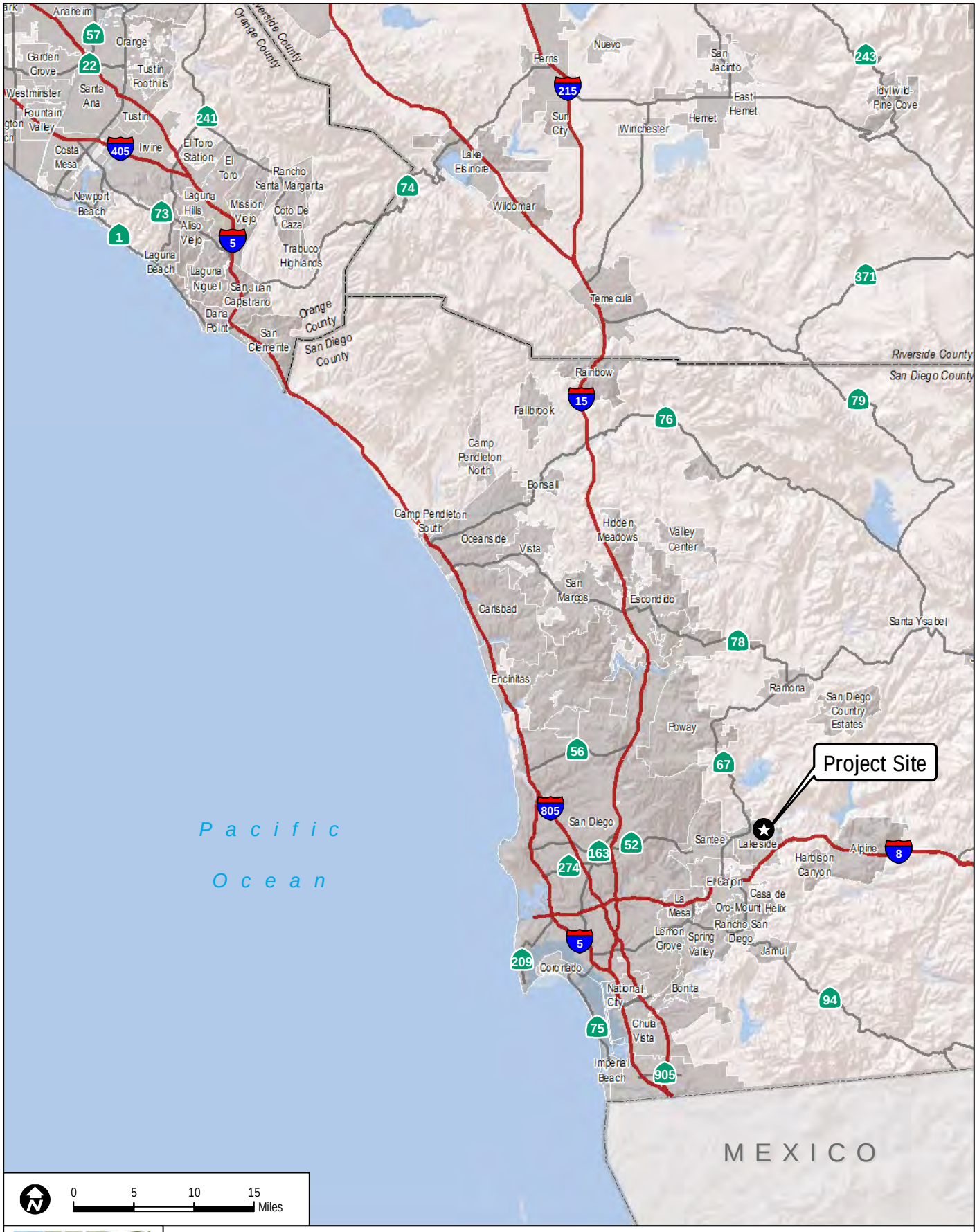

FIGURE 1
Regional Map

Green Hills Ranch Preserve Annual Report

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Habitat Restoration Sciences, Inc.

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SOURCE: USGS 7.5-Minute Series Quadrangle.

FIGURE 2

Vicinity Map

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Green Hills Ranch Preserve Annual Report

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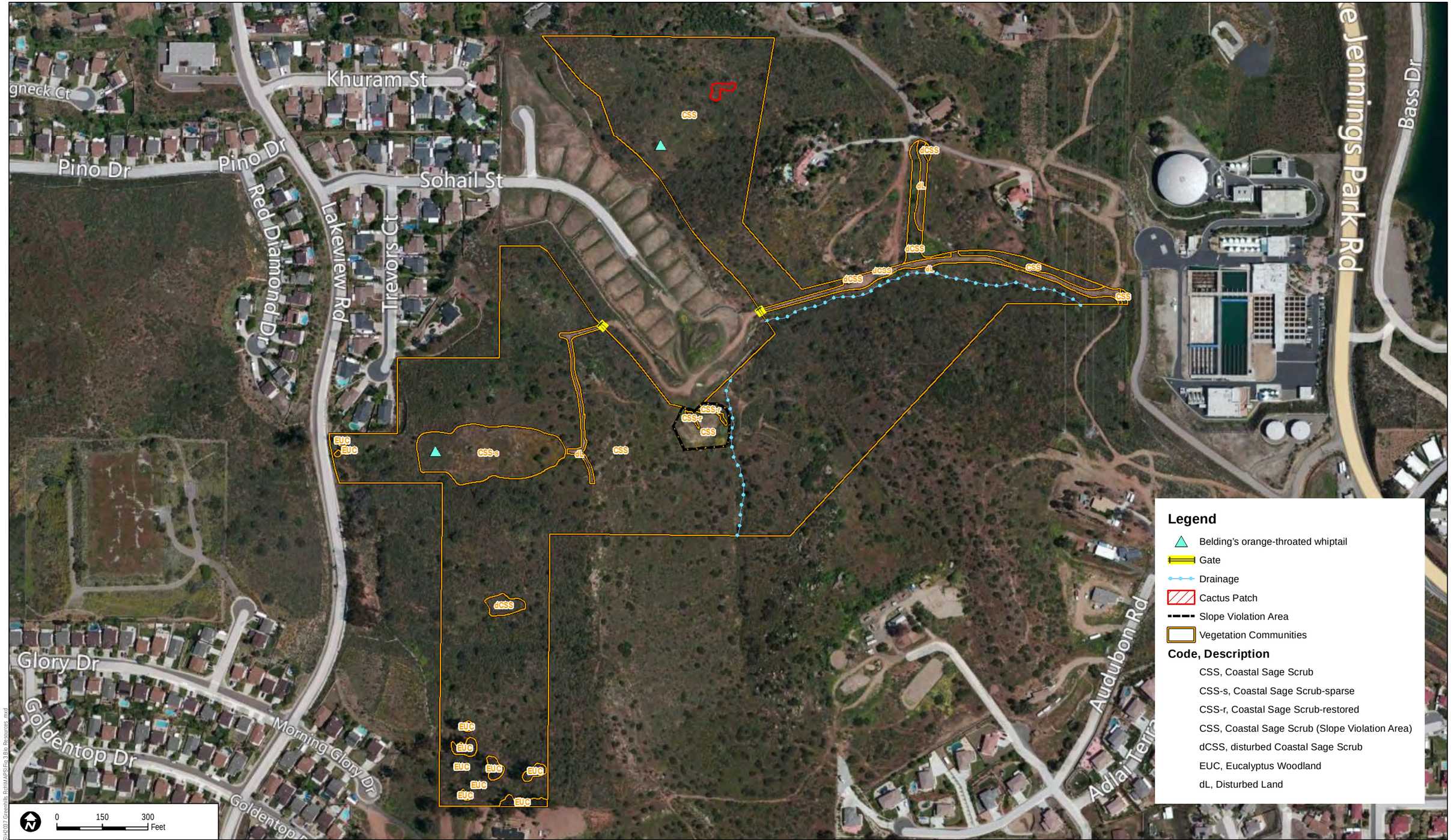

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HRS Habitat Restoration Sciences, Inc.

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AERIAL SOURCE: BING MAPPING SERVICE

FIGURE 3

Biological Resources Map

Green Hills Ranch Preserve Annual Report

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1.3 Habitat Restoration

Within the Greenhills Ranch Preserve, there is a small area of restoration that was installed in May of 2013. A restoration plan was prepared and approved by the County (Appendix A; RLP 3967 12-003). The revegetation site consists of grading needed within a 0.52 acre area south of the terminus of Sohail Street, and outside of the approved development footprint. It is centered at approximately 32° 51’ 06.44” N and 116° 54’ 00.92” W, with an approximate elevation of 575 feet above mean sea level. The revegetation project is for contour grading and planting within 0.52 acre of coastal sage scrub (CSS) that was disturbed by stockpiling of soil outside of the permitted development boundary permitted for the Greenhills Ranch Development Project. The grading included two small areas that are 0.03 and 0.02 acre (Figure 3). This stockpiling occurred in an area designated for habitat preservation. This disturbance was created by the previous owner/developer. Details about the restoration are included in the Restoration plan (Dudek 2013). An annual report will be prepared on the anniversary of the restoration installation (June 2014) and will be included in the annual report for the preserve for 2014.

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2.0 HABITAT MANAGEMENT ACTIVITIES

The main goals for biological management of the Preserve are to provide effective long-term management of the preserve focused on controlling access and implementing a proactive monitoring program. The HMP acknowledges that natural open space preserves supporting mostly undisturbed native vegetation require very little intervention with the exception for the control of invasives, the removal of litter, and the maintenance of fencing and signage.

2.1 Field Visits

The Initial work tasks were started on July 1, 2013. These tasks were conducted as outlined in the HMP. Field visits were conducted on regular basis to implement a variety of management tasks. ranging from routine monitoring of the open space areas identifying areas of concern to vegetation mapping. Unless otherwise stated, all tasks were performed by HRS Preserve Manager Anita Hayworth Ph.D. and restoration biologist Kyle Matthews (Table 1).

Table 1
Schedule of Surveys

Date	Hours	Personnel	Focus	Conditions
8/23/2013	0800–1400	Kyle Matthews Anita Hayworth	Site overview Vegetation mapping Fencing and signage review Weed review	85 F, sunny, 0–1 mph
11/14/2013	0900–1300	Kyle Matthews Anita Hayworth	Site overview Cactus pad harvest Fencing and signage review	81 F; sunny; 0–1 mph wind
11/20/2013	0800–1700	Jon Stfford Martinez Rafael Field crew	Cactus pad harvest	Not recorded
12/12/2013	0800–1700	Martinez Rafael Field crew	Cactus pad harvest	Not recorded

Funds were received mid-year of 2013 after most annual plant species had finished with their blooming period. In addition, the annual weeds, if any were present, were also completed with their growth cycle and were generally not detectable except for dead standing material. Thus the weed issues were not as visible as during the growth cycle. Finally, most breeding birds had finished breeding for the year. Thus focused surveys were not conducted in 2013 but will be done within the first year of having initiated management during the appropriate season. Hence, focused surveys for seasonal species will be conducted in Spring of 2014. Tasks that were completed in 2013 included vegetation mapping and quantification of vegetation

communities, site overview to understand threats and issues, harvesting of prickly pear cactus to use for the required cactus restoration plan, and an overview of species present. Weather conditions were generally not favorable for preparing a thorough species list so that task will be conducted in spring 2014 within the first year of management.

Summary of Tasks and Goals for the 2013 Year:

- Inspected and repaired or replaced fencing as necessary
- Patrolled and conducted site review
- Removed trash
- Noted all animal species observed and mapped locations of any special status species
- Prepared vegetation mapping
- Cactus pad harvest
- Took site photos at established photo locations
- Reported and describe data collected and management actions taken on the Preserve to the County

2.2 Capital Improvements

Capital improvements were installed during 2013. These improvements included installation of fencing and signs. The cost for these capital improvements was paid directly by the landowner and did not come from the endowment for the preserve. The site also was reviewed for large trash items which DS1 would remove. No such items were present on the site. Weeds, if problematic, also would have been removed by DS1. No such problem issues were detectable. Erosion issues on the existing SDG&E access were reviewed. SDG&E is currently managing and maintaining the access so no erosion issues were detected. DS1 was responsible for developing a cactus restoration plan. Because HRS is in a more appropriate position to develop and implement such a plan, HRS is in the process of developing the plan to be completed and implemented within the first year of management.

2.3 Long-Term Management

A complete biological inventory has not yet been conducted for the Greenhills Ranch Preserve within this first 6 months of Initial management tasks. During 2013, the vegetation was mapped, prickly pear cactus (*Opuntia littoralis*) pads were harvested from the development area in order to implement the cactus restoration plan. While the plan has not been completed, it is being prepared. The cactus pads were harvested since the patch of cactus was within the development area and was proposed to be removed when the landscaping for the lot is installed. Within the

next year of management, visits will be made to provide a full inventory of the preserve including surveys for California gnatcatcher, rare plants, and special status species. Surveys could not be conducted during 2013 because most of the annual rare plants would not be detectable and it was too late to conduct a protocol gnatcatcher surveys.

Fencing and Signage Inspection

Fencing had just been installed in the early fall of 2013. Thus fencing and signs were in good condition and intact. No repairs or replacements were necessary.

Patrolled and Conducted Site Review

A complete walkover of the site was conducted to review weed and trespass issues. There is some evidence that there are some weeds present including mustard species however because of the late timing of the visit, the overall invasiveness could not be assessed. Weed issues will be evaluated in spring 2014.

Trash Removal

Some trash was present and removed during the site visits in August and November, however trash is not an issue and no dumping areas or large trash piles are present.

Special Status Species

Two observations were made of Belding's Orange-throated whiptail were made during the site visits (Figure 3). Additional observation will be recorded during upcoming focused surveys of the site in spring 2013.

Vegetation Mapping

Vegetation communities were mapped in 2013 by Anita Hayworth, Ph.D. Vegetation communities were mapped in the field directly onto a 200-scale (1 inch = 200 feet) false-color digital orthographic map of the property. These boundaries and locations were digitized by Dudek Global Information Systems (GIS) technician Lesley Terry using ArcGIS software. A geographic information system (GIS) coverage was created using ArcCAD to calculate acreages of each vegetation type and impacts of the proposed project.

Vegetation communities and land covers used in this report follow the Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986), with modifications to accommodate the lack of conformity of the observed communities to those of Holland (1986). Community classifications were selected based on site factors, descriptions, distribution, and characteristic species present within an area. Information such as dominant

species and their associated cover classes, aspect, canopy height, and visible disturbance factors were recorded.

Visits to the Greenhills Ranch Preserve confirmed that in general the habitat is in very good condition. The habitat is almost as originally mapped. Based on species composition and general physiognomy, eight vegetation communities (or habitat types) were identified within the Greenhills Ranch Preserve: coastal sage scrub including sparse, disturbed, and restoring, disturbed land, and eucalyptus woodland. These habitat types are described below, their acreages are presented in Table 2 and their locations are shown in Figure 3. Species recorded during the visits are presented in Appendix B for the plant species and Appendix C for the wildlife species.

Table 2
Habitat Types and Acreage of the Greenhills Ranch Preserve – 2013

Habitat Type	Acres
Coastal Sage Scrub	35.6
Coastal Sage Scrub-sparse	1.6
Coastal Sage Scrub- disturbed	0.5
Violation Area – future CSS	0.5
Disturbed Land	0.9
Eucalyptus Woodland	0.4
Total	39.5

Coastal Sage Scrub

Coastal sage scrub is a native plant community composed of a variety of soft, low, aromatic shrubs, characteristically dominated by drought-deciduous species such as California sagebrush (*Artemisia californica*), flat-top buckwheat (*Eriogonum fasciculatum*), and sages (*Salvia* spp.), with scattered evergreen shrubs, including lemonadeberry (*Rhus integrifolia*), laurel sumac (*Malosma laurina*), and toyon (*Heteromeles arbutifolia*). It typically develops on south-facing slopes and other xeric situations.

Coastal Sage Scrub covers the majority of the Greenhills Ranch property. This high-profile, native plant community is indicated by California Sage brush *(Artemisia californica)* and Flat-top Buckwheat *(Eriogonum fasciculatum)*, with scattered Laurel Sumac *(Malosma laurina)* and other native shrubs in lesser numbers. In addition to these indicators, the south-facing, more xeric and open slopes support numerous annual herbaceous plants including spineflowers *(Chorizanthe, Lastarriaea)*, pincushions *(Chaenactis)*, Small-seed Sand Mat *(Chamaesyce polycarpa)*, Parry's Phacelia *(Phacelia parryi)*, California Poppy *(Eschscholzia californica)*, and many others. These annuals are very common on the driest slope areas. More mesic, north-

facing slopes support White Sage *(Salvia apiana)*, Poison Oak *(Toxicodendron diversilobum)*, Yellow Bush Penstemon *(Keckiella antirrhinoides)*, and others forming a dense, mostly closed canopy. Areas of the sage scrub which show signs of historical disturbance contain substantial amounts of Broom Baccharis *(Baccharis sarothroides)*, Horehound *(Marrubium vulgare)*, and other perennials and certain annuals which are opportunistic on disturbed substrates and persistent within revegetating Diegan Coastal Sage Scrub.

Eucalyptus Woodland

A small portion of the Greenhills Ranch property at the southern end supports a Eucalyptus Woodland plant association indicated by an open stand of Murray Red Gum *(E. camaldulensis)*, a non-native tree common in developed areas of San Diego County. This and related *Eucalyptus* species produce allelopathic substances within their downfall litter. Allelopathic substances inhibit the germination, growth, and development of many other plants; thus limiting competition for space, nutrients, and water to a significant degree. Because of this, understory species beneath a Eucalyptus Woodland tend to be either poorly developed or mostly weedy and tolerant of the effects of this litter. Understory species observed on the Greenhills Ranch site include Ripgut Brome *(Bromus diandrus)*, Thistle *(Carduus tenuiflorus)*, Perennial Mustard, Tocalote *(Centaurea melitensis)*, and various straggly native shrubs such as Hazardia *(Haplopappus squarrosus)*, Flat-top Buckwheat, and others. The tall trees within this area provide limited habitat value to local resident birds, including Housefinch *(Carpodacus mexicanus)*, Lesser Goldfinch *(Carduelis psaltria)*, and various other species.

Disturbed Habitat

For purposes of this document, disturbed habitat includes all dirt paths and graded areas that lack vegetation.

Cactus Restoration

During 2013, site visits were made to the development area of Greenhills Ranch in order to harvest cactus pads from the prickly pear clumps that are present within the development area. The development will be installing landscaping and HRS was interested in collecting cactus that originated at the site to use for the restoration plan. HRS has also been preparing the cactus restoration plan as outlined in the HMP. While DS1 is responsible for the development of the plan, HRS is highly qualified and experienced at preparing such plans and agree to prepare it. The plan will be included in the 2014 annual report for the preserve.

Cactus is generally restricted to two small patches within the preserve (Photo 1). The patches show no sign of being occupied by cactus wren and perhaps were never used for nesting.

Regardless, enlarging the available cactus onsite may provide additional habitat opportunities for the species. Cactus wren is known to be present nearby at Lake Jennings Park.

Photo 1. View of the cactus patch in the northern portion of the site.

Photo Documentation

Photo points (Figure 4) were established in August 2013 and photos were taken. In general, the site is in good condition. While the current season has been dry, the vegetation is still intact and relatively green. Figure 5 provides the photos taken in 2013.

AERIAL SOURCE: BING MAPPING SERVICE

FIGURE 4

Photo Documentation Point Locations - 2013

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Green Hills Ranch Preserve Annual Report

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Photo 1

Photo 2

Photo 3

Photo 4

Photo 5

Photo 6

FIGURE 5
Site Photographs (August 23, 2013)

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3.0 FUTURE MANAGEMENT ACTIVITIES

Ongoing management of the open space area will continue as per the requirement of the HMP. Issues expected to be of primary concern for management year 2014 are provided below.

Invasive Species Management

- Initiate ongoing efforts including,
  - Visit the site in spring and map areas of invasive species
  - Prioritize and implement eucalyptus reduction program
  - Implement weed control as needed.

Trash, Trespass, Fencing and Signage

The preserve will be periodically visited to document and maintain fencing and signs. Trash will be removed. Unauthorized trails/access to sensitive areas will be evaluated and reviewed for the need for additional signage or barriers.

Monitoring

- Conduct focused surveys for California gnatcatcher
- Conduct focused surveys for rare plants
- Document locations of any other covered species.

Education:

- HOA Meeting attendance.

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4.0 REFERENCES

Dudek. 2013. Revegetation Plan for the Greenhills Ranch Stockpile Restoration Project. RLP 3967 12-003. Prepared for the County San Diego.

Scheidt, Vince. 2002. A Biological Resources Survey Report for Phase I - The Greenhills Ranch Subdivision SP98-004, TM 5140, R98-006. County of San Diego. Prepared for Mr. George Goodman, Multitech Properties, Inc.

Scheidt, Vince. 2006. A Habitat Management Plan for the Greenhills ranch Project: Grading Plan L-14865, county of San Diego. Prepared for Greenhills Ranch Development Company, LLC C/O Mr. Russ Earnshaw.

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APPENDIX A

Revegetation Plan for the Green Hills Ranch Stockpile

DRAFT

REVEGETATION PLAN
for the
GREEN HILLS RANCH STOCKPILE RESTORATION PROJECT
COUNTY OF SAN DIEGO, CALIFORNIA
Revegetation Landscape Plan #3967 12-003

Prepared for:

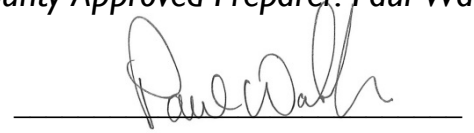
Department of Planning and Land Use
COUNTY OF SAN DIEGO
5201 Ruffin Road, Suite B
San Diego, California 92123-1666
Contact: Mr. Dave Kahler

Applicant:

Development Solutions IGRH, LLC
1901 Camino Vida Roble, Suite 200
Carlsbad, California 92008
Contact: Mr. David Ricci

Prepared by:

DUDEK
605 Third Street
Encinitas, California 92024
County Approved Preparer: Paul Walsh



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Revegetation Plan for the Green Hills Ranch Stockpile Restoration Project

1.0 DESCRIPTION OF THE DEVELOPMENT PROJECT/IMPACT SITE FOR WHICH COMPENSATORY MITIGATION IS REQUIRED

1.1 Responsible Parties

Applicant /Permittee
Development Solutions IGRH, LLC
1901 Camino Vida Roble, Suite 200
Carlsbad, California 92008
Contact: Mr. David Ricci

Restoration Contractor
Habitat Restoration Sciences (HRS)
4901 El Camino Real Blvd., Suite D
Carlsbad, California 92008

Biological Consultant
Dudek
605 Third Street
Encinitas, California 92024

1.2 Location of the Development Project

The Greenhills Ranch Project Site is located at the end of Sohail Street in the Lakeside area of central San Diego County, east of the City of El Cajon. The revegetation site described herein consists of grading needed within a 0.52 acre area south of the terminus of Sohail Street, and outside of the approved development footprint. It is centered at approximately 32° 51’ 06.44” N and 116° 54’ 00.92” W, with an approximate elevation of 575 feet above mean sea level (Figures 1–3).

1.3 Summary of Overall Development Project with Proposed Mitigation

Green Hills Ranch is a subdivision project that was partially graded but not finished. Currently, the subdivision consists of one paved street (Sohail Street) and 22 graded lots.

The revegetation project is for contour grading and planting within 0.52 acre of coastal sage scrub (CSS) that was disturbed by stockpiling of soil outside of the permitted development boundary permitted for the Greenhills Ranch Development Project. This stockpiling occurred in an area designated for habitat preservation. This disturbance was created by the previous owner/developer and is now being corrected by the present owner, Development Solutions IGRH, LLC.

1.3.1 Current Environmental Setting and Site Conditions

A site investigation was performed by Habitat Restoration Biologist Christopher Oesch of Dudek and Project Manager Matt Major of HRS on September 6, 2012. This investigation evaluated the conditions of the 0.52 acre revegetation site and the surrounding vegetation communities.

The stockpiled soil has recruited both native and non-native vegetation consistent with species found in the surrounding area of the project. The site has approximately 65–75% vegetative cover with native perennial species. The understory is dominated by non-native annual species. The evidence for this is provided in the largely vegetated area within the proposed revegetation area on Figure 3. Minor erosion is evidence where the slopes are near vertical at the edges of the soil stockpile. These areas are shown on Figure 3.

1.3.2 Project Size

The revegetation site is located within the 0.52 acre stockpile area. It consists of a 0.03 and 0.02 acre area.

1.3.3 Topography

Topography of the site consists of a moderate slope to the east, northeast, with elevation ranging from approximately 590–540 feet above mean sea level. Abrupt drop-offs ranging from 3–10 feet are present on the edges of the downslope side. The site is located within an undeveloped open space basin.

1.3.4 Vegetation Types

The vegetation community context of the site and surrounding area is CSS (Holland Code 32000). Vegetation on the 0.52 acre site is dominated by broom baccharis (*Baccharis sarothroides*), California buckwheat (*Eriogonum fasciculatum*) and California sagebrush (*Artemisia californica*). The herbaceous layer is dominated by star thistle (*Centaurea melitensis*), mustards (*Brassica* spp.) and annual non-native grasses. The main invasive perennial present is tree tobacco (*Nicotiana glauca*). The site is approximately 65–75% vegetated with native perennial shrubs.

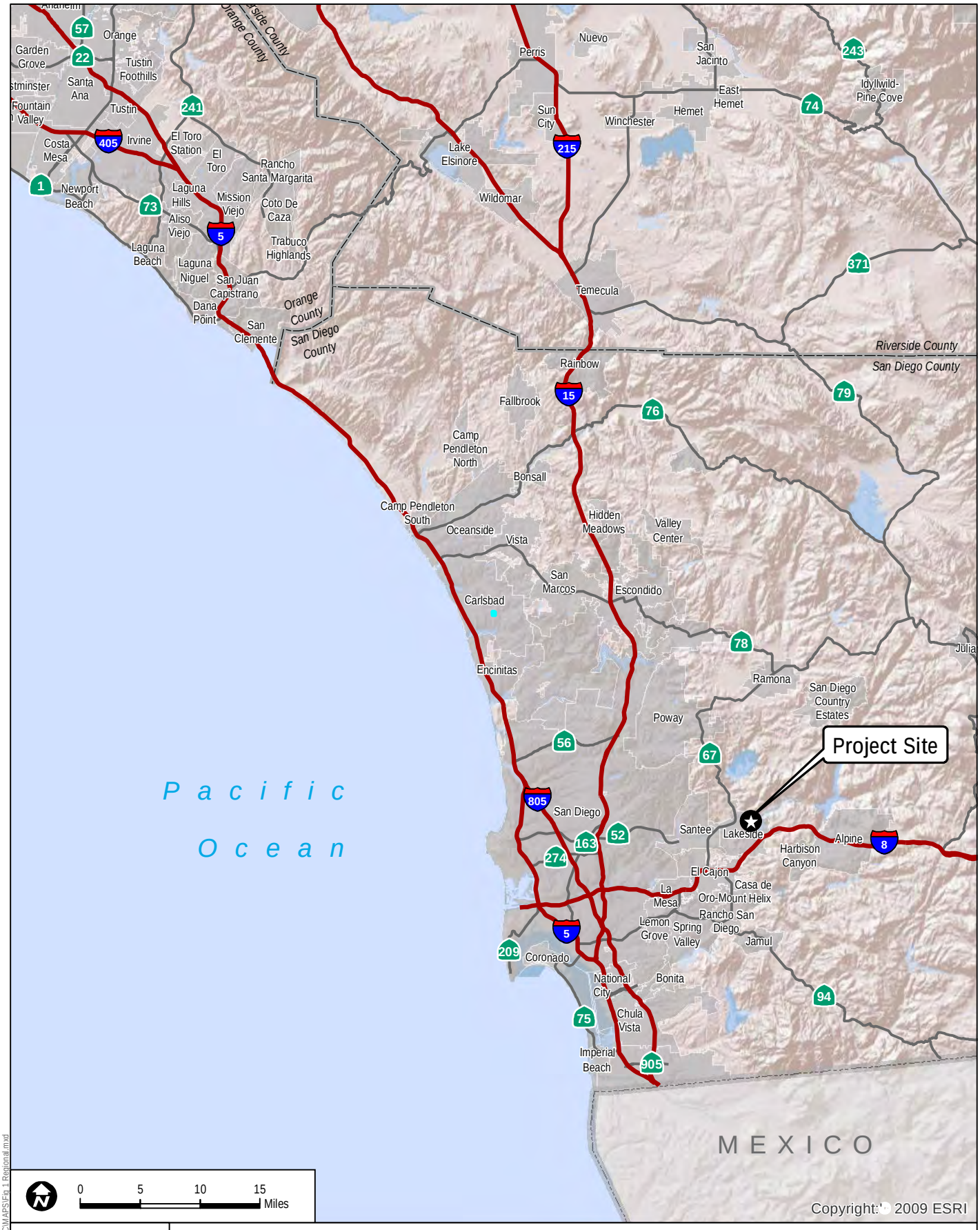

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FIGURE 1

Regional Map

Green Hills Stockpile Restoration Project

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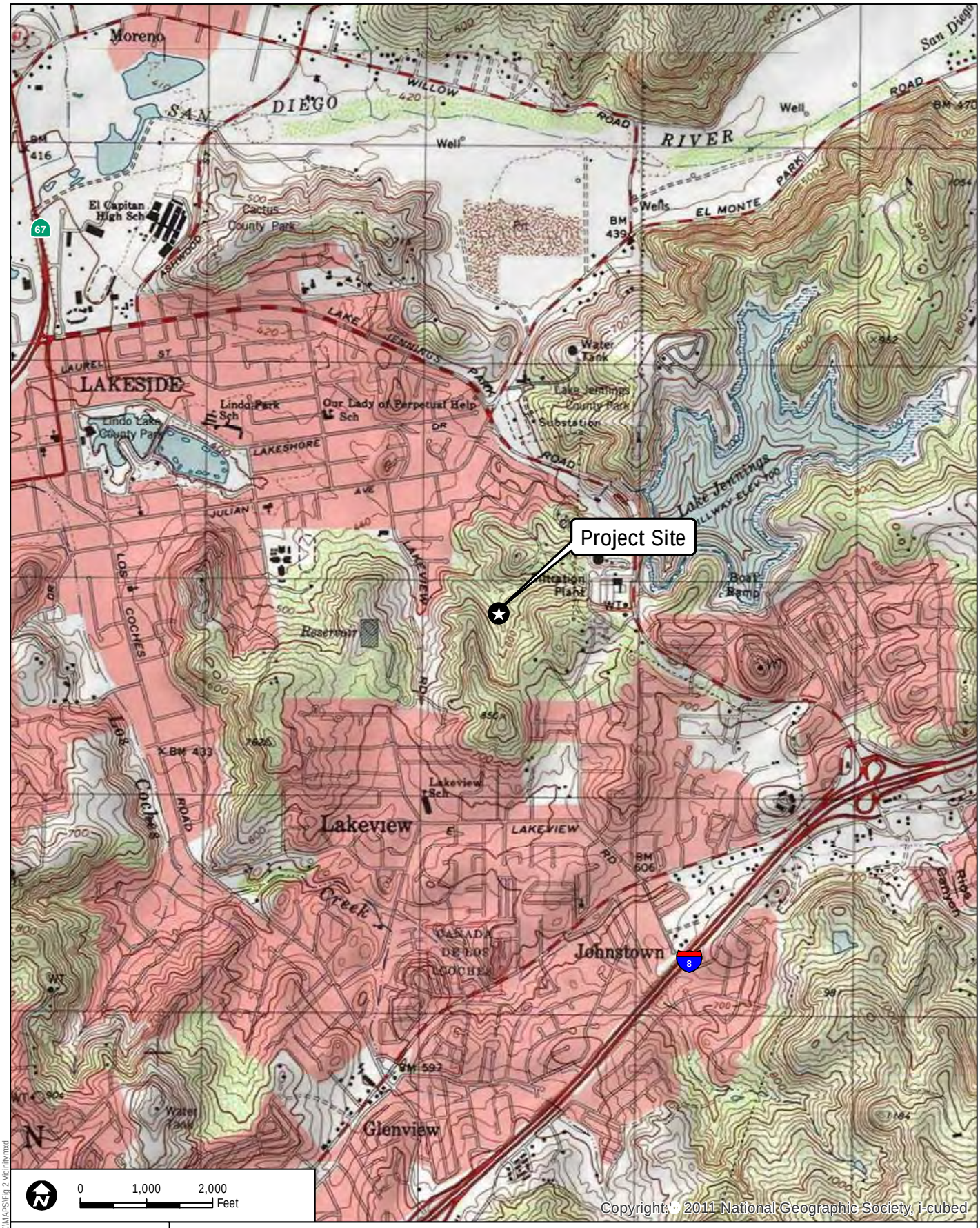

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SOURCE: USGS 7.5-Minute Series Quadrangle.

FIGURE 2
Vicinity Map

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FEBRUARY 2013

Green Hills Stockpile Restoration Project

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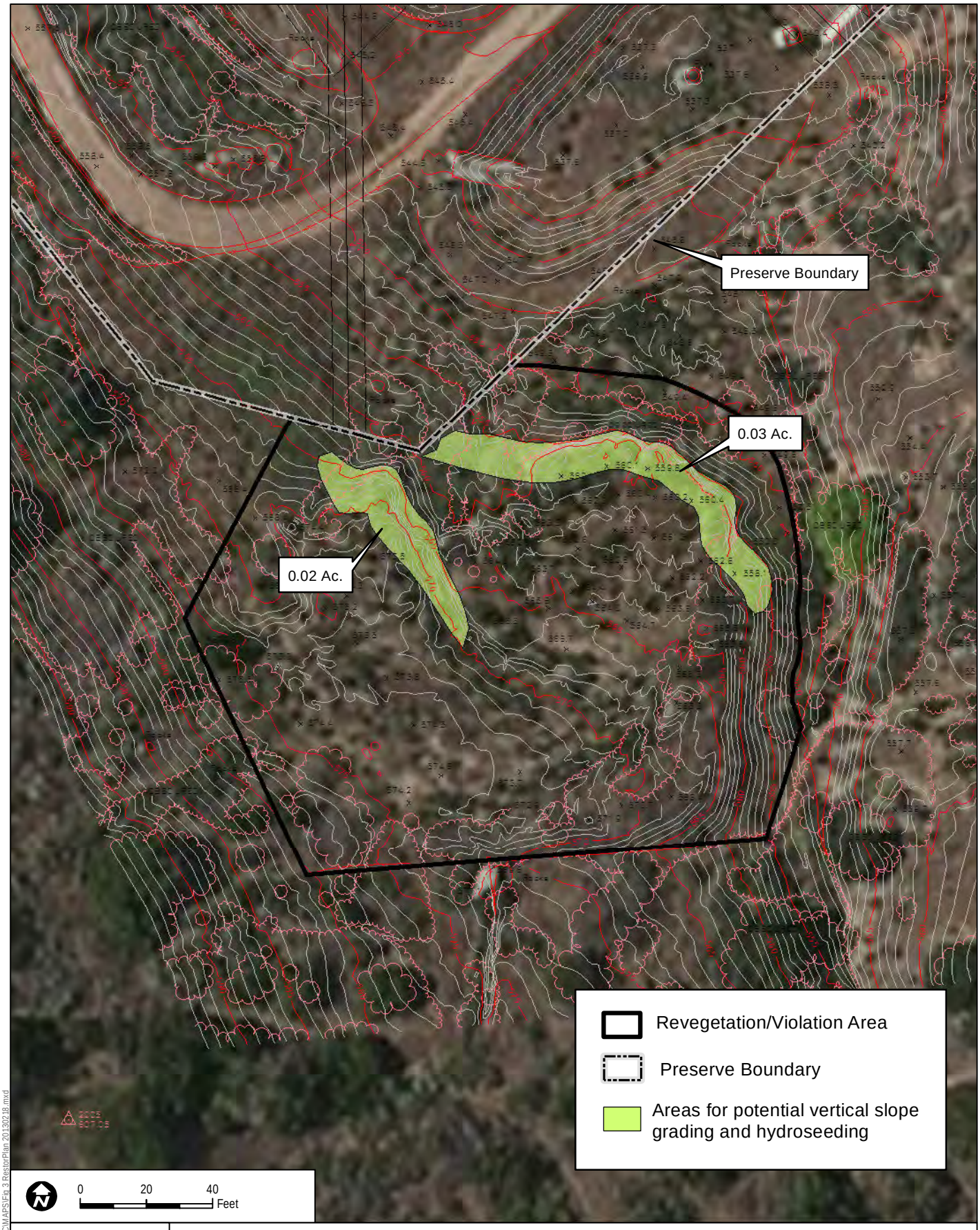

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FEBRUARY 2013

SOURCE: GILLESPIE MOODY PATTERSON, INC. 2013

FIGURE 3

Proposed Restoration and Slope Grading Areas

Green Hills Stockpile Restoration Project

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1.3.5 Wildlife

No recent focused wildlife surveys were performed; however, a Coastal California gnatcatcher (*Polioptila californica californica*) (CAGN) was heard vocalizing nearby during the site visit. This species likely uses the revegetation area since it is also composed of suitable habitat for the species.

Identified in the pre-project 2006 biotechnical report by Scheidt, forty-five species of vertebrate animals were observed during the biological survey conducted for the original development permit application and Habitat Management Plan for the Greenhills Ranch Project.

1.3.6 Sensitive Species

No recent focused botanical surveys were conducted. No special status species were observed during the site visit.

Three sensitive plant species and ten sensitive animal species were previously identified on or near the project site as described in the pre-project 2006 biotechnical report by Scheidt. These are; San Diego County Viguiera (*Viguiera laciniata*), prostrate spineflower (*Chorizanthe procumbens*), ashy spike-moss (*Salaginella cinerascens*), San Diego cactus wren (*Campylorhynchus brunneicapillus sandiegensis*), California gnatcatcher (*Polioptila californica*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), silvery legless lizard (*Anniella pulchra*), Coronado skink (*Eumeces skiltonianus interparietalis*), western spadefoot (*Scaphiopus hammondii*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), mule deer (*Odocoileus hemionus*), turkey vulture (*Cathartes aura*), and Bewick's wren (*Thryomanes bewickii).* Although not previously detected, other sensitive species with a potential to occur on or near the project site include; San Diego coast horned lizard (*Phrynosoma conronatum blainvillei*) and orange-throated whiptail (*Aspidoscelis hyperythra beldingi*).

1.3.7 Biological Studies

A site investigation was conducted on September 6, 2012, to observe current conditions on the site. No recent focused biological surveys were conducted.

A biological survey was conducted for the original development permit application and Habitat Management Plan for the Greenhills Ranch Project. Results are presented in the pre-project 2006 biotechnical report by Scheidt.

1.3.8 Sensitive Resources Effected, by Habitat

CSS vegetation community is present on site, which is known to be habitat for CAGN. The species was observed near, but not within the site, but likely uses the site. Given that no removal of native vegetation is anticipated to occur during implementation of this project, no significant impacts are anticipated to occur to CAGN habitat on site.

1.3.9 Types, Functions and Values of Habitat to be Restored

This plan proposes to restore CSS vegetation within the 0.52 acre project site. Functions and services of this action include: soil cover for erosion control, resistance to invasion by non-native perennial and annual plant species, and to provide habitat for CAGN consistent with type and quality of vegetation surrounding the site.

1.3.9.1 Description of Impacts

Impacts for the revegetation described herein consist of stockpiling of soil materials from the Green Hills Ranch development site on a 0.52 acre area outside of the permitted limits of development. This area was previously vegetated with CSS, similar to the site's surrounding vegetation. Impacts and mitigation are shown in Table 1.

Table 1
Impacts and Mitigation Summary

Vegetation Community/ Land Cover Type	Permitting Regulatory Agency	Impact Acreage	Mitigation Ratio	Mitigation Acreage
Coastal Sage Scrub (CSS)	County of San Diego	0.52	1:1	revegetate areas of steep slope

1.3.9.2 Type, Function, and Value Components of Impacted Habitat

Type, functions and value of the impacted site are described above in Sections 1.3 through 1.3.9.

2.0 MITIGATION PROGRAM GOALS

The goal of this mitigation program is to make sure the 0.52 acre of impacted CSS is restored to conditions as good as, or ecologically improved, as compared with pre-impact conditions. This restoration is proposed to occur within the five year or less maintenance and monitoring period. Mitigation will be located within the footprint of the impacts where the slope is approximately vertical.

2.1 Responsibilities

2.1.1 Project Owner

Development Solutions IGRH, LLC.is the owner and permittee of this project, and will be responsible for the successful implementation of this Revegetation Plan (RP). Project management will be provided by Development Solutions IGRH, LLC and, as designated, to the Project Biologist, Dudek. Development Solutions IGRH, LLC shall be financially responsible for implementation and management of this project.

2.1.2 County of San Diego

The County of San Diego (County) is the sole permitting entity for this mitigation action. The County has the authority to review project status, and determine if performance criteria are being met adequately.

2.1.3 Compensatory Mitigation Project Designer

Dudek is acting as the project designer and monitoring biologist (Project Biologist). The Designer ensures that design is adequate to accomplish the goals of the project and meets the County requirements per the *County of San Diego Report Format and Content Requirements, Revegetation Plans* (County of San Diego 2007). The Designer will assist the Owner with project oversight and coordination efforts.

2.1.4 Installation Contractor

HRS is scheduled to perform project installation. The installation contractor is responsible for performing site preparation and project installation in accordance with this RP, per guidance from the Project Biologist, County, and client.

2.1.5 Revegetation Biological Monitor

Dudek is acting as the biological monitor (Project Biologist). The Project Biologist is responsible for performance of project management, contractor oversight, qualitative and quantitative biological monitoring and project reporting as outlined in the RP.

2.1.6 Revegetation Maintenance Contractor

HRS is scheduled to provide maintenance during the five-year maintenance and monitoring period. The maintenance contractor is responsible for weed control, trash removal, erosion control BMP maintenance, remedial actions, pest control and general site maintenance as outlined in the RP.

2.2 Type of Habitat to be Revegetated

Coastal sage scrub (CSS) (Holland code 32000) is the only vegetation community to be established on site. The County is the sole permitting and regulatory entity for this project. No other agencies are currently involved in this violation order. This project is being revegetated to reduce the vertical slopes within the 0.52 acre stockpile site. Impacts and mitigation are shown in Table 1 in Section 1.3.9.1. The nature of this violation is described in Sections 1.2 and 1.3.9.1. The acreage to be contour graded and planted is 0.02 and 0.03 acre in size.

2.3 Functions and Values

A description of the functions and values to be restored is described in Section 1.3.9.

2.4 Time Lapse

The exact date of the stockpiling action is unknown; however, it would have happened prior to the issuance of the Notice of Violation dated April 20, 2010. In addition, the stockpiling would have occurred with sufficient time for vegetation to achieve the coverage and stature observed during the September 2012 site survey by Dudek. From fall of 2012 onward, it is expected that the project will achieve its performance goals by the end of the fifth year of the five year maintenance and monitoring period.

2.5 Cost

A cost estimate is provided in Table 2.

Table 2
Project Cost Estimate

Activity	Estimated Cost
Installation and Year One	
1) Initial Weed Control and Seed Application	$4,000
2) Edge Contour Grading	$3,500
3) Year One Maintenance	$3,000
4) Conceptual Revegetation Plan	$5,860
5) Installation and 120-Day Biological Monitoring	$4,000
6) Year One Biological Monitoring	$4,100
Total	*$24,460*
Year Two	
1) Maintenance	$3,000
2) Biological Monitoring and Reporting	$4,100
3% Inflation Factor	*213.00*
10% Contingency Factor	*731.00*
Total	*$8,044*
Year Three	
1) Maintenance	$3,000
2) Biological Monitoring and Reporting	$4,100
3% Inflation Factor	*213.00*
10% Contingency Factor	*731.00*
Total	*$8,044*
Year Four	
1) Maintenance	$3,000
2) Biological Monitoring and Reporting	$4,100
3% Inflation Factor	*213.00*
10% Contingency Factor	*731.00*
Total	*$8,044.*
Year Five	
1) Maintenance	$3,000
2) Biological Monitoring and Reporting	$4100
3) Irrigation, Temporary Fence and BMP Removal	*$2,000*
3% Inflation Factor	*213.00*
10% Contingency Factor	*731.00*
Total	*$10,044*
Total Project Estimate	$58,636

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3.0 DESCRIPTION OF PROPOSED COMPENSATORY MITIGATION SITE

The compensatory mitigation site is located within the same 0.52 acre impact footprint, and is described in Sections 1.3 through 1.3.9.1.

3.1 Site Selection

The compensatory mitigation site was selected based on where the impact occurred, as the RP outlined herein is for revegetation of on-site impacts. Thus, no other location would be suitable to achieve this goal.

3.2 Location and Size of Compensatory Mitigation Site

Project location and size are described in Section 1.2. The location and size are depicted on Figure 3.

3.3 Functions and Values

Current baseline conditions of the site are described in Sections 1.3.1 through 1.3.9.1. Results from the September 6, 2012, reconnaissance biological survey are described in Sections 1.3.4 through 1.3.7. Target functions and values to be restored are described in Section 1.3.9.

3.4 Jurisdictional Delineation

A jurisdictional delineation was not performed for this revegetation project, as no wetlands, drainages, streams or other waters of the U.S. or State are present on site.

3.5 Present and Proposed Uses

The site is located within a larger open space valley, vegetated primarily with CSS. The site is outside of the development footprint that was originally permitted for Green Hills Ranch. The overall development property is secured with a locked gate and fencing at the entrance. Signs of use by the general public were not evident within the revegetation site at the time of the September 2012 site visit. Past uses of the site include soil stockpile storage.

The proposed use of the revegetation site is to be included in in the contiguously surrounding CSS open space preserve. As part of the open space preserve, public access to the site will be limited. The site is proposed to be revegetated with appropriate native CSS plant species to return it to its pre-impact state. Temporary construction fencing, and/or silt fence may be used to delineate the 0.52 acre site during implementation and the five year maintenance and monitoring

period; however, no permanent fencing or signage is anticipated following project sign-off, as the site will be incorporated into the larger, surrounding open space preserve.

3.6 Reference Sites

The contiguous CSS habitat surrounding the site serves as a reference for determination of appropriate vegetation community, species composition and vegetative coverage. In addition, the site itself is actively recruiting with native CSS plant species. Given that these species are naturally recruiting without human input, it is determined that they are appropriately suited to the revegetation site, and will be allowed to continue to grow and establish. The most abundant native species, both by individual and by overall coverage within the site is broom baccharis, followed by California buckwheat and then California sagebrush. Native species currently provide approximately 65–75% vegetation cover on the site. The most abundant weeds on site are tocalote (*Centaurea melitensis*), mustard (*Brassica* spp). and non-native grasses. The main invasive perennial present is tree tobacco (*Nicotiana glauca*) The non-native invasive species comprise approximately 30% vegetative cover

Performance goals are shown in Table 3, and are based on conditions observed within and around the revegetation site.

Table 3
Performance Criteria for Treatment Area

Year	Minimum Percent Native Cover	Maximum Percent Annual Weed Cover	Maximum Percent Invasive Exotic Perennials	Minimum Average Shrub Height
1	60	40	10	8 inches
2	65	35	5	16 inches
3	70	30	5	24 inches
4	75	25	0	32 inches
5	80	20	0	36 inches

Based on the adjacent undisturbed CSS vegetation, the mitigation area shall have at least three different genera present on site by the end of year five.

4.0 IMPLEMENTATION PLAN FOR THE COMPENSATORY MITIGATION SITE

4.1 Rationale for Expecting Implementation Success

This project proposes to allow natural recruitment of native CSS plant species which are currently observed persisting, reproducing, and increasing in cover on site. In addition, it proposes to utilize other native species observed successfully growing directly adjacent the site. Given that the proposed plant species are observed being successful on site, it is expected that they will continue to be successful during and following the five year maintenance and monitoring period.

4.2 Financial Assurances

Development Solutions IGRH, LLC is the owner and permittee of this project, and will be responsible for the successful implementation of this RP. Development Solutions IGRH, LLC shall be financially responsible for implementation and management of this project.

A revegetation agreement shall be signed and notarized by the property owner following approval of this RP and accompanied by the required security as agreed upon by the County of San Diego.

4.3 Schedule

A tentative schedule for project implementation is shown in Table 4.

Table 4
Anticipated Project Schedule

Timeframe	Activity
March 2013	Weed control, soil contouring, soil preparation, seeding
March/April 2013	Plant establishment period, maintenance and monitoring
April 2013 – March 2014	Year One maintenance and biological monitoring
April 2014-March 2015	Year Two maintenance and biological monitoring
April 2015-March 2016	Year Three maintenance and biological monitoring
April 2016-March 2017	Year Four maintenance and biological monitoring
April 2017-March 2018	Year Five maintenance and biological monitoring
April 2018	Project completion and final sign-off

4.4 Site Preparation

Site preparation will be performed with hand tools, such as shovels, hoes, rakes and other or light mechanical equipment. The only areas within the project site receiving modification to the existing soil contours are where an abrupt edge at the edge of a soil stockpile exist. These abrupt edges will be lowered in gradient and blended into the surrounding topography to reduce potential erosion and tie into topography appropriate to the site context. The locations of the vertical edges and the areas proposed to be graded with the resulting grading contours are shown on Figure 3. Rakes, hoes and other implements may be used for removal of annual weeds to prepare the soil surface for seed application. Perennial weed species may be carefully spot sprayed with a backpack sprayer. No heavy equipment is proposed for use in this project; a small bobcat may be used for contouring.

The site will be accessed from the adjacent dirt road at the end of Sohail Street.

Orange flagging or equivalent will be installed along the boundary of the area to be graded to protect adjacent existing habitat. No impacts to native vegetation outside of the project footprint are authorized herein.

Project implementation is anticipated to start in March of 2013 and be completed by the end of March 2013.

4.5 Planting Plan

Established native species shall be left in place. In areas dominated by annual weeds, or areas of recontouring, the soil surface will be cleared of any existing weeds and, or thatch, so that mineral soils are exposed. The surface shall be raked/roughened as necessary to provide optimal soil-seed contact and adhesion. Removed plant material shall be disposed of appropriately off site. Soil preparation and contouring is described in Section 4.4. Following weed mass removal and soil preparation, a hydroseed mix will be applied to the prepared areas, as shown in Table 5. Areas of weed removal and hydroseed will be recorded by Global Positioning System (GPS) and provided as as-built plans.

Table 5
CSS Plant Palette (0.52 acre)

Botanical Name	Common Name	PLS	Pounds Per Acre
Artemisia californica	California sagebrush	10	4
Bromus carinatus	California brome	85	2
Encelia californica	California bush sunflower	25	4
Eriogonum fasciculatum	California buckwheat	10	4
Hazardia squarrosa	sawtooth goldenbush	30	2
Heteromeles arbutifolia	toyon	50	3

Table 5
CSS Plant Palette (0.52 acre)

Botanical Name	Common Name	PLS	Pounds Per Acre
Isocoma menziesii	coast goldenbush	15	1
Lotus scoparius	deerweed	85	3
Malosma laurina	laurel sumac	70	3
Rhus integrifolia	lemonade berry	75	3
Salvia apiana	white sage	25	3
Salvia mellifera	black sage	40	3
		Total Pounds per Acre	36

Note: All hydroseed mixes shall include seed mix indicated in pounds per acre and virgin wood fiber mulch at 2,500 pounds per acre.

One hydroseed mix is recommended for this project: CSS. Labels for each seed species delivered to the site will be inspected and approved by the Project Biologist prior to mixing and application. The mix is to include the specified seed mix at the prescribed rates per acre; virgin wood fiber mulch at 2,500 pounds per acre; and a commercial binder (Az-Tac or equivalent) at 150 pounds per acre. Seeds shall be from cismontane San Diego County.

All seeds will be clearly labeled showing type of seed, test date, the name of the supplier, and percentage of the following: pure seed, crop seed, inert matter, weed seed, noxious weeds, and total germination content. All material will be delivered to the site in original, unopened containers bearing the manufacturer's guaranteed analysis. All seed mixes will be stored in a dark, cool place and not be allowed to become damp.

Installation during the winter is ideal for allowing establishment during the cooler and wetter time of the year.

While the initial seed application is proposed to consist of hydroseeding, additional seed may be hand broadcast, should the seed not be available at the time of initial hyroseed installation. The contractor should consult the Project Biologist in the event that a given species on the plant palette will not be available for inclusion into the initial hydroseed mix. All seed material will be sourced within cismontane San Diego County.

4.6 Irrigation Plan

No irrigation is proposed for this project. The existing cover is already close to meeting the success criteria. If watering is required, it will be done by hand. However, if the restoration does not appear to be meeting success criteria within the first two growing seasons, temporary irrigation will be used.

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5.0 MAINTENANCE DURING MONITORING

5.1 Maintenance Activities

Site maintenance shall occur regularly throughout the five year maintenance and monitoring period, as directed by the Project Biologist. A maintenance schedule is shown in Table 6. This schedule is intended to begin following project installation.

Table 6
Habitat Revegetation Maintenance Program Schedule (Five Years)

Work Tasks[1]	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Weed Abatement					X			X				
Erosion Control		X			X			X			X	
Resource Protection[2]		X			X			X			X	
Pest Control		X			X			X			X	
Site Cleanup and Maintenance		X			X			X			X	

[1] Maintenance task schedule and frequency will be adjusted, as appropriate, depending on site conditions and in coordination with the Biological Monitor.
[2] As needed during the 5-year program, depending on site conditions.

5.1.1 Weed Control

Non-native plant control measures will include the following: (1) hand removal, (2) cutting with mechanical devices, and (3) herbicide application. Hand removal of non-natives is the most desirable method of control and will be used around individual native plants. Weeds should be pulled when plants are 6–12 inches tall or when they can be positively identified, and prior to the formation of seed heads.

The maintenance contractor should coordinate with the Project Biologist to identify weeds for removal as needed. Chemical herbicide control will be used for perennial species that are low growing and are difficult to control by hand pulling. Any herbicide treatment must be applied by a licensed pest control applicator.

5.1.2 Clearing and Trash Removal

Pruning or clearing of native vegetation will generally not be allowed within the mitigation areas. Deadwood and leaf litter will not be removed and will be left in place. Downed branches and leaf litter provide valuable microhabitats for invertebrates, reptiles, small mammals, and birds. In addition, the decomposition of deadwood and leaf litter is essential for the replenishment of soil nutrients and minerals. Trash will be removed from the mitigation areas by

hand on a regular basis. Trash consists of all anthropogenic materials, equipment, or debris dumped, thrown, washed, blown, and left within the mitigation areas.

5.1.3 Erosion Control BMPs

Erosion control Best Management Practices (BMPs) will be used where necessary to effectively reduce the mobilization and transport of sediments and pollutants from the mitigation sites during initial implementation and during the five year maintenance and monitoring period. Specific use of BMP's will be directed by the Project Biologist based on site conditions.

5.1.4 Pest Control

Pest control shall take place as-needed and as directed by the Project Biologist. There is limited evidence of pest activity.

5.2 Maintenance Schedule

Maintenance schedule is shown in Table 6.

6.0 MONITORING PLAN FOR COMPENSATORY MITIGATION SITE

6.1 Performance Standards for Target Dates and Success Criteria

Performance standards are discussed in Section 3.6 and shown in Table 3

6.2 Target Functions and Values

A description of the target functions and values to be restored is described in Section 1.3.9.

6.3 Target Acreage

Target acreage is 0.52 acre; the same acreage as the impact footprint; the revegetation will cover the areas proposed for contour grading and includes 0.02 and 0.03 acre areas within the 0.52 acre stockpile area.

6.4 Monitoring Methods

Monitoring will consist of qualitative field monitoring visits, and quantitative transect data collection conducted by the Project Biologist to determine initial survival rates and percent cover of native plant species. This assessment will be based on qualitative visual assessments.

Monitoring activities will include regular evaluation of weed species establishment. No plant species listed as problematic and/or invasive by the California Native Plant Society (CNPS), the California Invasive Plant Council (CAL-IPC), or the State of California shall be allowed to naturalize or persist in the mitigation site. No plant species listed as a "noxious weed" by the State of California or the U.S. Federal Government shall be planted or allowed to naturalize or persist within the mitigation site.

Following each site visit, the Project Biologist shall generate a brief Site Observation Report, detailing the condition of the site and any maintenance and/or remedial actions recommended to keep the project on track for meeting its annual performance goals. Copies of the Site Observation Report shall be provided to the County of San Diego, and the contractor.

Monitoring will consist of qualitative field monitoring visits conducted by the Project Biologist to determine germination rates and percent cover. This assessment will be based on qualitative visual assessments using relative methods. These methods will evaluate the progression of the revegetation areas in cover and vegetative structure compared to other areas of the same vegetation type.

Monitoring visits during all years will be conducted to evaluate plant species cover and prescribe any necessary remedial measures. Qualitative evaluation will assess plant mortality, compliance with intended standards, and need for supplemental seeding. Remedial measures will be recommended if native cover does not meet performance criteria.

Permanent vegetation transects will be randomly established within the mitigation site at appropriate representative locations during year one. Transects will be approximately 25 meters long (or based on size and configuration of site), and sampling will utilize the point-intercept method at 0.5 meter intervals along each transect. Permanent photo-documentation stations will be established at permanent data stations to record the progress of the mitigation program and plant establishment over the five year maintenance and monitoring period. Vegetation sampling results will be included in the annual monitoring reports.

6.5 Monitoring Schedule

A monitoring schedule is shown in Table 7.

Table 7
Annual Biological Monitoring Schedule for Years 1 through 5

Work Tasks	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Quarterly Biological Monitoring		X			X			X			X	
Annual Transect Data Collection					X							

The schedule may increase or decrease as conditions necessitate. Transect data collection will occur during the May quarterly visit, before the CSS plant species have gone drought deciduous for the summer season. If CAGN are observed nesting transect, data collection will be postponed accordingly.

6.6 Monitoring Reports

An annual biological monitoring report outlining the results of the progress of the site will be submitted to the County of San Diego at the end of each year during the five year maintenance and monitoring period, no later than the first week of January. The monitoring reports will include the following: describe the existing conditions of the mitigation site derived from qualitative and quantitative data, provide a comparison of annual success criteria with field conditions, identify all shortcomings of the mitigation program, and recommend remedial measures necessary for the successful completion of the mitigation project. Each yearly report will provide a summary of the accumulated data.

Any significant issue or contingency that arises on the job site (e.g., plant survival issues, fire or flooding) shall be reported in writing to the County of San Diego within two weeks from the date of the incident. Accompanying the report shall be a plan for remediation, with an implementation schedule and a monitoring schedule.

7.0 COMPLETION OF COMPENSATORY MITIGATION

When monitoring indicates the project has met the final performance criteria, County of San Diego will be notified upon submitting the last annual report. Before successful mitigation is considered to have been achieved, the native vegetation community will be established and showing signs of successful reproduction. No additional regulatory agency sign-off is required for this project.

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8.0 CONTINGENCY MEASURES

If the final success criteria are not met, the Project Biologist in consultation with County of San Diego will prepare an analysis of the cause(s) of failure(s), such as drought, fire, landslide, flood, etc., and if determined to be necessary by County of San Diego, and propose remedial actions to correct the problems. If the mitigation site has not met the performance criterion, maintenance and monitoring obligations will continue until final project approval/confirmation is obtained.

8.1 Initiating Contingency Procedures

Contingency procedures described in Section 8.0 shall be initiated, as determined by the Project Biologist in consultation with County of San Diego in the event of possible, but unlikely catastrophic circumstances. An analysis shall be performed by the Project Biologist and a site observation report shall be generated outlining the specific conditions of the site, and recommendations for remedial action. These actions shall be coordinated with the client and the maintenance contractor.

8.2 Alternative locations for Contingency Compensatory Mitigation

No alternative site is identified, as this restoration project is for on-site impacts to be restored.

8.3 Funding for Contingency Measures

Development Solutions IGRH, LLC is the owner and permittee of this project, and will be responsible for the successful implementation of this RP. Development Solutions IGRH, LLC shall be financially responsible for implementation and management of this project, including contingency measures necessitated by adaptive management strategies.

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9.0 REFERENCES

County of San Diego. 2007. *County of San Diego Report Format and Content Requirements, Revegetation Plans*. Land Use and Environment Group. San Diego, California, USA. July.

Holland, R. F. 1986. *Preliminary Descriptions of the Terrestrial Natural Communities of California*. California Department of Fish and Game, Natural Diversity Data Base, Sacramento, California, USA.

Scheidt. 2006. *Biotechnical Report for Green Hills Ranch*. San Diego, California, USA.

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APPENDIX B

Vascular Plant Species Occurring Within the Project Site

APPENDIX B
Vascular Plant Species Occurring Within the Project Site

VASCULAR SPECIES

DICOTS

***ADOXACEAE*—MUSKROOT FAMILY**

Sambucus nigra—black elderberry

***ANACARDIACEAE*—SUMAC OR CASHEW FAMILY**

Malosma laurina—laurel sumac

Rhus integrifolia—lemonade sumac

***APIACEAE*—CARROT FAMILY**

* *Foeniculum vulgare*—sweet fennel

Daucus pusillus—American wild carrot

***ASTERACEAE*—SUNFLOWER FAMILY**

* *Carduus tenuiflorus*—winged plumeless thistle

* *Centaurea melitensis*—Maltese star-thistle

Artemisia californica—coastal sagebrush

Baccharis sarothroides—desertbroom

Brickellia californica—California brickellbush

Chaenactis artemisiifolia—white pincushion

Chaenactis glabriuscula—yellow pincushion

Encelia californica—California brittlebush

Encelia farinosa—brittlebush

Eriophyllum confertiflorum—golden-yarrow

Viguiera laciniata—San Diego County viguiera

* *Carduus pycnocephalus*—Italian plumeless thistle

***BORAGINACEAE*—BORAGE FAMILY**

Amsinckia intermedia—common fiddleneck

***BRASSICACEAE*—MUSTARD FAMILY**

* *Brassica nigra*—black mustard

***CACTACEAE*—CACTUS FAMILY**

* *Opuntia ficus-indica*—Barbary fig

Opuntia littoralis—coastal pricklypear

***CHENOPODIACEAE*—GOOSEFOOT FAMILY**

* *Chenopodium murale*—nettleleaf goosefoot

* *Salsola australis*—Russian thistle

***CONVOLVULACEAE*—MORNING-GLORY FAMILY**

Calystegia macrostegia—island false bindweed

Cuscuta californica—chaparral dodder

***CRASSULACEAE*—STONECROP FAMILY**

Dudleya pulverulenta—chalk dudleya

***CUCURBITACEAE*—GOURD FAMILY**

Marah macrocarpa—Cucamonga manroot

***FABACEA*E—LEGUME FAMILY**

* *Medicago polymorpha*—burclover

***LAMIACEAE*—MINT FAMILY**

* *Marrubium vulgare*—horehound

Salvia apiana—white sage

Salvia mellifera—black sage

***MYRSINACEAE*—MYRSINE FAMILY**

* *Anagallis arvensis*—scarlet pimpernel

***MYRTACEAE*—MYRTLE FAMILY**

* *Eucalyptus camaldulensis*—river redgum

***NYCTAGINACEAE*—FOUR O'CLOCK FAMILY**

Mirabilis laevis—desert wishbone-bush

***PHRYMACEAE*—LOPSEED FAMILY**

Mimulus aurantiacus—orange bush monkeyflower

Mimulus breviflorus—shortflower monkeyflower

***PLANTAGINACEAE*—PLANTAIN FAMILY**

Keckiella antirrhinoides—snapdragon penstemon

***POLYGONACEAE*—BUCKWHEAT FAMILY**

Eriogonum fasciculatum—Eastern Mojave buckwheat

***ROSACEAE*—ROSE FAMILY**

Heteromeles arbutifolia—toyon

***SOLANACEAE*—NIGHTSHADE FAMILY**

* *Nicotiana glauca*—tree tobacco

MONOCOTS

***POACEAE*—GRASS FAMILY**

* *Arundo donax*—giant reed
* *Avena barbata*—slender oat
* *Avena fatua*—wild oat
* *Bromus diandrus*—ripgut brome
* *Bromus hordeaceus*—soft brome
* *Festuca myuros*—rat-tail fescue

* signifies introduced (non-native) species

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APPENDIX C

Wildlife Species Occurring Within the Project Site

APPENDIX C
Wildlife Species Occurring Within the Project Site

BIRD

BUSHTITS

***AEGITHALIDAE*—LONG-TAILED TITS AND BUSHTITS**

Psaltriparus minimus—Bushtit

EMBERIZINES

***EMBERIZIDAE*—EMBERIZIDS**

Melospiza melodia—Song sparrow
Melozone crissalis—California towhee
Pipilo maculatus—Spotted towhee

FINCHES

***FRINGILLIDAE*—FRINGILLINE AND CARDUELINE FINCHES AND ALLIES**

Carpodacus mexicanus—House finch
Spinus psaltria—Lesser goldfinch

FLYCATCHERS

***TYRANNIDAE*—TYRANT FLYCATCHERS**

Sayornis saya—Say's phoebe
Tyrannus vociferans—Cassin's kingbird

HAWKS

***ACCIPITRIDAE*—HAWKS, KITES, EAGLES, AND ALLIES**

Buteo jamaicensis—Red-tailed hawk

HUMMINGBIRDS

***TROCHILIDAE*—HUMMINGBIRDS**

Calypte anna—Anna's hummingbird
Selasphorus sasin—Allen's hummingbird

JAYS, MAGPIES AND CROWS

***CORVIDAE*—CROWS AND JAYS**

Aphelocoma californica—Western scrub-jay
Corvus corax—Common raven

MOCKINGBIRDS AND THRASHERS

***MIMIDAE*—MOCKINGBIRDS AND THRASHERS**

Mimus polyglottos—Northern mockingbird
Toxostoma redivivum—California thrasher

NEW WORLD QUAIL

***ODONTOPHORIDAE*—NEW WORLD QUAIL**

Callipepla californica—California quail

PIGEONS AND DOVES

***COLUMBIDAE*—PIGEONS AND DOVES**

Zenaida macroura—Mourning dove

SWALLOWS

***HIRUNDINIDAE*—SWALLOWS**

Petrochelidon pyrrhonota—Cliff swallow

WOOD WARBLERS AND ALLIES

***PARULIDAE*—WOOD-WARBLERS**

Oreothlypis celata—Orange-crowned warbler
Setophaga coronata—Yellow-rumped warbler

WRENS

***TROGLODYTIDAE*—WRENS**

Salpinctes obsoletus—Rock wren
Thryomanes bewickii—Bewick's wren

WRENTITS

***TIMALIIDAE*—BABBLERS**

Chamaea fasciata—Wrentit

REPTILE

LIZARDS

***PHRYNOSOMATIDAE*—IGUANID LIZARDS**

Sceloporus occidentalis—Western fence lizard

Uta stansburiana—Common side-blotched lizard

***TEIIDAE*—WHIPTAIL LIZARDS**

Aspidoscelis hyperythra beldingi—Belding's orange-throated whiptail

* signifies introduced (non-native) species

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