



January 27, 2015

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EMP GRANT NO. 5001324

CALAVERA PRESERVE PLANNING AREA ACCESS CONTROL AND HABITAT RESTORATION PROJECT

The City of Carlsbad fulfilled the provisions, and respectfully submits final Invoice No. 7, relative to EMP Grant No. 5001324 for the Calavera Preserve Planning Area Access Control and Habitat Restoration Project. Invoice No. 7 identifies costs associated with the tasks outlined in the EMP grant for the period of March 30, 2013 through December 31, 2014. The City of Carlsbad requests that the grant be closed and complete, and retention in amount of \$ 22,088.79 be submitted at this time. The summary report of tasks completed and site images are included.

The following is a brief discussion of each task relating to the EMP grant:

Task 1 – Install Fencing and Gates

In October 2011, the city issued a Notice to Proceed to Scott Fence Co. for the installation of fencing within the Lake Calavera and Carlsbad Highlands Preserves with the objective of closing unauthorized trails, installing signage directing users to the authorized trail system, and constructing of fencing for the protection of designated sensitive habitat areas. By the end of the first quarter of 2012, lodge pole fencing and interactive signage of the Access Control EMP grant had been completed.

Throughout the duration of the EMP grant, city staff with the support of the contractors and city volunteers have provided repairs to the fencing, which has unfortunately been subject to random vandalism. Additionally these parties have installed numerous new segments of lodge pole fencing within the Lake Calavera Preserve to close unauthorized trails and protect sensitive habitat areas.

Installation of gates has been removed from this project and the amount \$10,000 subtracted from the EMP grant total fund.

Task 2 – Habitat Restoration

The Restoration Project was implemented in accordance with the Diegan Coastal Sage Scrub Restoration Plan, TransNet EMP Grant Project: Calavera Preserve Planning Area (Restoration Plan), which was prepared by Technology Associates, Inc. (TAIC) (Aug. 24, 2009). Habitat West conducted the site preparation and seed imprinting, and provided maintenance during the 120-day plant establishment period. Habitat Restoration Sciences, Inc. (HRS) began conducting site maintenance at the conclusion of

the 120-day plant establishment period in July 2010, which was the start of the 3-year maintenance and monitoring period. Activities for this period included watering, weeding, trash collection and biological monitoring, among other tasks.

1. The results of the Year 1 Monitoring report indicated the vegetation growth rate of the imprinted native plant species at the 5-acre restoration site did not meet the success criteria identified in the EMP grant primarily due to the lack of nutrients in the native soil composition. Based on the recommendations of the Year 1 Monitoring Report, the city contracted with HRS to create approximately 3,500 basins around the new plants and apply amended top soil to promote plant growth. Even though this expenditure was not part of the initial EMP grant application, the remediation work was necessary to ensure meeting the identified success criteria at the end of the 5-year project cycle.
2. The results of the Year 2 and 3 Monitoring report indicated that the site continued to progress well and was in good condition overall. There continued to be improved native species diversity throughout most of the site due to remedial planting efforts that again took place in Dec. 2012 and April 2013. The third year performance criteria for container plant survival, native species richness (i.e., occurrence of native species) and weed presence were all met. Combined native cover, of both annual and perennial species, was still lower than the third year annual performance standards at 25.1%. Vegetation cover of perennial native species was also significantly below the third year goal of 60% cover, with 25.0% cover. However, cover from perennial native species was improving, increasing 20% from last year, and was expected to continue to improve in subsequent years of the maintenance and monitoring period, as establishing perennial native species continued to grow and contributed their seed to the restoration area. Perennial species cover had improved over the last year through supplemental planting and maintenance measures implemented by HRS, as well as through community involvement volunteer planting efforts coordinated by the city and HRS/Dudek.
3. A component of the city contract with the Center for Natural Land Management (CNLM) for preserve management services is to perform approximately 200 hours of patrolling services on a quarterly basis for the 600 acres of city managed preserves. A majority of the patrolling occurs within the Lake Calavera Preserve to ensure compliance with regulations such as trail enforcement, fences removal, and general public education of habitat preserves and its importance. Invoice No. 7 includes cost of the CNLM patrols and maintenance occurred at the Lake Calavera Preserve and entered \$81,867.33 within this reporting period as matching funds for Task 2.2.
4. In addition, in Year 4 and 5 the city continued to monitor the site to ensure the health of the plants, and improved vegetation coverage. The city and the preserve manager continued supplemental watering on a monthly basis to assure success of the new plantings performed during the volunteering events. Invoice No. 7 reflects watering total costs of \$12,373 within this reporting period, as matching funds for Task 2.2.

Task 3 – Public Outreach

The city continued with an active public outreach program highlighting the benefits of natural open spaces throughout the city. A component of our public outreach program is to provide booths and information

material at various city sponsored functions as well as at all volunteer events at Lake Calavera. The matching fund entry captures the time spent performing public outreach spent by city staff, Preserve Manager and Preserve Steward at these public functions.

The city conducted several volunteering events at Lake Calavera throughout the EMP grant duration, specifically to install additional post and rail fencing, perform erosion and drainage repairs and provide supplemental planting of native plant species. Invoice No.7 reflects 4 events conducted in the reporting period, held on April 27, 2013, September 28, 2013, June 7, 2014 and November 15, 2014. Through the volunteer efforts, approximately 285 native plants were planted within the 5-acre restoration site and 150 linear feet of post-and-rail fence was installed to close unauthorized trails. The value of the volunteer effort including plant materials is \$25,770.73, and is entered as matching funds for Task 3.

Task 4 – Project Administration

Invoice No. 7 allocated the administration costs for the time spent preparing and leading volunteering events, review of as needed access control within the preserve and site monitoring. Project Administration In-Kind services assumed 80 hours of staff time per year, with the rate of \$110/hr. The total value of the admin cost for the reporting period is \$8,800.

If you have any questions or need additional clarification, please feel free to contact me at (760) 434-2838.

Sincerely,

A handwritten signature in blue ink, appearing to read "Kasia", with a long horizontal stroke extending to the right.

Kasia Trojanowska

Park Planner

Attachments

- Picture documentation of the site development process since September 2009 until December 2014
- Task 2:
 - HRS Invoice Nos. 4320, 4392, 4440, 4511, and 4575 totaling \$11,147.54, applied to Year 3 In-Kind matching funds
 - Tabulation of supplemental plant watering costs for 5-acre restoration site (both contractor and city), applied to Year 4 & 5 Restoration Monitoring and Maintenance In-Kind Services matching funds - \$12,373
 - Tabulation of CNLM patrolling costs (education, enforcement, fence repair, trash pick-up) of Lake Calavera Preserve by CNLM Rangers, applied to Year 4 & 5 Restoration Monitoring and Maintenance In-Kind Services matching funds - \$81,867.33
- Task 3:
 - HRS invoices Nos. 4278 and 5707, applied to Public Outreach and Education In-Kind Services, matching funds - \$1,485.25
 - Volunteers Hours Reports – Estimated In-Kind Services value of volunteers hours

Feb. 27, 2010

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PICTURE DOCUMENTATION OF THE SITE FOR THE DURATION OF THE EMP GRANT NO. 5001324 FOR THE
CALAVERA PRESERVE PLANNING AREA ACCESS CONTROL AND HABITAT RESTORATION PROJECT



November 19, 2009



Before Restoration



February 2010



Imprinting of the Native Plants



February 2010



Supplemental potted 1 gallon plants to fill in bare areas

Feb. 27, 2010

Page 5

February 2010



Supplemental potted 1 gallon plants to fill in bare areas



May 2010



Meadows after Imprinting



April 2011



Container Stock Watering Saucers



April 2011

Preserve Signage/ Info Kiosk

Feb. 27, 2010

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December 2011



New Fence at South Boundary of Preserve



July 2012



Walk Through



July 2012



Interpretive Signage



January 2013



April 2013



April 2013



Supplemental Planting by Volunteers



Volunteer Trail repair and planting



Volunteer Trail Repair and Planting



Septemeber 2013



Interpretative Signage



Septemeber 2013



Volunteer Trail Repair and Litter Patrol



April 2014

Educational Hike



June 2014

National Trails Day – Erosion Repairs



November 2014

Volunteer Fence & Trail Repair, Native Planting



November 2014

Planting



December 2014