



April 23, 2019

Crystal Franco, P.E.
Los Angeles County Flood Control District
900 S. Fremont Avenue
Alhambra, CA 91803

Re: Devil's Gate Off-Site Turnkey Project As-Built Report [USACE Section 404 Permit: SPL-2014-00591, CDFW Lake or Streambed Alteration Agreement: 1600-2015-0263-R5].

Dear Crystal:

In compliance with the Habitat Mitigation and Monitoring Plan (HMMP) for the Devil's Gate Off-Site Mitigation Project (Mitigation Site), WRA, Inc. (WRA) respectfully submits this letter to serve as notification for the completion of the restoration activities on the Mitigation Site. Included in this letter is a summary of activities that were conducted during the implementation phase. As stated in the HMMP, the planned mitigation activities will include installing wildlife-friendly cattle exclusion fencing, removing and managing invasive plant species, planting mulefat and willow live stakes, and supplementing hydrology when necessary to sustain the new habitat area. Photographs of the site prior to and during the construction phase of implementation are also included in Appendix A.

Mitigation Acreage

The Mitigation Site is located within Area D of the 4,103-acre Petersen Ranch Mitigation Bank located near Leona Valley, Los Angeles County, California. The sag pond in its center is the critical feature of the Mitigation Site and will be the aquatic resource intended to support the implemented mitigation activities. Implementation of the HMMP was anticipated to result in 17.41 acres of Wetland Riparian Enhancement, 8.19 acres of Riparian Buffer Enhancement, 3.06 acres of Riparian Buffer Preservation, and 3.54 acres of upland buffer preservation. During implementation of the HMMP, an additional 2.06 acres of riparian habitat was planted resulting in a total of 17.41 acres of Wetland Riparian Enhancement, 10.26 acres of Riparian Buffer Enhancement, 3.06 acres of Riparian Buffer Preservation, and 3.54 acres of upland buffer preservation. This results in an overall excess of acreage as depicted in Table 1. The boundaries associated with the 404 mitigation acreage is shown in Appendix B.

Table 1: Proposed and As-built 404 Mitigation Acreage for the Devil's Gate Off-site HMMP

404 Mitigation Types	Proposed Acreage	As-built Acreage	Difference
Wetland Riparian Enhancement	17.41	17.41	0.0
Riparian Buffer Enhancement	8.19	10.26	2.07
Riparian Buffer Preservation	3.06	3.06	0.0
Upland Buffer Preservation	3.54	3.54	0.0
Total	32.20*	34.27	2.07*

*The 0.01-acre discrepancy in Total Proposed Acreage shown in Tables 1 and 2 is due to rounding and was reported in the HMMP as such.

Proposed mitigation actions were anticipated to create 6.36 acres of new riparian habitat consisting of a matrix of mulefat and willow dominated communities. Implementation of the HMMP also anticipated restoring an additional 19.25 acres of existing riparian habitat. These restored habitats were expected to be converted into dense intact stands of riparian scrub. The HMMP proposed these activities combined would result in 25.60 acres of new willow and mulefat dominated riparian habitats within the Mitigation Site. In addition, 6.60 acres of alluvial scrub habitat will be preserved on the alluvial fan that feeds into Pond D, and in the ephemeral drainage on the southwest side of the Mitigation Site. During implementation of the HMMP an additional 2.06 acres of mulefat/willow scrub was planted resulting in a total of 8.39 acres of Mulefat/Willow Scrub Creation, 19.28 acres Mulefat/Willow Scrub Restoration, and 6.60 acres Alluvial Scrub Preservation. This results in an overall difference in acreage as depicted in Table 2. The boundaries associated with the 1600 mitigation acreage is shown in Appendix C

Table 2: Proposed and As-built 1600 Mitigation Acreage for the Devil's Gate Off-site

1600 Mitigation Types	Proposed Acreage	As-built Acreage	Difference
Mulefat/Willow Scrub Creation	6.36	8.39	2.03
Mulefat/Willow Scrub Restoration	19.25	19.28	0.03
Sub-Total Mulefat/Willow	25.61	27.67	2.06
Alluvial Scrub Preservation	6.60	6.60	0.0
Total Mitigation Acreage	32.21*	34.27	2.06*

*The 0.01-acre discrepancy in Total Proposed Acreage shown in Tables 1 and 2 is due to rounding and was reported in the HMMP as such.

A Conservation Easement will be recorded over the 32.21 acres needed to meet the Devil's Gate Permit requirements. The remaining 2.06 acres of excess mulefat/willow habitat will be folded into the Area D portion of the Petersen Ranch Mitigation Bank.

Habitat Restoration Activities

Planting Areas

As outlined in the HMMP's Planting and Fencing Plan, the proposed planting included 6,170 mulefat (*Baccharis salicifolia*) live stakes and a mix of red willow (*Salix laevigata*) and arroyo willow (*S. lasiolepis*) totaling 1,256 live stakes. Planting activities began November 27, 2018 and were completed March 15, 2019 resulting in the installation of 9,338 mulefat live stakes and 1,1106 mixed red and arroyo willow live stake plantings. Planting used a clustered approach in order to create large patches of dense cover relatively quickly with open spaces between clusters anticipated to fill in over time, as outlined in the HMMP. Planting areas are depicted in the As-

Built drawing shown in Appendix D and include those portions of the decommissioned road that overlap with the prescribed planting areas.

As proposed in the HMMP all plantings were live pole cuttings harvested from plants within the Bank Property to preserve local genetics. Willow plantings were focused in the wettest portion of the Mitigation Site, primarily around the sag pond, as well as a few other locations where groundwater seeps are sufficient to support the species. Mulefat plantings are more widespread throughout the Mitigation Site. The Mitigation Site is anticipated to be supported by the natural hydrology of the pond and shallow subsurface groundwater. Supplemental irrigation may be provided on an as-needed basis. Invasive species were treated within the area prior to planting, and will continue to be treated on an ongoing basis.

Cattle Exclusion Fencing

As proposed in the HMMP, a wildlife-friendly cattle exclusion fence is being installed around the planting areas to prevent livestock from grazing on riparian plants. Alignment of the cattle exclusion fencing will differ slightly to what is outlined in the HMMP to avoid sensitive habitat while providing full constructability. The updated fence alignment is shown in Appendix B.

Summary

We have reached completion of the restoration activities at the Devil's Gate Turnkey Mitigation site and have demonstrated that the constructed habitats are substantially consistent with the HMMP. A Conservation Easement will be recorded over the 32.21 acres of willow/mulefat habitat required to meet the Devil's Gate off-site compensatory mitigation requirements. The excess 2.06 acres that have been planted, will be excluded from the Devil's Gate off-site Mitigation Area Conservation Easement and will be incorporated into Area D of the Petersen Ranch Mitigation Bank.

If you have any questions regarding this submittal, please do not hesitate to contact me at 415-524-7238 or by email at bello@wra-ca.com

Sincerely,

Nate Bello, WRA

Copy to:

Veronica Mardis, P.E.
Los Angeles County Flood Control District
900 S. Fremont Avenue
Alhambra, CA 91803

Bonnie Rogers
U.S. Army Corps of Engineers
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California Department of Fish and Wildlife
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Los Alamitos, CA 90720

Valerie Carrillo Zara
California Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Enclosures:

Appendix A Photo documentation of Pre- and Post-Planting

Appendix B 404 Mitigation Acreage

Appendix C 1600 Mitigation Acreage

Appendix D As-Built Figure

Appendix A



Mulefat and willow planting area pre-restoration.



Mulefat and willow planting area pre-restoration.



Mulefat and willow planting area pre-restoration.



Live stake



Mulefat and willow planting areas post-restoration (northwest)



Mulefat and willow planting areas post-restoration (north)



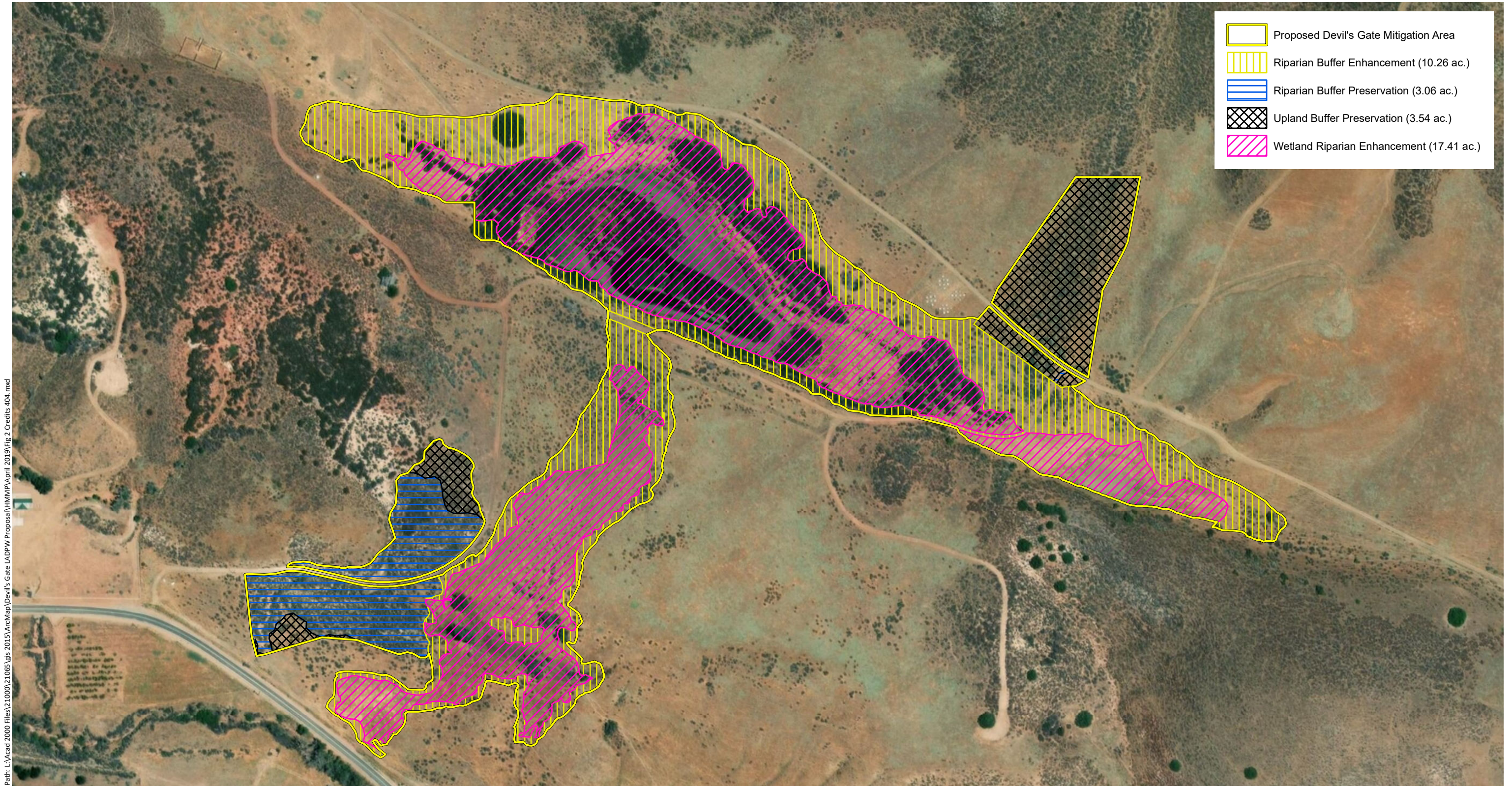
Mulefat and willow planting areas post-restoration (northeast corner)



Mulefat and willow planting areas post-restoration (south side)

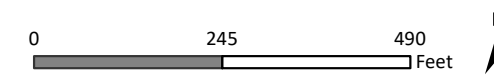


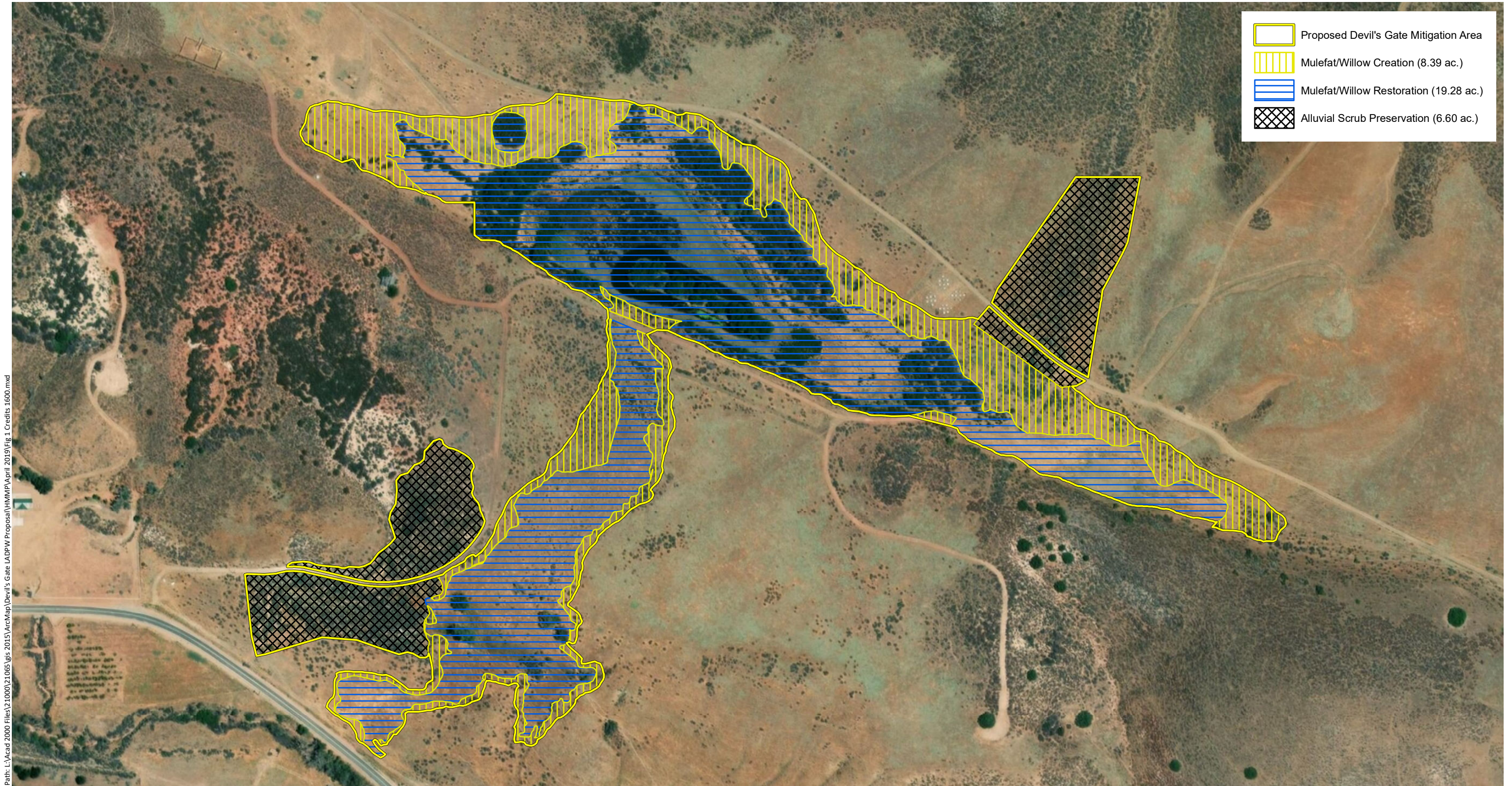
Mulefat and willow planting areas post-restoration (south side)



Appendix B. 404 Mitigation Types

Petersen Ranch Mitigation Bank
Los Angeles County, California





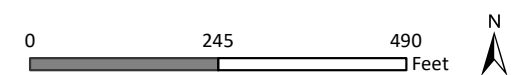
- Proposed Devil's Gate Mitigation Area
- Mulefat/Willow Creation (8.39 ac.)
- Mulefat/Willow Restoration (19.28 ac.)
- Alluvial Scrub Preservation (6.60 ac.)

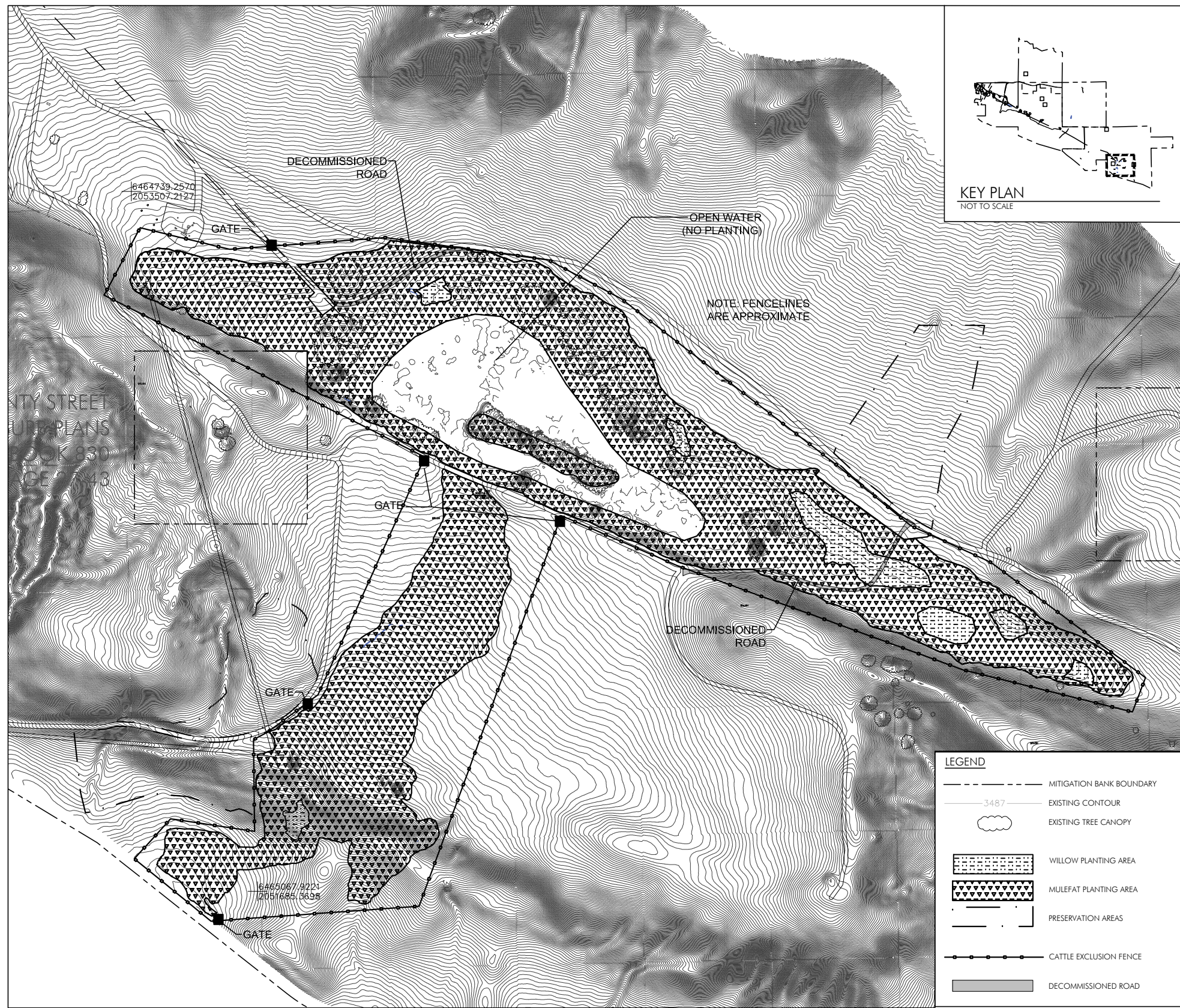
Path: L:\Acad 2000 Files\21000\21065\gis\2015\ArcMap\Devil's Gate LADPW Proposal\HMMP\April 2019\Fig 1 Credits 1600.mxd

Sources: 2016 DigitalGlobe Aerial, WRA | Prepared By: czumwalt, 4/22/2019

Appendix C. 1600 Mitigation Types As-built

Petersen Ranch Mitigation Bank
Los Angeles County, California



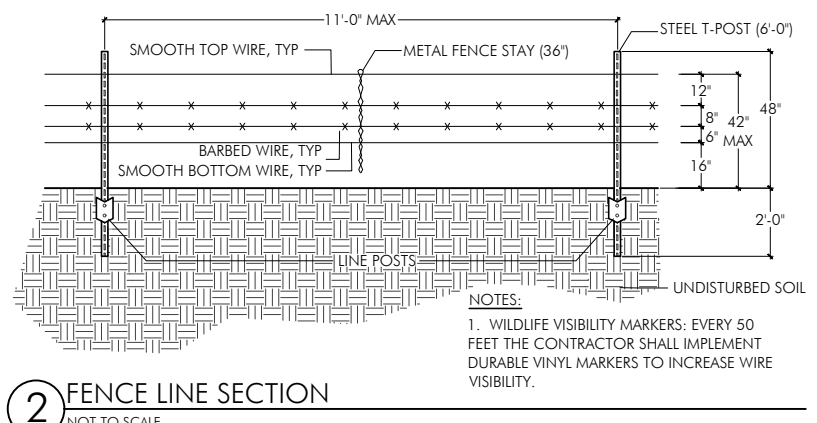
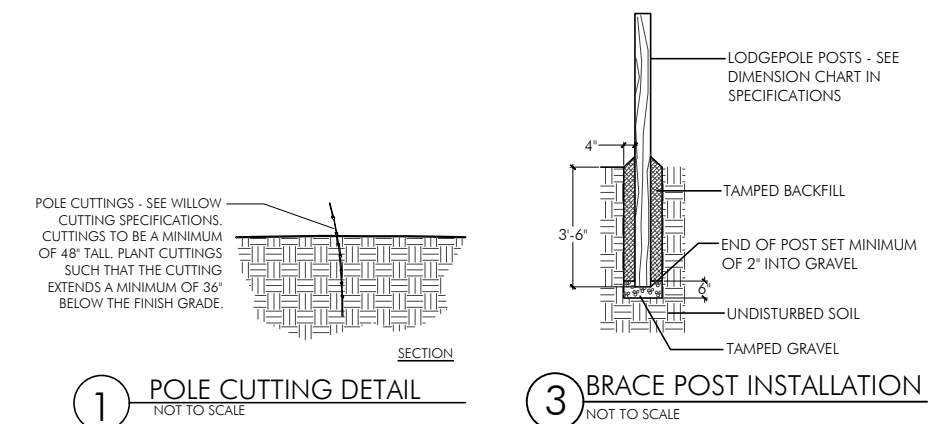


MULEFAT AREA PLANT SCHEDULE

BOTANICAL NAME	COMMON NAME	CONTAINER SIZE	QUANTITY
BACCHARIS SALICIFOLIA	MULEFAT	4' LIVE STAKE	9,338

WILLOW AREA PLANT SCHEDULE

BOTANICAL NAME	COMMON NAME	CONTAINER SIZE	QUANTITY
SALIX LAEVIGATA	RED WILLOW	4' LIVE STAKE	885
SALIX LASIOLEPIS	ARROYO WILLOW	4' LIVE STAKE	221



NOTES:
 1. WILDLIFE VISIBILITY MARKERS: EVERY 50 FEET THE CONTRACTOR SHALL IMPLEMENT DURABLE VINYL MARKERS TO INCREASE WIRE VISIBILITY.

PLANTING AND FENCING PLAN



WRA JOB #21065				
DATE: 04/20/2019				
DESIGNED BY: RBB/RFP				
DRAWN BY: RFP				
CHECKED BY: RBB	NO.	DATE	BY	REVISIONS

**PETERSEN RANCH
 MITIGATION BANK**
 LEONA VALLEY, LOS ANGELES COUNTY CA

**FIGURE 4: DEVIL'S GATE
 OFFSITE MITIGATION
 AS-BUILT PLAN**