



# SCVWD UPPER PENITENCIA CREEK (KAMMERER) PROPERTY 2017 ANNUAL REPORT

## YEAR 3

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## Executive Summary

The Santa Clara Valley Water District (SCVWD) acquired the 222-acre Upper Penitencia Creek (Kammerer) Property (Property) in part for the purpose of providing mitigation in perpetuity for impacts associated with the SCVWD's 2002 Multi-Year Stream Maintenance Program (SMP) under the Stream and Watershed Protection Program (S&WPP). The SCVWD developed a Long-Term Management Plan (LTMP) to ensure the Property is monitored, maintained, and managed in a manner that preserves its conservation values in perpetuity. The LTMP is consistent with the conservation easement, the SCVWD's mitigation goals and the mission of the Santa Clara Valley Open Space Authority (OSA). The OSA initiated land management services in January 2015.

The Property's conservation values, natural resources, and infrastructure are being preserved. Numerous wildlife sightings have been noted by OSA staff while monitoring the Property including deer, skunk, and many species of birds, indicating that the vegetation and habitat types are providing high quality habitat for a variety of wildlife.

Conservation grazing continues to be a management tool to maintain the Property's ecological condition. The RDM monitoring results for 2017 indicate that RDM levels were generally high, indicating that the Property is not being over-grazed. OSA will discuss bringing additional cattle onto the Property with the grazer to bring RDM levels down in 2017. The Property's four miles of streams, four ponds, and spring are being protected. Of the thirteen established aquatic habitat monitoring sites, six showed improvement since 2014 and seven showed that habitat is being maintained. Two of the sites in 2017 showed minor degradation compared to 2016, but those sites have improved since 2014.

Invasive plants populations are relatively contained on the Property. Most of the invasive plant populations were small with a few larger populations found near the roads. Staff resources in 2015 were devoted to mapping invasive plants on the Property. Weed control efforts were prioritized and treatment began in 2016 and will continue in 2018. In 2017 staff resources were devoted to road maintenance due to the heavy storms.

The Property's infrastructure is generally in good condition. OSA staff improved the accessibility of the roads by brushing, removing encroaching limbs and repairing erosional damage. OSA staff also removed downed trees from the road that had fallen and blocked road access.

OSA staff monitored the Conservation Easement on the Property and found no violations. No major problems came up throughout the year which require adaptive management. The results from the third year of monitoring and management indicate that the LTMP is working and the Property's conservation values are being maintained, consistent with the SCVWD's mitigation goals, the conservation easement, and the mission of the OSA.

## 1.0 Background Information

### 1.1 Project Information

Project Name: **Upper Penitencia Creek Property Long-Term Management Plan**

Applicant Information: **Santa Clara Valley Water District**

Conservation Easement Initiated: **January 2015**

Long-Term Management Plan Initiated: **January 2015**

Mitigation Monitoring Year: **2017**

Stream and Watershed Protection Program Permitting Agencies:

- **U.S. Army Corps of Engineers**
- **California Department of Fish and Wildlife**
- **San Francisco Bay Regional Water Quality Control Board**

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### 1.2 Mitigation Site Information

The Santa Clara Valley Water District (SCVWD) purchased the 222-acre Upper Penitencia Creek (Kammerer) Property (Property) from the Santa Clara Valley Open Space Authority (OSA) in 2014 (Figure 1). The Property was acquired in part for the purpose of providing mitigation in perpetuity for impacts associated with the SCVWD’s 2002 Multi-Year Stream Maintenance Program (SMP) under the Stream and Watershed Protection Program (S&WPP). In addition, the Property may also provide mitigation for other SCVWD projects, either currently identified or to be identified in the future. The Property includes 188.3 acres of S&WPP-designated streams (waters of the U.S./State and California Fish and Game Code 1600 jurisdiction) and their associated buffers.

## BACKGROUND INFORMATION

The OSA initiated land management services in January 2015 and holds a perpetual conservation easement (CE) on an approximately 201-acre portion of the Property. For practicality of legal survey and description, the CE includes more acreage than the allocated mitigation areas it encompasses. The CE describes a commitment to preserve and protect the CE area's conservation values for the purpose of providing mitigation credit for the S&WPP. The CE will also allow opportunities for ecologically sensitive public enjoyment of the Property. In the future, additional CE(s) are expected to be placed on the Property for the purpose of providing additional mitigation credit for future SCVWD projects. The approach to be used will be determined at that future time and with the agreement of the permitting agencies.

### 1.3 Property Location

The 222-acre Property is located eight miles northeast of downtown San Jose in unincorporated Santa Clara County (Figure 1) on portions of APN 627-22-013, 627-22-012, and 627-22-010. The Property lies on a west-facing slope of the Diablo Range, approximately 6.5 miles northwest of Mt. Hamilton. The Diablo Range is largely undeveloped and supports a diverse mix of grassland, scrubland and woodland communities. Cattle ranching and passive recreation are the predominant human uses throughout most of the Diablo Range. Permanent protection of the Property will add to a growing and increasingly contiguous swath of open space and conservation lands in the Mt. Hamilton region that currently include San Francisco Public Utilities Commission lands to the north, OSA lands and the City of San Jose's Cherry Flat Reservoir to the west, the Blue Oak Ranch Reserve to the southeast, a preserve of The Nature Conservancy to the east, and Joseph D. Grant County Park to the south (Figure 1).

### 1.4 Property Conservation Values

Consistent with the mitigation goals and property characteristics, the conservation values are:

- Over four miles of seasonal streams, as well as a spring and four ponds (three seasonal and one perennial).
- A mosaic of open rangeland and numerous and varied vegetation and habitat types including oak savannas, woodlands and forests, non-native annual grasslands and sagebrush scrub providing habitat for a wide variety of birds, mammals, reptiles, amphibians, and invertebrates.
- Potential breeding and upland dispersal habitat for sensitive amphibians: the federally threatened California red-legged frog (CRLF; *Rana draytonii*) and state Species of Special Concern, and the state and federally threatened California tiger salamander (CTS; *Ambystoma californiense*).

## BACKGROUND INFORMATION

- Ecological connectivity to the adjacent and surrounding open space and watershed land network.

### 1.5 Long-Term Management Plan Purpose and Relation to Conservation Easement

The LTMP establishes objectives, priorities and tasks to monitor, manage, maintain and report on the waters of the U.S./State and 1600 jurisdiction and overall conservation values on the entire Property, which will be managed according to the LTMP. In addition, the LTMP is a binding and enforceable instrument, implemented by the CE covering a portion of the Property. The areas that will be covered by the approximately 201-acre 2014 CE are defined in the easement, and consist of the 188.3 acres of Stream and Watershed Protection Buffers for 15.4 freshwater wetland mitigation credits. The CE establishes the prohibited activities within these applicable areas. The CE and LTMP together will provide for the long-term protection, maintenance and management of the CE area and its conservation values.

The Goals of the LTMP are to:

- Meet the compensatory mitigation requirements of SCVWD's 2002 SMP.
- Preserve and allow for the improvement of the conservation values of the Property.
- Provide coordinated, unified management for the entire Property.
- Provide feasible and effective conservation guidelines, standards and priorities for resource management, monitoring and adaptive management.
- Be compatible with and promote cooperation among the various land owners/managers within the upper end of the Upper Penitencia Watershed (e.g., with respect to grazing regimes and invasive species control) to help ensure the survival of viable populations of sensitive species and healthy biotic communities in the area as a whole.
- Provide flexibility as needed to adapt management practices in response to monitoring and field observations, to adapt best management practices and to meet revised or newly established mitigation goals for the Property over time.
- Incorporate public access opportunities consistent with natural resource management goals.

### 1.6 Management Plan Elements, Objectives, and Tasks

## BACKGROUND INFORMATION

The overall goal of long-term management is to foster the long-term viability of the Property's waters of the U.S/State and 1600 jurisdiction and overall conservation values. This goal will be met through routine monitoring and management of the conditions that support the Property's biological resources, by maintaining existing infrastructure and by providing for security and public safety as detailed below. The SCVWD will obtain all necessary permits and approvals prior to initiation of management and maintenance actions requiring such permits and approvals; the OSA will obtain all necessary permits and approvals prior to initiation of public access-related actions that require such permits and approvals.

The major management practice for the Property is the management of sensitive habitats, including streams and riparian corridors, and ponds. In addition, managed cattle grazing (refined from past practices), road maintenance, invasive weed control, and monitoring and adaptive management will occur (Table 1). These areas of focus are expected to support all conservation values of the Property.

*Table 1. Long-Term Management Tasks and Timing*

Task No.	Task	Frequency	Timing
<b>A. Streams and Ponds</b>			
<b>A1</b>	Stream and pond condition monitoring	Annually	May/June
<b>A2</b>	Stream and pond adaptive management actions	As needed	Dry season
<b>B. Livestock Grazing Management</b>			
<b>B1</b>	Livestock grazing implementation monitoring	Monthly	Monthly
<b>B2</b>	RDM reference plot monitoring	Annually	Mid-Sept. - early Oct., before rains start
<b>B3</b>	Subunit RDM status monitoring protocol	Annually	Mid- Sept. - early Oct., before rains start
<b>C. Invasive Plant Species Management</b>			
<b>C1.1.1.</b>	Invasive plant monitoring	Comprehensive - every 5 year. Incidental - annually.	March, June/July
<b>C1.1.2.</b>	Incidental invasive plant monitoring	Ongoing	Conducted with other annual monitoring and monthly patrols



## BACKGROUND INFORMATION

Task No.	Task	Frequency	Timing
C2	Conduct annual invasive weed control activities	Annually	Dry season. Variable timing dependent on species and techniques
<b>D. CTS</b>			
D1	Incidental CTS observations	Ongoing	Conducted with other annual monitoring and monthly patrols
<b>E. CRLF</b>			
E1	Incidental CRLF observations	Ongoing	Conducted with other annual monitoring and monthly patrols
<b>F. Other Sensitive Species</b>			
F1	Document observations of other sensitive wildlife and plant species on the Property	Ongoing	Conducted with all other annual monitoring and monthly patrols
<b>G. Fences, Gates, and Troughs</b>			
G1	Annual monitoring	Annually	Dry season
G2	New infrastructure -adaptive management	As needed	As needed
<b>H. Roads</b>			
H1	Road monitoring	Once annually (general); after large storms (stream crossings)	General - May; Stream Crossings - after large storms
H2	Routine road maintenance	Approx 1x/5 years	Dry season
H3	Minor woody vegetation removal	As needed	Variable
<b>I. Pipelines and Spring Boxes</b>			
I.1	Annual Monitoring and Compliance	Annually	Dry season
<b>J. Public Access</b>			
	Optional		
<b>K. Trash and Trespass</b>			

## BACKGROUND INFORMATION

Task No.	Task	Frequency	Timing
K1	Monthly patrol monitoring	Ongoing	Conducted with all other annual monitoring and monthly patrols
K2	Annually remove or rectify problems	Annually	June
<b>L. Reporting</b>			
L1	Prepare annual report	Annually for first 5 years; then potentially change to 1x/5 years	Due Jan. 31
L2	Permitting agency check-in	As needed	As needed

## 2.0 Summary of Data Collected, Results and Management Actions

### 2.1 Element A – Streams, Springs, and Ponds

#### 2.1.1 Task A1 – Stream and Pond Condition Monitoring

The SCVWD identified 15 representative aquatic habitat areas for monitoring (Figure 2) in spring, 2014. Particular attention was paid to areas with streams and ponds most susceptible to degradation over the long term. Aquatic monitoring stations were stratified according to location on the Property, habitat type, stream order, and current conditions, to ensure that they are representative of various conditions across the Property. H.T. Harvey and Associates conducted baseline monitoring in 2014 to describe baseline conditions and set a general long-term goal for management of aquatic resources at each station.

OSA staff conducted post-grazing season qualitative monitoring to assess the condition of springs, streams, and associated wetlands. Monitoring was conducted in 2015 and 2016 and the results were included in their respective annual reports. In June 2017 monitoring was conducted at 13 locations (two locations were discontinued per the recommendation in the 2015 and 2016 Annual Reports) and habitat was compared to 2016 conditions, baseline conditions (2014), and the monitoring goal for each station. A description of the 2017 conditions are described in Appendix B for each of the 13 aquatic habitat monitoring stations, and then summarized in Table 2. Photographs and the Aquatic Habitat Monitoring Checklist for each station are also provided in Appendix B.

Table 2. Aquatic Habitat Monitoring Results

Monitoring Station	Habitat Condition Compared to Baseline Conditions in 2014 (maintained, improving, or degrading)	Habitat Conditions Compared to 2016 Conditions (maintained, improving, or degrading)	Management Actions Taken	Recommended Management Actions
1	Maintained. Banks are unstable and erosion continues, but gullies and head cut have not grown substantially.	Maintained	None	Continue to monitor to make sure head cut and gully do not grow substantially. Consider redirecting water runoff from road and cleaning out culvert further

## MONITORING RESULTS

Monitoring Station	Habitat Condition Compared to Baseline Conditions in 2014 (maintained, improving, or degrading)	Habitat Conditions Compared to 2016 Conditions (maintained, improving, or degrading)	Management Actions Taken	Recommended Management Actions
				downstream if needed.
2	Improving. Less evidence of cow disturbance, less bare soils along the bank, and increase of wetland vegetation.	Degrading. More evidence of cow disturbance and vegetation trampling around the pond, decrease of wetland vegetation.	None	Continue to monitor.
3	Improving.	Maintained. More vegetation along banks.	None	Continue to monitor. Check after large storm event and consider clearing vegetation from stream bed (not banks) if flow is impeded.
4	Improving. More vegetation along banks.	Improving. More vegetation along banks.	None	Continue to monitor. Consider future modifications to pond so it holds water longer.
5	Maintained. Bare banks are similar to 2014 and no cow punch was observed in the stream this year.	Maintained.	None	Continue to monitor.
6	Maintained. Conditions are similar to 2014.	Maintained. Similar vegetation on banks and wetland vegetation in pond.	None	Continue to monitor. Consider future modifications to pond so it holds water longer.

## MONITORING RESULTS

Monitoring Station	Habitat Condition Compared to Baseline Conditions in 2014 (maintained, improving, or degrading)	Habitat Conditions Compared to 2016 Conditions (maintained, improving, or degrading)	Management Actions Taken	Recommended Management Actions
7	Maintained	Maintained	None	Continue to monitor headcut and erosion to ensure they do not increase. Remove fallen tree from stream channel if it impedes flow.
8	Improving. Conditions at the site have slightly improved at the station, but there is still erosion present on the hillsides leading to the station.	Maintained	None	Continue to monitor.
9	Maintained. Conditions. Overall this is good quality habitat.	Degrading slightly.	None	Continue to monitor.
10	Monitoring station was discontinued due to redundancy with stations 9 and 11.			
11	Improving	Maintained	None	Continue to monitor.
12	Monitoring station was discontinued due to steepness and lack of access.			
13	Maintained	Maintained	None	Continue to monitor and remove woody debris if flows are impeded.
14	Improving	Improving. Banks and inlet have more vegetation.	None	Continue to monitor. Consider future modifications to pond so it holds water longer.

## MONITORING RESULTS

Monitoring Station	Habitat Condition Compared to Baseline Conditions in 2014 (maintained, improving, or degrading)	Habitat Conditions Compared to 2016 Conditions (maintained, improving, or degrading)	Management Actions Taken	Recommended Management Actions
15	Maintained	Improving. More vegetation on banks and hillsides.	None	Continue to monitor

### 2.1.2 Task A2 – Stream and Pond Adaptive Management Actions

All of the monitoring stations indicate that since baseline conditions in 2014, stream and pond habitat is either being maintained or improving. Of the 13 monitoring stations, none showed signs of degradation, seven showed habitat was being maintained, and six showed habitat improving. In comparison to conditions in 2016, eight sites were maintained, two showed minor degradation, and three had improved. It is recommended to keep monitoring 13 stations in 2018 which provide good representation of the Property and then re-evaluate the monitoring frequency for 2019.

## 2.2 Element B - Livestock Grazing Monitoring

### 2.2.1 Task B1 – Livestock Grazing Implementation Monitoring

OSA staff visually inspected the Property monthly to confirm the presence, distribution, and abundance of cattle during routine monthly patrols. A grazing log was maintained to track cattle use on the Property. The grazer had eight cattle since November 2016 cattle and kept them on year-round (as opposed to 20 cattle November 2015 to June 2016).

### 2.2.2 Task B2 – RDM Reference Plot Monitoring

Six Residual Dry Matter (RDM) Reference Plots were identified in the LTMP that are distributed across the Property and representative of the general grazing within each subunit area and vegetation type. Keith Guenther, Certified Rangeland Manager, collected RDM samples and prepared the 2017 Annual Report which can be found in Appendix C.

In general, RDM standards were high in the grazed areas (Table 3). One location met RDM goals, and the other five locations were high. Stocking rates were lower in 2017 than 2016 (20 cattle in 2016 versus eight cattle in 2017), although cattle were kept on the property as

## MONITORING RESULTS

opposed to being removed in the summer of 2016. RDM rates have been high for a few years, despite weather fluctuations which indicate that the Property may be able to accommodate additional grazing (either by changing the timing or the stocking rates). OSA staff, in consultation with the grazer, will discuss increasing the cattle stocking rates in 2017, and will visually assess RDM levels in the spring to determine if any recommended adjustments are warranted.

*Table 3. RDM Monitoring Results*

Grazing Subunit	Site ID	RDM Goal	RDM Class 2015	RDM Class 2016	RDM Class 2017
Northwest	NW1	1000-1500	High	High	High
Northwest	NW2	1000-1500	Meets	Meets	High
Northwest	NW3	1000-1500	High	Exceeds	High
Northeast	NE1	1000-1500	High	High	High
Southeast	SE1	1000-1500	Exceeds	Exceeds	High
Southwest	SW1	1000-1500	High	High	Meets

### 2.2.3 Task B3 – RDM Subunit Status Monitoring

Keith Guenther, Certified Rangeland Manager, created a RDM zone map (Appendix C). Most of the RDM levels were high, with small section in the northwest pasture exceeding RDM levels. OSA staff will visually assess RDM levels in the spring, and discuss any recommendations to change the grazing regime (such as rotating cows into different pastures) with the grazer, a certified rangeland specialist, and the SCVWD. Overall, the RDM results show that the Property is not being overgrazed and that current grazing regime is meeting the LTMP goals and objectives, and therefore protecting the Property’s conservation values described in the CE.

### 2.2.4 Task B4 – Grazing Adaptive Management Actions

## 2.3 Element C – Non-Native Invasive Plant Management

### 2.3.1 Task C1 – Invasive Plant Monitoring

In 2015 OSA staff focused invasive plant efforts on determining the extent and location of invasive species in order to develop treatment plans and goals for subsequent years. In 2016 OSA staff conducted surveys during routine patrols to identify new invasive plant infestations. Surveys focused on areas where infestations are known to occur such as along roads, trails, and other impact areas. If new incidental occurrences were found, staff mapped the location, took

## MONITORING RESULTS

photos (embedded with the GPS'd data points in the Calflora database), and assessed the number of plants, percent cover, and distribution of plants using tablets and the Calflora Observer Pro application. Results were downloaded as ArcGIS shapefiles and a map was produced with the locations of invasive plants (Figure 3).

### 2.3.2 Task C2 – Annual Invasive Weed Control Activities

Overall the invasive plant populations on the Property continue to be low. The majority of the species detected were Italian thistle (*Carduus pycnocephalus*), tocalote (*Centaurea melitensis*), milk thistle (*Silybum marianum*) and summer mustard (*Herschfeldia incana*). In 2017 OSA staff did not do invasive weed control due to the heavy rains encountered over the winter which required a lot of staff time spent on road maintenance. In 2018 OSA staff will focus on high priority invasive species and locations, including those treated in 2016.

## 2.4 Element D – California Tiger Salamander (CTS)

### 2.4.1 Task D1 – Incidental CTS Observations

OSA staff did not see any occurrences of CTS during the course of monitoring. Pond K1 was the only pond that held water year-round and bullfrogs were observed at this pond. The other ponds on the Property were shallow or dry.

## 2.5 Element E – California Red-legged Frog (CRLF)

### 2.5.1 Task E1 – Incidental CRLF Observations

OSA staff did not see any occurrences of CRLF during the course of monitoring. Pond K1 was the only pond that held water and bullfrogs were observed at this pond. The other ponds on the Property were shallow or dry.

## 2.6 Element F – Other Sensitive Species

### 2.6.1 Task F1 – Sensitive Wildlife and Plant Observations

OSA staff did not see other sensitive wildlife or plants during the course of monitoring.

## 2.7 Element G – Fences, Gates, and Troughs

### 2.7.1 Task G1 – Annual Monitoring



## MONITORING RESULTS

OSA staff, in conjunction with the grazing tenant, assessed the condition of fences, gates and troughs to confirm infrastructure is being properly maintained (Table 4). The grazing tenant made some improvements this year to grazing infrastructure. OSA staff fixed the wildlife escape ramp on the trough that had broken. All infrastructure is being properly maintained.

### 2.7.2 Task G2 – Adaptive Management Actions

## 2.8 Element H – Roads

### 2.8.1 Task H1 – Annual Monitoring

Road conditions were inspected during routine patrols and checked after storms. In 2015 OSA staff documented baseline conditions for all road crossings and in 2017 staff checked these locations.

### 2.8.2 Task H2 – Routine Road Maintenance

Due to the heavy rains during 2017, the roads required repairs and additional maintenance.

### 2.8.3 Task H3 – Minor Woody Vegetation Removal

Vegetation was encroaching onto the road and limiting access for vehicles. OSA brushed the roads throughout the Property to improve vehicle access and removed low limbs from trees to improve access, fire safety, and reduce vehicle damage. OSA staff removed two downed oaks that were blocking road access.

*Table 4. Maintenance and Monitoring Tasks*

Month	Tasks
December	<ul style="list-style-type: none"><li>• Routine monitoring and patrol</li></ul>
January	<ul style="list-style-type: none"><li>• Routine monitoring and patrol</li></ul>
February	<ul style="list-style-type: none"><li>• Routine monitoring and patrol</li></ul>
March	<ul style="list-style-type: none"><li>• Routine monitoring and patrol</li><li>• Trash removal</li></ul>
April	<ul style="list-style-type: none"><li>• Routine monitoring and patrol</li><li>• Road maintenance</li></ul>

## MONITORING RESULTS

Month	Tasks
	<ul style="list-style-type: none"> <li>Remove downed trees from road</li> </ul>
<b>May</b>	<ul style="list-style-type: none"> <li>Routine monitoring and patrol</li> <li>Road maintenance</li> </ul>
<b>June</b>	<ul style="list-style-type: none"> <li>Routine monitoring and patrol</li> <li>Aquatic habitat monitoring</li> </ul>
<b>July</b>	<ul style="list-style-type: none"> <li>Routine monitoring and patrol</li> </ul>
<b>August</b>	<ul style="list-style-type: none"> <li>Routine monitoring and patrol</li> <li>Road maintenance</li> </ul>
<b>September</b>	<ul style="list-style-type: none"> <li>Routine monitoring and patrol</li> <li>Downed tree removal</li> </ul>
<b>October</b>	<ul style="list-style-type: none"> <li>Routine monitoring and patrol</li> <li>Road maintenance</li> </ul>
<b>November</b>	<ul style="list-style-type: none"> <li>Routine monitoring and patrol</li> <li>Road maintenance</li> </ul>

### 2.9 Element I – Pipelines and Springboxes

#### 2.9.1 Task I1 – Annual monitoring

OSA staff inspected spring boxes and pipelines during routine monthly patrols and found everything functioning and no repairs were needed.

### 2.10 Element J – Public Access

OSA staff did not lead any docent hikes onto the Property in 2017.

### 2.11 Element K – Trash and Trespass

## MONITORING RESULTS

### 2.11.1 Task K1 – Monthly Patrol Monitoring

OSA staff recorded the occurrences of trash found during the monthly patrols. The only trash found on the Property were Mylar balloons that were likely carried onto the Property by wind. All trash found was promptly removed.

### 2.11.2 Task K2 – Annually Remove or Rectify Problems

The trash found on the Property was minimal and was removed at the time it was found. No vandalism or trash impacts were found.

### 3.0 Discussion

Implementation of the LTMP began in January, 2015 by the OSA. The OSA previously owned the Property from 2012 to 2014 which gave OSA staff familiarity with the conditions of the Property's infrastructure and natural resources. The information gained from monitoring and management of the Property from 2012-2016 was used by OSA staff to assess any change in conditions in 2017.

The Property's conservation values, natural resources, and infrastructure are being preserved. Numerous wildlife sightings have been noted by OSA staff while monitoring the Property including deer, skunk, and many species of birds, indicating that the vegetation and habitat types are providing high quality habitat for a variety of wildlife.

Conservation grazing continues to be a management tool to maintain the Property's ecological condition. The RDM monitoring results for 2017 indicate that RDM levels were generally high, which demonstrates that the Property is not being over-grazed. Future RDM monitoring in the spring and fall will help determine if any changes to the grazing regime should be made. Any grazing recommendations will be made in consultation with a certified rangeland specialist.

All of the monitoring stations indicate that since baseline conditions in 2014, stream and pond habitat is either being maintained or improving. Of the 13 monitoring stations, none showed signs of degradation, seven showed habitat was being maintained, and six showed habitat improving. In comparison to conditions in 2016, eight sites were maintained, two showed minor degradation, and three had improved. It is recommended to keep monitoring 13 stations in 2018 which provide good representation of the Property and then re-evaluate the monitoring frequency for 2019.

Invasive plants populations are relatively contained on the Property. There were a few larger infestations of Italian thistle and tocalote along the roads, but invasive plants populations were mainly small or absent throughout most of the Property. Staff resources in 2015 were devoted to mapping invasive plants on the Property. Weed control was implemented in the spring/summer of 2016 and focused on isolated patches of Italian thistle and milk thistle. Invasive plant control efforts will continue in the spring/summer of 2018.

The Property's infrastructure, which includes roads, fences, troughs, pipelines and spring boxes, are generally in good condition. OSA staff improved the accessibility of the roads by brushing the roads, removing encroaching limbs, repairing erosion after storms, and removing downed trees blocking the road. They also repaired the wildlife escape ramp on the trough.

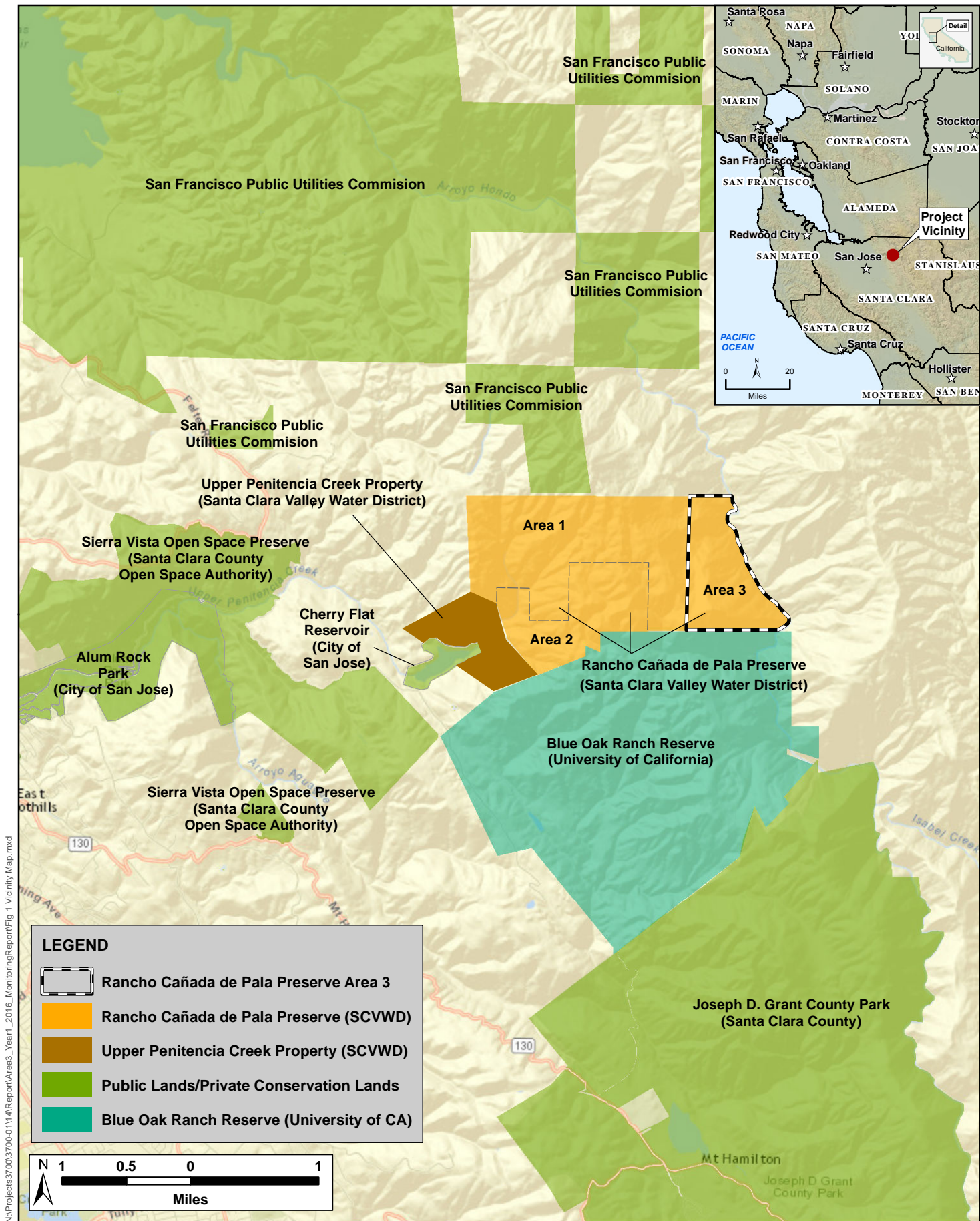
OSA staff monitored the Conservation Easement and found no violations (see Appendix D for the Conservation Easement monitoring report). The Property is being monitored, maintained,

and managed in a manner that is preserving its conservation value, consistent with the SCVWD's mitigation goals, the conservation easement, and the mission of the OSA.

### 4.0 Suggested Management Plan Revisions

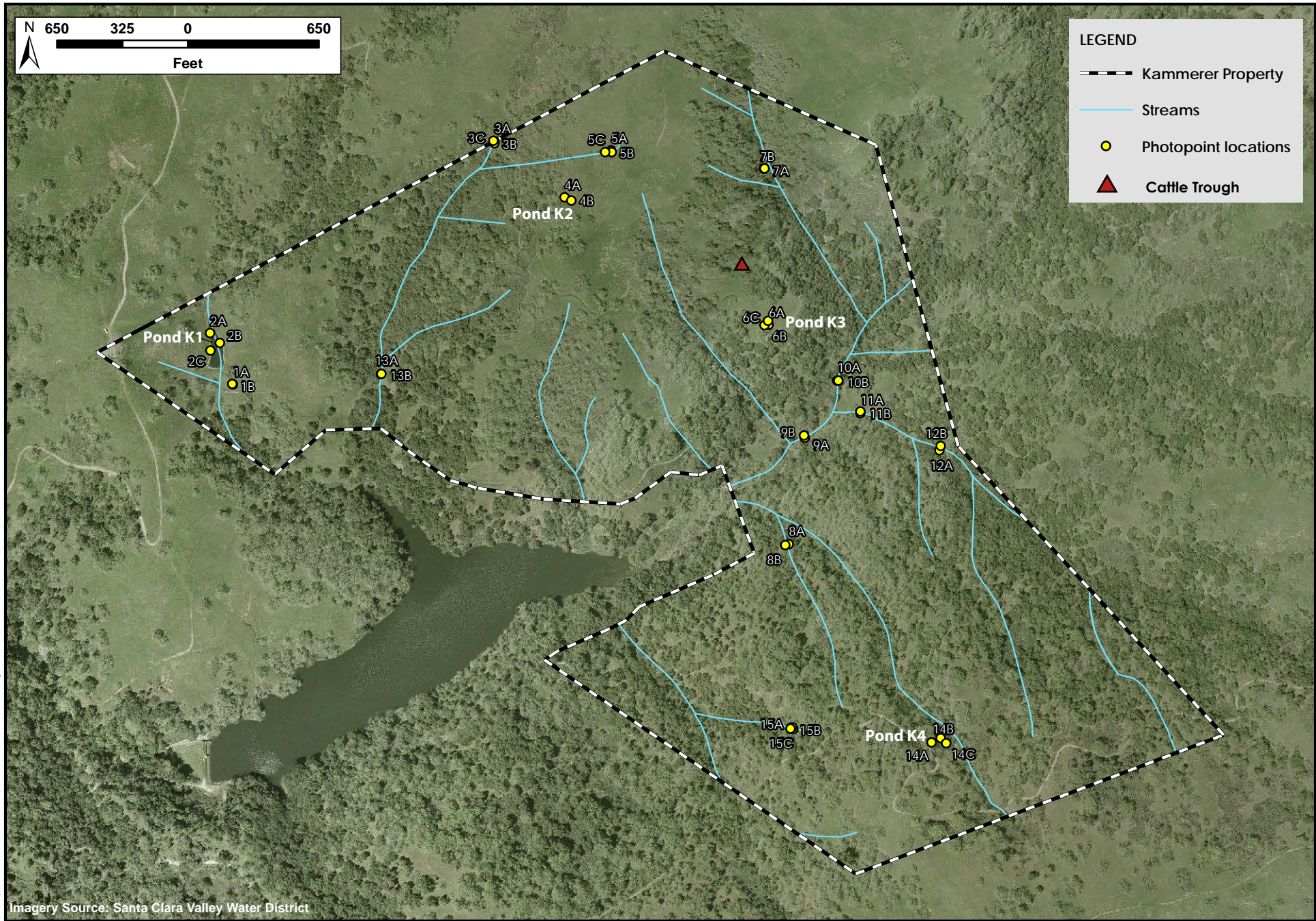
The results from the third year of monitoring and management indicate that the LTMP is working. No major problems were noted with the Property that require adaptive management. There were no violations noted in the Conservation Easement monitoring for the Property. There are no revisions recommended to the LTMP at this time.

# APPENDIX A



N:\Projects\37003700-0114\Report\Area3\_Year1\_2016\_MonitoringReport\Fig 1 Vicinity Map.mxd

Figure 1: Vicinity Map  
 Rancho Cañada de Pala Preserve Area 3 Year 1 (2016) Monitoring Report  
 November 2016



N:\Projects\3200\3270-02\Reports\Baseline Conditions\Figure 2 Baseline Conditions.mxd

**Figure 2: Photopoint Locations at Aquatic Monitoring Stations**

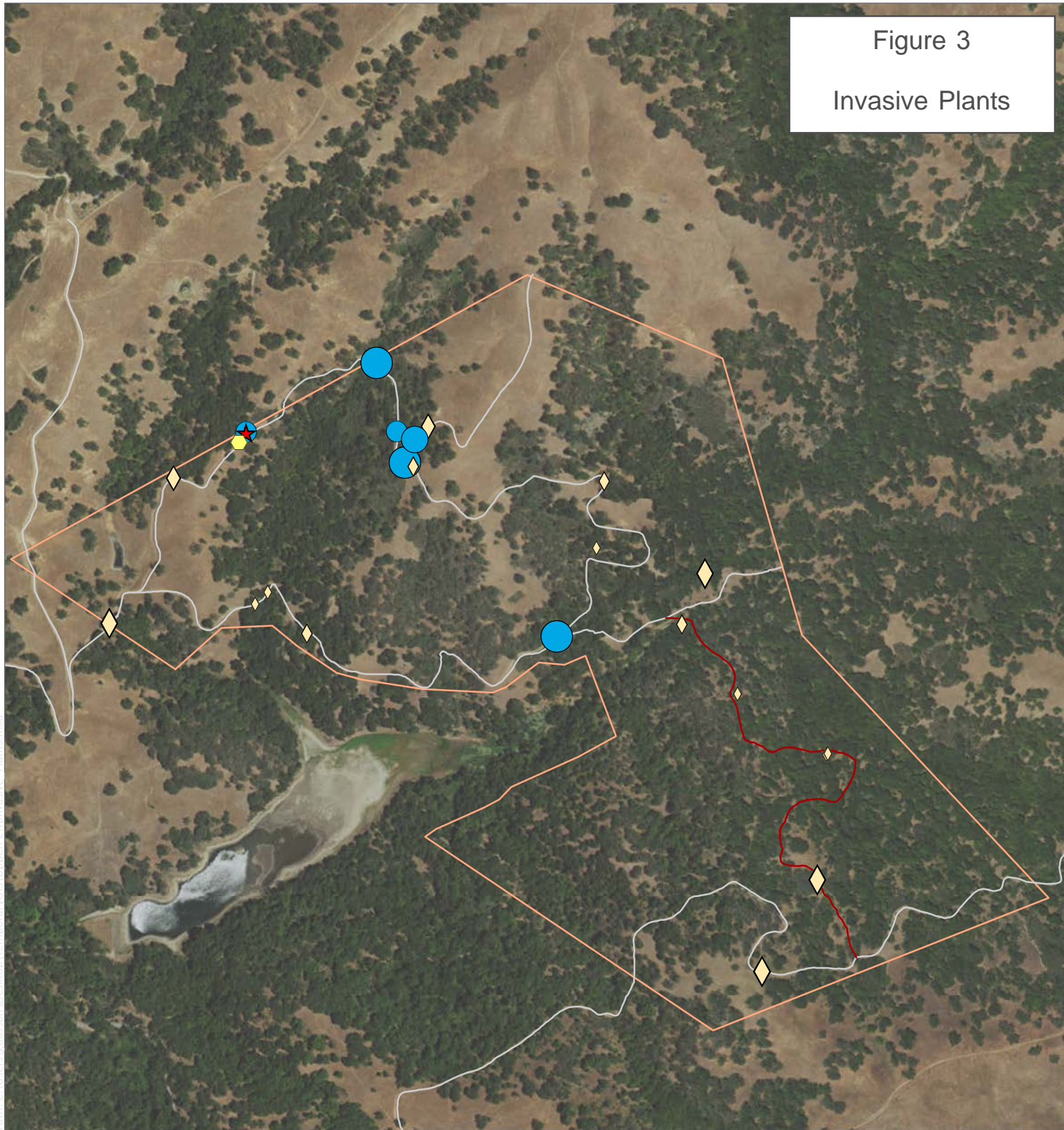
Spring 2014 Aquatic Habitat Monitoring Report  
SCVWD Kammerer Property (3270-32)

Created by H.T. Harvey January 2015, updated by Open Space Authority December 2015



# SCVWD UPPER PENITENCIA CREEK PROPERTY

Figure 3  
Invasive Plants



Invasive Plant Species (the size of the symbol is proportional to size of occurrence)

- ◇ Italian thistle    ★ Milk thistle    ⬡ Summer mustard    ● Tocalote
- Property Boundary    — Drivable Road    — Abandoned Road

Path: C:\Users\yghasson\Desktop\Tomorrow\CS\UpperPenita\Invasive\_Plants.mxd

# APPENDIX B



1 Headcut below Roadway at Station 1.JPG



1A Facing Upstream.JPG



1A Opposite Bank.JPG



1B Facing Downstream.JPG



2 Downstream of Spillway.JPG



2 On Dam.JPG



2A Facing South.JPG



2B Facing North.JPG



2B Facing West.JPG



2C Facing East.JPG



2C Facing South.JPG



3A Facing Upstream.JPG



3B Opposite Bank.JPG



3C Opposite Bank.JPG



4 View From Dam.JPG



4A Facing North.JPG



4B Facing Southwest.JPG



5A Opposite Bank.JPG



5B Facing Upstream.JPG



5B Opposite Bank.JPG



5C Facing Downstream.JPG



5C Facing Upstream.JPG



6B Facing North.JPG



6B Facing West.JPG





7 Downstream of Springbox.JPG



7 Upstream of Springbox.JPG



7A Facing Upstream.JPG



7B Facing Downstream (With Springbox).JPG



8A Facing Downstream.JPG



8A Opposite Bank.JPG



8B Facing Upstream.JPG



8B Opposite Bank.JPG



09B Facing Downstream.JPG



09B Facing Upstream.JPG



11A Facing Downstream.JPG



11B Facing Upstream.JPG



13 Rut in Road.JPG



13A Facing Downstream.JPG



13A Opposite Bank.JPG



13B Facing Upstream.JPG



14 Ephemeral Drainage to Pond.JPG



14 South Bank From Pond Bottom.JPG



14A Facing East.JPG



14B Facing North.JPG



14B Facing Northwest.JPG



14C Facing Southeast.JPG



15A Opposite Bank.JPG



15B Opposite Bank.JPG



15C Facing Downstream.JPG



15C Facing Upstream.JPG

## 2017 Aquatic Habitat Monitoring Stations Summary Upper Penitencia Creek Property

### Station 1.

This aquatic monitoring station is located at an ephemeral stream that serves as the overflow channel for Frog Pond. The stream was dry. Vegetation includes one mature valley oak (*Quercus lobata*), surrounded by annual grasslands. No saplings or seedlings were observed.

Cattle disturbance was not observed at this station, however they were seen just downstream of this site. The stream banks were unstable and had either exposed soil or bedrock. The areas with bedrock will stabilize the banks. Wash out from the road contributed to a large headcut (approximately 10' deep) near the roadway. The conditions at this site were similar to baseline conditions observed in 2014 and to conditions observed in 2016. The site should continue to be monitored to ensure the headcut and gullies do not increase in size. Re-directing runoff away from the road should be considered. The culvert located downstream of the monitoring station was cleaned out in 2015 and is functioning, which helped protect the road this winter.

### Station 2.

This aquatic monitoring station is located at a perennial pond. The pond depth was not measured but was more than 2 feet deep and was approximately 15 feet away from the spillway. Woody vegetation included valley oak and poison oak (*Toxicodendron diversilobum*).

Recent cattle disturbance was observed with cow pies on the dam. The cattle trails around the pond are more evident than in 2016. The wetland vegetation at the inlet of the pond and around the pond perimeter has decreased from 2016, but increased from baseline conditions in 2014. The condition of the pond should continue to be monitored. If conditions continue to decrease partial fencing of the pond should be explored.

### Station 3.

This aquatic monitoring station is located at the intersection of a road and ephemeral stream. No water was observed in the channel. Woody vegetation included valley oak, poison oak, coast live oak (*Quercus agrifolia*), California bay (*Umbellularia californica*), common snowberry (*Symphoricarpos albus*), coyote brush (*Baccharis pilularis*), California sagebrush (*Artemisia californica*), and sticky monkeyflower (*Mimulus aurantiacus*).

There was a faint cattle trail observed headed upstream from the road, parallel to the stream, but no other cattle impacts were observed. A small head cut (~4') was observed downstream of the road, but it had not grown since 2014. The shallow rut in the road caused by sheetflow observed in 2014 has increased slightly. Vegetation at the site looks similar to 2016, but increased since 2014. The site should be checked after a large storm event to make sure the woody vegetation in the channel does not impede flows or the sheetflow across the road washes out the road.



**Station 4.**

This aquatic monitoring station is located at a small ephemeral pond which was dry at the time of monitoring. Woody vegetation at the site included California buckeye (*Aesculus californica*) and valley oak.

Cattle disturbance was minimal, although there were cowpies in the pond and cow prints (in addition to deer and pig hoof prints). The banks of the pond were more vegetated than 2015 and 2014 (when they were bare), and similar to 2016. The condition of the pond should continue to be monitored. Future modifications should be considered so that the pond holds water longer and can potentially provide breeding habitat for amphibians.

**Station 5.**

This aquatic monitoring station is located at an ephemeral stream. There was no water in the channel at the time of monitoring. Woody vegetation included valley oak and poison oak.

Minimal cattle disturbance was observed. There were no hoofprints observed as in 2014 and there was more vegetation overall. The stream banks near the monitoring station are exposed due to the cattle trail just upstream of the station that caused a 5' headcut, but further upstream and downstream the banks are vegetated and stable. The banks around the valley oak and poison oak are bare from water going around the tree. No further erosion was observed since 2014.

**Station 6.**

This aquatic monitoring station is located at a seasonal pond. No water was present during the survey. There is an irrigation pipe that can feed the pond from a cattle trough fed by an existing stream (the pond is also fed through water runoff). Woody vegetation includes valley oaks.

There was even less evidence of cattle disturbance observed than in 2015, and similar conditions to 2016. The banks have become more vegetated since 2014 and there is more wetland vegetation in the pond with no erosion observed. The condition of the pond should continue to be monitored. Future modifications should be considered so that the pond holds water longer and can potentially provide breeding habitat for amphibians.

**Station 7.**

This aquatic monitoring station is located at an ephemeral stream that was dry at the time of survey. Woody vegetation included coast live oak, California bay, and poison oak.

Erosion was observed at this station. Past erosion seemed to be partially caused by cattle disturbance, although in 2016 and this year there was no evidence of cattle disturbance. The site is likely too steep for cattle to access regularly. Tree roots, soil and bedrock were exposed, with several undercuts present. These conditions are similar to those noted in previous years. There are steep slopes at this site and a lack of vegetation in the understory, which is likely the

cause of erosion and it is also likely that the erosion will continue. The 12' head cut that was observed in 2014 has not continued to grow. This year was a wet year and the conditions are similar to 2015 and 2016. The site should continue to be monitored, particularly the banks and headcut.

#### **Station 8.**

This aquatic monitoring station is located at an ephemeral stream that was dry at the time of survey. Woody vegetation includes California bay, coast live oak, valley oak, common snowberry, and poison oak. There is little understory and the banks and hillsides are covered in leaf litter.

The cow disturbance observed in 2014 was not present. No cow pies or hoof prints were observed at this station. The cattle trails were faint, although they are causing some erosion. The steep slopes above the stream banks are causing erosion and should also be monitored. The steep slopes in the vicinity did not have evidence of vegetation trampling that appeared to be from wild pigs (*Sus scrofa*) as seen in 2016. The site should continue to be monitored, including the surrounding slopes, for erosion and sedimentation.

#### **Station 9.**

This aquatic monitoring station is located at an intermittent section of Upper Penitencia Creek with a cobbly, riverwash substrate. There was 1 -2 inches of water in the channel at the time of the survey. Woody vegetation included black oak, California bay, poison oak, common snowberry, coyote brush, California sycamore, California rose, sandbar willow, and hollyleaf cherry.

Cow pies were observed in the stream bed (seen in 2014, but not in 2016). No erosion issues were present in 2014 – 2016 and none were observed this year. This site is a good example of sycamore alluvial woodland which is a sensitive habitat type. Numerous bird species were observed at this site. The site should continue to be monitored to ensure it remains in good condition.

#### **Station 10.**

This aquatic monitoring station was not monitored due to the redundancy with station 9 and 11 per the recommendation in the 2015 Annual Report.

#### **Station 11.**

This aquatic monitoring station is located at an ephemeral stream which had 0.5 - 1 inch of water in it. Woody vegetation included valley oak, coast live oak, California bay, poison oak, coyote brush, common snowberry, and California coffeeberry (*Frangula californica*).

There was little evidence of cattle disturbance along the banks, although none of it is bare. Stream banks are low (6 to 18 inches high), gently sloped, and vegetated. A small headcut had formed just downstream of the woody debris. This should continue to be monitored.

**Station 12.**

This aquatic monitoring station was not monitored due to steepness and lack of access per the recommendation in the 2016 Annual Report.

**Station 13.**

This station is located at a dirt road crossing of an ephemeral stream. The stream was dry at the time of the survey. Woody vegetation included valley oak, coast live oak, California bay, poison oak, common snowberry, and honeysuckle.

Moderate amounts of cattle disturbance and erosion was noted. Conditions were similar to 2014 - 2016. Sections of the banks were undercut, although rocks and tree roots provide some stability. The 6-12 inch rut in the roadway had not increased since 2014 despite the winter storms. The site should continue to be monitored.

**Station 14.**

This station is located at a seasonal pond, ephemeral stream, and seasonal wetland. There was no water at the time of the survey. Woody vegetation included California coffeeberry, coyote brush, sticky monkeyflower, poison oak, valley oak, coast live oak, California bay, common snowberry, current (*Ribes* sp.), and toyon. There are many valley oak saplings on the north bank.

Disturbance from cattle was minimal. There were faint cattle trails and minor erosion which had improved since 2014. There was a pig wallow located near the pond inlet. Vegetation along the banks of the ephemeral stream feeding the pond and the wetland vegetation around the pond increased in since 2014. This site should continue to be monitored and future modifications should be considered so that the pond holds water longer and can potentially provide breeding habitat for amphibians.

**Station 15.**

This station is located at an ephemeral stream that was dry at the time of the survey. Woody vegetation included blue oak, valley oak, buckeye, and California bay.

This station appeared to be frequented by wild pigs, with evidence of pig scat, but the damage was less than previous years. The banks are steep but with the increase in vegetation from previous years there is little to no erosion occurring. Pig scat was found nearby. The site should continue to be monitored.

## Aquatic Habitat Monitoring Checklist – Upper Penitencia Creek

Monitor Name Galli Basson Monitoring Date 6/27/17 Monitoring Station 1 Aquatic Feature Type ephemeral stream

Resource Status				
Water present (and depth)?		N		
Woody vegetation present (and species)?		Quercus lobata		
Seedlings or saplings of woody plants observed?		N		
Potential Adverse Conditions				
Question	Answer <sup>1</sup>	Location, Description of Condition, Potential Cause	Comparison to Prior Monitoring Condition	Recommendations?
Cattle observed in streams or riparian areas?	N	Using trail along spillway to get to pond	No change	
Bare soil in or along banks of feature?	Y	Entire length of the bank is bare, some of it down to bedrock. Unstable.	No change	Continue to monitor. Consider road improvements to redirect run-off.
Unstable or eroding stream banks (e.g., rills, gullies)?	Y	Few gullies and plunge pools created by scouring along the stream bed	No change	
Erosion at road or culvert (e.g., rills, gullies)?	Y	Erosion from the pond spillway and from road. Could wash out road if it continues.	No change	Monitor culvert to ensure draining properly (was cleaned in 2015)
Headcuts present?	Y	Near spillway and along length of stream. Also near roadway due to road runoff.	No change	
Vegetation trampling evident?	N		No change	
Excessive sedimentation evident?	Y	On upper reach of stream where it has not eroded to bedrock yet.	No change	
Visual water quality problems evident (debris, odor, color?)	N		No change	
Damage from pigs, deer, or elk?	N		No change	
Unusual disturbance (e.g., fire, ORV, trespassing)?	N		No change	
<b>Notes:</b> Less vegetation in the drainage – likely that pond overflowed and scoured through drainage this year.				

<sup>1</sup>Y = Yes, N = No, NS = Not Sure, NA = Not Applicable

## Aquatic Habitat Monitoring Checklist – Upper Penitencia Creek

Monitor Name Galli Basson Monitoring Date 6/27/17 Monitoring Station 2 Aquatic Feature Type perennial pond

Resource Status				
Water present (and depth)?	Y, greater than 2 feet (~15 ft. from spillway)			
Woody vegetation present (and species)?	<i>Toxicodendron diversilobum, Quercus lobata</i>			
Seedlings or saplings of woody plants observed?	<i>Toxicodendron diversilobum</i>			
Potential Adverse Conditions				
Question	Answer <sup>1</sup>	Location, Description of Condition, Potential Cause	Comparison to Prior Monitoring Condition	Recommendations?
Cattle observed in streams or riparian areas?	Y	Cattle trails were observed around the pond. Droppings on the dam.	Degraded	Continue to monitor pond.
Bare soil in or along banks of feature?	Y	Cattle trail around the pond	Degraded	
Unstable or eroding stream banks (e.g., rills, gullies)?	N			
Erosion at road or culvert (e.g., rills, gullies)?	N			
Headcuts present?	N			
Vegetation trampling evident?	Y	Along cattle trails.	Degraded	
Excessive sedimentation evident?	N			
Visual water quality problems evident (debris, odor, color?)	Y	Some algae, but generally clear.		
Damage from pigs, deer, or elk?	N			
Unusual disturbance (e.g., fire, ORV, trespassing)?	N			
<p><b>Notes:</b> Wetland vegetation near inlet and along banks of pond decreased. Bullfrogs and fish were present in the pond. Undercutting under spillway should be monitored.</p>				

<sup>1</sup> Y = Yes, N = No, NS = Not Sure, NA = Not Applicable

## Aquatic Habitat Monitoring Checklist – Upper Penitencia Creek

Monitor Name Galli Basson Monitoring Date 6/29/17 Monitoring Station 3 Aquatic Feature Type intermittent stream

Resource Status				
Water present (and depth)?	N			
Woody vegetation present (and species)?	<i>Toxicodendron diversilobum, Quercus lobata, Artemisia californica, Mimulus aurianticus, Baccharis pilularis, Symphoricarpus albus, Umbellularia californica, Quercus agrifolia</i>			
Seedlings or saplings of woody plants observed?	<i>Toxicodendron diversilobum, Artemisia californica, Baccharis pilularis, Mimulus aurianticus</i>			
Potential Adverse Conditions				
Question	Answer <sup>1</sup>	Location, Description of Condition, Potential Cause	Comparison to Prior Monitoring Condition	Recommendations?
Cattle observed in streams or riparian areas?	N	Light cattle trail upstream from road.	Improved.	
Bare soil in or along banks of feature?	Y	Along the road, but otherwise heavily vegetated.	Improve. More woody vegetation along banks.	
Unstable or eroding stream banks (e.g., rills, gullies)?	Y	Woody vegetation stabilizing.	Improve. More woody vegetation along banks.	
Erosion at road or culvert (e.g., rills, gullies)?	Y	Road could wash out in wet years or large storm events. Dig might be bigger.	Little to no change.	
Headcuts present?	Y	4' deep just downstream of road (due to road sheetflow)	Improve. Same depth, but with more woody vegetation.	
Vegetation trampling evident?	N			
Excessive sedimentation evident?	N			
Visual water quality problems evident (debris, odor, color?)	Y	Debris and dead vegetation in the stream bed could impede flows.	More vegetation both upstream and downstream of road. Could impede flows, but it also helps stabilize banks.	
Damage from pigs, deer, or elk?	N			
Unusual disturbance (e.g., fire, ORV, trespassing)?	N			
<b>Notes:</b>				

<sup>1</sup>Y = Yes, N = No, NS = Not Sure, NA = Not Applicable

## Aquatic Habitat Monitoring Checklist – Upper Penitencia Creek

Monitor Name Galli Basson Monitoring Date 6/29/17 Monitoring Station 4 Aquatic Feature Type ephemeral pond

Resource Status				
Water present (and depth)?		N		
Woody vegetation present (and species)?		<i>Quercus lobata, Aesculus californica</i>		
Seedlings or saplings of woody plants observed?		N		
Potential Adverse Conditions				
Question	Answer <sup>1</sup>	Location, Description of Condition, Potential Cause	Comparison to Prior Monitoring Condition	Recommendations?
Cattle observed in streams or riparian areas?	Y	A combination of cattle, pig, and deer prints observed in the pond, as well as cowpies in the pond.	Slightly degrading.	Continue to monitor. Consider modifications to pond to hold water longer.
Bare soil in or along banks of feature?	Y	Along the dam and east bank, and trail leading down to water.	Same.	
Unstable or eroding stream banks (e.g., rills, gullies)?	Y	Minor on the north bank	Improve. More vegetation on bank than previous year.	
Erosion at road or culvert (e.g., rills, gullies)?	N			
Headcuts present?	N			
Vegetation trampling evident?	N			
Excessive sedimentation evident?	N			
Visual water quality problems evident (debris, odor, color?)	N			
Damage from pigs, deer, or elk?	N			
Unusual disturbance (e.g., fire, ORV, trespassing)?	N			
<b>Notes:</b> Pond held water this year (although dry at time of survey).				

<sup>1</sup>Y = Yes, N = No, NS = Not Sure, NA = Not Applicable



## Aquatic Habitat Monitoring Checklist – Upper Penitencia Creek

Monitor Name Galli Basson Monitoring Date 6/29/17 Monitoring Station 5 Aquatic Feature Type ephemeral stream

Resource Status				
Water present (and depth)?		N		
Woody vegetation present (and species)?		<i>Quercus lobata, Toxicodendron diversilobum</i>		
Seedlings or saplings of woody plants observed?		<i>Toxicodendron diversilobum, Quercus lobata</i>		
Potential Adverse Conditions				
Question	Answer <sup>1</sup>	Location, Description of Condition, Potential Cause	Comparison to Prior Monitoring Condition	Recommendations?
Cattle observed in streams or riparian areas?	N	No cattle trails observed from this year.	No change.	Continue to monitor.
Bare soil in or along banks of feature?	Y	Bare areas near where cattle trail crosses stream, but upstream and downstream is vegetated and stable.	Maintained.	
Unstable or eroding stream banks (e.g., rills, gullies)?	Y	Minimal.	Maintained.	
Erosion at road or culvert (e.g., rills, gullies)?	N/A			
Headcuts present?	Y	5' deep caused by cattle trail.	Maintained.	
Vegetation trampling evident?	N		Improved.	
Excessive sedimentation evident?	N			
Visual water quality problems evident (debris, odor, color?)	Y	Boulder and tree could impede flows. Looks like water goes around it, but causes sedimentation.	Maintained.	
Damage from pigs, deer, or elk?	N			
Unusual disturbance (e.g., fire, ORV, trespassing)?	N			
<b>Notes:</b>				

<sup>1</sup>Y = Yes, N = No, NS = Not Sure, NA = Not Applicable

## Aquatic Habitat Monitoring Checklist – Upper Penitencia Creek

Monitor Name Galli Basson Monitoring Date 6/29/17 Monitoring Station 6 Aquatic Feature Type ephemeral pond

Resource Status				
Water present (and depth)?		N		
Woody vegetation present (and species)?		<i>Quercus lobata</i>		
Seedlings or saplings of woody plants observed?		N		
Potential Adverse Conditions				
Question	Answer <sup>1</sup>	Location, Description of Condition, Potential Cause	Comparison to Prior Monitoring Condition	Recommendations?
Cattle observed in streams or riparian areas?	Y	Old cow pies in the center of pond	No change	Continue to monitor. Consider modifications to the pond so it holds water longer.
Bare soil in or along banks of feature?	Y	Some bare areas on banks, but similar to last year.	Improve	
Unstable or eroding stream banks (e.g., rills, gullies)?	N		No change	
Erosion at road or culvert (e.g., rills, gullies)?	N		No change	
Headcuts present?	N		No change	
Vegetation trampling evident?	N	Wetland vegetation in pond.	No change	
Excessive sedimentation evident?	N		No change	
Visual water quality problems evident (debris, odor, color?)	N		No change	
Damage from pigs, deer, or elk?	N		No change	
Unusual disturbance (e.g., fire, ORV, trespassing)?	N		No change	
<b>Notes:</b> Irrigation pipe outlet over aquatic bed fed by cattle trough (which is fed by a spring).				

<sup>1</sup> Y = Yes, N = No, NS = Not Sure, NA = Not Applicable

## Aquatic Habitat Monitoring Checklist – Upper Penitencia Creek

Monitor Name Galli Basson Monitoring Date 6/29/17 Monitoring Station 7 Aquatic Feature Type ephemeral stream

Resource Status				
Water present (and depth)?		N		
Woody vegetation present (and species)?		<i>Quercus agrifolia, Toxicodendron diversilobum, Umbellularia californica</i>		
Seedlings or saplings of woody plants observed?		<i>Toxicodendron diversilobum</i>		
Potential Adverse Conditions				
Question	Answer <sup>1</sup>	Location, Description of Condition, Potential Cause	Comparison to Prior Monitoring Condition	Recommendations?
Cattle observed in streams or riparian areas?	N	Cattle trail has almost disappeared. Likely too steep for them to easily access.		Continue to monitor.
Bare soil in or along banks of feature?	Y	Exposed banks and tree roots. Undercut beneath roots.	Similar. In some areas it looks more stable. Unstable areas, especially around roots look the same as previous year.	
Unstable or eroding stream banks (e.g., rills, gullies)?	Y	Erosion from cattle trail and under tree roots.	No change.	
Erosion at road or culvert (e.g., rills, gullies)?	N/A			
Headcuts present?	Y	12' deep on west bank.	No change.	
Vegetation trampling evident?	N	Wetland vegetation near spring.		
Excessive sedimentation evident?	Y	Some bedrock is exposed and stabilizing bank.	No change.	
Visual water quality problems evident (debris, odor, color?)	Y	Debris (logs and rocks) may impede flows.	No change.	
Damage from pigs, deer, or elk?	N			
Unusual disturbance (e.g., fire, ORV, trespassing)?	N			
<b>Notes:</b> Steep slopes. Just downstream of spring box which had water. Wetland vegetation near spring.				

<sup>1</sup> Y = Yes, N = No, NS = Not Sure, NA = Not Applicable

## Aquatic Habitat Monitoring Checklist – Upper Penitencia Creek

Monitor Name Galli Basson Monitoring Date 6/27/17 Monitoring Station 8 Aquatic Feature Type ephemeral stream

Resource Status				
Water present (and depth)?	N			
Woody vegetation present (and species)?	<i>Quercus agrifolia, Quercus lobata, Toxicodendron diversilobum, Umbellularia californica, Symphoricarpus albus</i>			
Seedlings or saplings of woody plants observed?	<i>Toxicodendron diversilobum, Umbellularia californica, Quercus agrifolia, Symphoricarpus albus</i>			
Potential Adverse Conditions				
Question	Answer <sup>1</sup>	Location, Description of Condition, Potential Cause	Comparison to Prior Monitoring Condition	Recommendations?
Cattle observed in streams or riparian areas?	Y	Very faint cattle trails.	No change.	Continue to monitor.
Bare soil in or along banks of feature?	Y	Covered in leafy debris. Somewhat stable. Banks are not very high (~2') and gently sloping.	Improved. Did not see exposed tree roots.	Continue to monitor.
Unstable or eroding stream banks (e.g., rills, gullies)?	Y	Mix of rock and soil. Slight erosion.	Improved.	Continue to monitor.
Erosion at road or culvert (e.g., rills, gullies)?	N/A			
Headcuts present?	N			
Vegetation trampling evident?	Y	Minimal at the site.	Improved. No evidence of pig trampling from last year.	Continue to monitor.
Excessive sedimentation evident?	N			
Visual water quality problems evident (debris, odor, color?)	Y	Debris does not appear to impede flow (flow went around downed log).	Maintain.	Continue to monitor.
Damage from pigs, deer, or elk?	N			
Unusual disturbance (e.g., fire, ORV, trespassing)?	N			
<b>Notes:</b> (directions: at gate near UP Creek and property border, don't go through. Head up hill to upper gate (usually open), go through and follow stream up and around).				

<sup>1</sup> Y = Yes, N = No, NS = Not Sure, NA = Not Applicable

## Aquatic Habitat Monitoring Checklist – SCVWD Coyote Ridge Preserve

Monitor Name Galli Basson Monitoring Date 6/27/17 Monitoring Station 9 Aquatic Feature Type intermittent stream

Resource Status				
Water present (and depth)?		Y– cobbly bottom. 1 – 2 " of water.		
Woody vegetation present (and species)?		<i>Quercus kelloggii, Toxicodendron diversilobum, Umbellularia californica, Symphoricarpus albus, Platanus racemosa, Rosa californica, Salix exigua, Prunus ilicifolia, Bacchuris paluris,</i>		
Seedlings or saplings of woody plants observed?		<i>Toxicodendron diversilobum, Umbellularia californica, Rosa californica, Salix exigua, Symphoricarpus albus</i>		
Potential Adverse Conditions				
Question	Answer <sup>1</sup>	Location, Description of Condition, Potential Cause	Comparison to Prior Monitoring Condition	Recommendations?
Cattle observed in streams or riparian areas?	Y	Cow pies in the channel.	Degraded. Cow pies not seen in 2016 (but seen in 2014)	Continue to monitor
Bare soil in or along banks of feature?	N	Low banks covered in vegetation.	Same	Continue to monitor
Unstable or eroding stream banks (e.g., rills, gullies)?	N		Same	Continue to monitor
Erosion at road or culvert (e.g., rills, gullies)?	N		Same	Continue to monitor
Headcuts present?	N		Same	Continue to monitor
Vegetation trampling evident?	Y	On banks along stream	Degraded	Continue to monitor
Excessive sedimentation evident?	N		Same	Continue to monitor
Visual water quality problems evident (debris, odor, color?)	Y	Some algal growth	Degraded	Continue to monitor
Damage from pigs, deer, or elk?	N		Same	Continue to monitor
Unusual disturbance (e.g., fire, ORV, trespassing)?	N		Same	Continue to monitor
<b>Notes:</b>				

<sup>1</sup> Y = Yes, N = No, NS = Not Sure, NA = Not Applicable

## Aquatic Habitat Monitoring Checklist – Upper Penitencia Creek

Monitor Name Galli Basson Monitoring Date 6/27/17 Monitoring Station 11 Aquatic Feature Type ephemeral stream

Resource Status				
Water present (and depth)?		Y, 0.5 – 1"		
Woody vegetation present (and species)?		<i>Toxicodendron diversilobum, Quercus agrifolia, Quercus lobata, Umbellularia californica, Baccharis pilularis, Symphoricarpos albus, Frangula californica</i>		
Seedlings or saplings of woody plants observed?		<i>Toxicodendron diversilobum, Umbellularia californica, Quercus agrifolia, Symphoricarpos albus</i>		
Potential Adverse Conditions				
Question	Answer <sup>1</sup>	Location, Description of Condition, Potential Cause	Comparison to Prior Monitoring Condition	Recommendations?
Cattle observed in streams or riparian areas?	Y	Along banks.	Degraded.	Continue to monitor.
Bare soil in or along banks of feature?	N		Improved.	
Unstable or eroding stream banks (e.g., rills, gullies)?	N		Same	
Erosion at road or culvert (e.g., rills, gullies)?	N	Near abandoned road	Same	
Headcuts present?	Y	Small headcuts upstream and downstream of station where debris is in channel.	Same	
Vegetation trampling evident?	Y	Along the banks. (minor)	Same	
Excessive sedimentation evident?	N		Same	
Visual water quality problems evident (debris, odor, color?)	N		Same	
Damage from pigs, deer, or elk?	N		Improved – some elk or deer browse seen in 2014.	
Unusual disturbance (e.g., fire, ORV, trespassing)?	N		Same.	
<b>Notes:</b>				

<sup>1</sup> Y = Yes, N = No, NS = Not Sure, NA = Not Applicable

## Aquatic Habitat Monitoring Checklist – Upper Penitencia Creek

Monitor Name Galli Basson Monitoring Date 6/27/17 Monitoring Station 13 Aquatic Feature Type ephemeral stream

Resource Status				
Water present (and depth)?		N		
Woody vegetation present (and species)?		<i>Toxicodendron diversilobum, Lonicera sp., Quercus lobata, Quercus agrifolia, Umbellularia californica, Symphoricarpos albus,</i>		
Seedlings or saplings of woody plants observed?		<i>Toxicodendron diversilobum, Umbellularia californica</i>		
Potential Adverse Conditions				
Question	Answer <sup>1</sup>	Location, Description of Condition, Potential Cause	Comparison to Prior Monitoring Condition	Recommendations?
Cattle observed in streams or riparian areas?	N	Faint cattle trails.	Same	Continue to monitor
Bare soil in or along banks of feature?	Y	Some bare areas along banks. Also exposed bedrock. Appears due to winter storms.	Same	Continue to monitor
Unstable or eroding stream banks (e.g., rills, gullies)?	Y	Some erosion where steep. Some stabilized by tree roots.	Same	Continue to monitor
Erosion at road or culvert (e.g., rills, gullies)?	Y	Small rut in road caused by sheet flow.	Same	Continue to monitor
Headcuts present?	Y	Banks are cut about 7 feet.	Same	Continue to monitor
Vegetation trampling evident?	N		Same	Continue to monitor
Excessive sedimentation evident?	N		Same	Continue to monitor
Visual water quality problems evident (debris, odor, color?)	Y	Some obstructions by roots or downed branches. Would not impede flow.	Same	Continue to monitor and remove debris in channel if flows become impeded.
Damage from pigs, deer, or elk?	N		Same	Continue to monitor
Unusual disturbance (e.g., fire, ORV, trespassing)?	N		Same	Continue to monitor
<b>Notes:</b>				

<sup>1</sup> Y = Yes, N = No, NS = Not Sure, NA = Not Applicable

## Aquatic Habitat Monitoring Checklist – SCVWD Upper Penitencia Creek

Monitor Name Galli Basson Monitoring Date 6/27/17 Monitoring Station 14 Aquatic Feature Type ephemeral pond/seasonal wetland

Resource Status				
Water present (and depth)?	N			
Woody vegetation present (and species)?	<i>Frangula californica, Baccharis pilularis, Mimulus aurantiacus, Toxicodendron diversilobum, Quercus lobata, Quercus agrifolia, Umbellularia californica, Symphoricarpos albus, Ribes sp., Heteromeles arbutifolia</i>			
Seedlings or saplings of woody plants observed?	<i>Toxicodendron diversilobum, Quercus lobata, Baccharis pilularis, Symphoricarpos albus</i>			
Potential Adverse Conditions				
Question	Answer <sup>1</sup>	Location, Description of Condition, Potential Cause	Comparison to Prior Monitoring Condition	Recommendations?
Cattle observed in streams or riparian areas?	N		Improved.	Continue to monitor. Future modifications should be considered so that the pond holds water longer and can potentially provide breeding habitat for amphibians.
Bare soil in or along banks of feature?	N		Improved.	Continue to monitor
Unstable or eroding stream banks (e.g., rills, gullies)?	N		Same.	Continue to monitor
Erosion at road or culvert (e.g., rills, gullies)?	N	Near roadway not generally used by vehicles.	Same	Continue to monitor
Headcuts present?	N		Improved.	Continue to monitor
Vegetation trampling evident?	N		Improved.	Continue to monitor
Excessive sedimentation evident?	N	No recent evidence.	Same.	Continue to monitor
Visual water quality problems evident (debris, odor, color?)	N		Improved.	Continue to monitor
Damage from pigs, deer, or elk?	Y	A pig wallow below stream as it enters pond.	Degraded.	Continue to monitor
Unusual disturbance (e.g., fire, ORV, trespassing)?	N		Same	Continue to monitor
<b>Notes:</b> Many oak saplings on north bank.				

<sup>1</sup> Y = Yes, N = No, NS = Not Sure, NA = Not Applicable



## Aquatic Habitat Monitoring Checklist – SCVWD Upper Penitencia Creek

Monitor Name Galli Basson Monitoring Date 6/27/17 Monitoring Station 15 Aquatic Feature Type ephemeral stream

Resource Status				
Water present (and depth)?		N		
Woody vegetation present (and species)?		<i>Quercus lobata, Quercus douglasii, Umbellularia californica, Aesculus californica</i>		
Seedlings or saplings of woody plants observed?		N		
Potential Adverse Conditions				
Question	Answer <sup>1</sup>	Location, Description of Condition, Potential Cause	Comparison to Prior Monitoring Condition	Recommendations?
Cattle observed in streams or riparian areas?	N	Trails across drainage appeared to be from pigs	Same	Continue to monitor
Bare soil in or along banks of feature?	N	More vegetated than last year.	Improved	Continue to monitor
Unstable or eroding stream banks (e.g., rills, gullies)?	Y	Banks are steep with some erosion, but with more vegetation than last year.	Improved	Continue to monitor
Erosion at road or culvert (e.g., rills, gullies)?	N/A			
Headcuts present?	N		Same	Continue to monitor
Vegetation trampling evident?	Y	Yes, very faint trail looks like it is from pigs	Same	Continue to monitor
Excessive sedimentation evident?	N	Some sedimentation is occurring.	Improved	Continue to monitor
Visual water quality problems evident (debris, odor, color?)	N		Improved from 2014	Continue to monitor
Damage from pigs, deer, or elk?	Y	Pig scat found nearby	Same	Continue to monitor
Unusual disturbance (e.g., fire, ORV, trespassing)?	N		Same	
<b>Notes:</b>				

<sup>1</sup>Y = Yes, N = No, NS = Not Sure, NA = Not Applicable

# APPENDIX C

December 12, 2017

Galli Basson  
SCVOSA  
33 Las Colinas Lane  
San Jose, CA 95119

Subject: SCVWD Upper Penitencia Synopsis, 2017 RDM monitoring report

Dear Galli,

The *SCVWD – Upper Penitencia Property Synopsis 2017 Residual Dry Matter (RDM) Monitoring Report* is submitted as requested.

**RDM Objectives:**

Residual Dry Matter (RDM) objectives established for the SCVWD-Upper Penitencia Property are.

- 1,000-1,500 lbs/acre for other vegetation types capable of producing 2,000 lbs/acre of RDM in a typical year (annual grassland and oak savanna).

**General:** Grass production was High in 2017 after being near normal production in 2015 and 2016. Livestock were present when the property was surveyed in October of 2017, however use was light in all areas.

**Compliance 2017:** The 2017 RDM survey determined that minimum RDM standards were met in all areas as livestock use was light or only incidental when surveyed in 2017.

**RDM Zone map for 2017** showed that RDM levels for the Upper Penitencia Property were:

**High RDM** levels were recorded for 100% of the surveyed forage areas.

**Exceeds RDM** levels were recorded for 0% of the surveyed forage areas.

**Meets RDM** levels were not of significant size to be mapped in 2017, including the small area in the South-East MU where monitoring site SE-1 is located.

**Below RDM** objectives were not recorded in 2017.

**Management Unit Status map** for 2017 showed that:

There were 3 Grazing subunits with more than 80% of the subunit estimated to have **High RDM** levels, subunits NE, NW and SW. These three subunits received only incidental livestock use in 2017.

The SE subunit is predominately oak woodland, had only incidental livestock use, and was found to have more than 80% of the subunit estimated to **Meet RDM** levels due to the inherent low productivity of the few forage areas.

**Follow-up for year 2018:** Validate the road status layer.

Sincerely,

Keith Guenther  
Certified Rangeland Manager  
CA License #040

# SCVWD – Upper Penitencia 2017 RDM Survey Santa Clara County, California

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Keith Guenther  
Wildland Solutions  
Woodland, CA

December 6, 2017

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## **Part 1-Introduction**

The approximately 222-acre Upper Penitencia Creek Property is located 8 miles northeast of downtown San Jose in unincorporated Santa Clara County. The property is managed by the Santa Clara County Open Space Authority.

### **Purpose of 2017 SCVWD - Residual Dry Matter (RDM) survey**

The purpose of the Upper Penitencia Creek Property 2017 RDM Survey and Report is to monitor Residual Dry Matter (RDM) retention levels as recommended in the November 2014 Santa Clara Valley Water District's "*Upper Penitencia Creek Property Long-term Management Plan.*"

The specific tasks included in this report address the monitoring needs established as Task B2 and Task B3 in the Upper Penitencia LTMP.

## Part 2-Monitoring Residual Dry Matter (RDM)

The RDM monitoring program developed for the SCVWD Upper Pentitencia property in section 6.2.3.2 states that:

*“Information regarding RDM is collected in a practical manner that is adequate to assess how well the RDM goals have been met. The monitoring program is designed to provide the Land Manager useful information on RDM levels as they relate to objectives. The goal is that 80% of each grazing subunit meets the RDM objective (see Grazing Intensity, Section 6.2.2.1).”*

### **RDM Objectives:**

The recommended RDM objectives stated in section 6.2.2.1 Grazing Intensity are:

*“Due to factors such as variations in topography, soils and rainfall, and patchy forage use, a variety of RDM values are expected, but in general the RDM goal for the Property will be 1,000-1,500 lbs/acre.”*

### **Establishing RDM Classes to be utilized in monitoring**

The seven RDM classes recommended for evaluating RDM levels and mapping RDM zones are contained in Table 3 of the Upper Pentitencia LTMP. These classes were developed in a manner described by the publication *“Monitoring Annual Grassland Residual Dry Matter”* (Wildland Solutions 2008).

Vegetation type	RDM objective for Site	Residual Dry Matter (RDM) Level		
		RDM range of values		RDM Class
		% of objective for property	Lbs/acre	
Annual grasslands and oak savanna	1,000 -1,500 lbs/acre RDM	Exceeds 400%	Exceeds 4,000	Very High
		200-400%	2,000-4,000	High
		150-200%	1,500-2,000	Exceeds
		100-150%	1,000-1,500	Meets
		50-100%	500-1,000	Below
		<50%	<500	Low
		<10%	<100	Fire

## **Task B2. RDM Reference monitoring sites:**

The Upper Penitencia LTMP Task B2 process is described as:

*“At each RDM reference plot:*

- 1. Confirm that the location is representative of the general area that year. If not, relocate to a nearby suitable location. GPS any modified location.*
- 2. Take overview photographs in all 4 cardinal directions from the sample point from approximately 5’ above the ground. This is intended to both record vegetation characteristics in the vicinity of site and to provide overview scenes of the property at standardized locations over time.*
- 3. Photograph the RDM plot using “second step” (Robel pole monitoring) as described in Appendix C.*
- 4. Clip and collect all herbage within a 13.25” diameter circular or 12” square frame plot. Weigh the herbage in grams and convert to lbs using the following formulas (Wildland Solutions 2008):*

*Circular 13.25” diameter hoop plot:  
(grams clipped) x 100 = lbs/ac of RDM*

*Square 12” frame plot  
(Grams clipped) x 96 lbs/acre of RDM*

- 5. Note the estimated amount of herbage remaining on ground after the plot is clipped.*
- 6. Note the general composition of sample (annual or perennial grasses, forbs, weeds).*
- 7. Air dry any wet or green samples 2-3 day prior to weighing.”*

There were 6 RDM Reference monitoring sites initially established on the Upper Penitencia property in the 2014 plan. The 6 sites are shown in Figures 1 and 2.

A table with RDM Reference Site/Plot summary information is included as Appendix A. Information provided for each site includes the site location, subunit, RDM objective and annual RDM class estimates for the reference site.



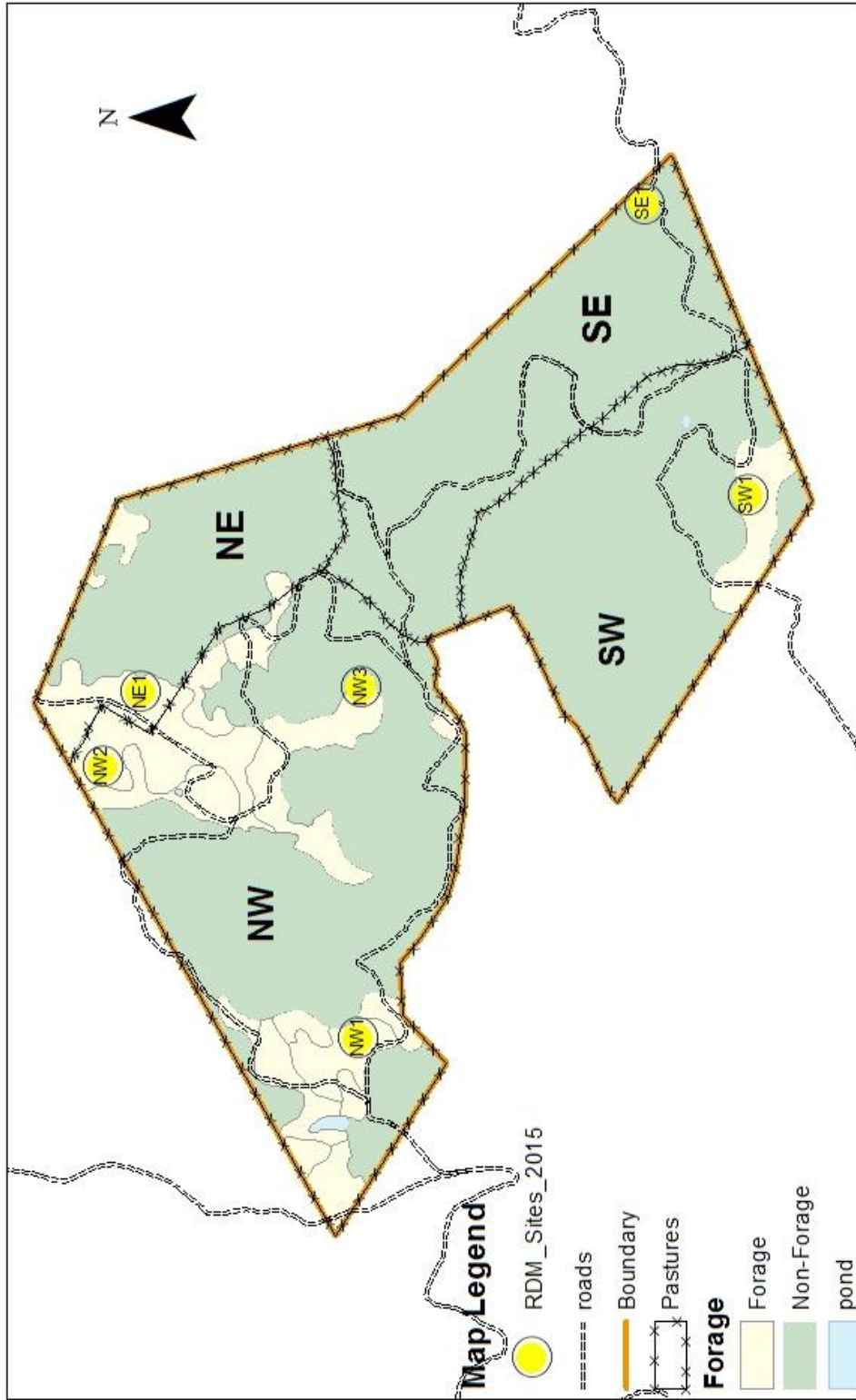
### **Task B3. Subunit RDM Status Monitoring Protocol.**

The Upper Penitencia LTMP states that:

*“After conducting the RDM reference site monitoring and obtaining the results, the amount of RDM can be visually estimated in management subunit according to seven RDM classes listed in Table 3. Each subunit will be evaluated separately, and within each subunit, each target type will be evaluated separately.”*

*“The general location and extent of those areas at least 20 acres in size and not meeting the target RDM levels will be determined in the field either by field measurement, GPS, or mapping onto paper of other field copy (such as the LTMP vegetation map) and then bringing the info into a GIS system. Vegetation is naturally patchy, and grazing use is patchy as well. The predominant condition in an area will determine that RDM level, despite inclusions of smaller areas with either higher or lower levels. This is particularly true of areas with dense stands of live oaks or brush, which will suppress forage production irrespective of livestock use (Frost et al. 1997) and are typically lightly used by livestock because they provide relatively little forage. These areas may not meet the RDM target even in the absence of livestock grazing. For each subunit, the goal is that at least 80% of the subunit will meet the RDM target, considering only those areas with the potential to meet the RDM target. These areas include annual grasslands and deciduous oak savannas or woodlands. Live oak woodlands, mixed oak forests, and shrublands are unlikely to meet the RDM target for the reasons described above and will thus be excluded from RDM monitoring.”*

Figure 1 shows the Annual Grassland and Oak Savanna vegetation areas considered as suitable forage areas that are to be monitored for RDM levels. Site number SE1 is located in a small, less than 1 acre, grassland site within an Oak woodland vegetation type.



November 14, 2016

**Figure 1: Suitable Forage Areas  
Upper Penitencia Property**

## **RDM Zone Class mapping**

Annually an RDM Zone (use-pattern map) is developed to show RDM levels that occur within a subunit at the time a survey is made. The annual RDM Zone map developed for this property is included as Figure two (2) in part three of this RDM monitoring report.

Mapping of RDM zones is conducted by visually examining an adequate amount of the pasture to determine and map the location and RDM classes described on page 4 that occur within the subunit.

All subunits have a variety of soils, aspects, vegetation and non-uniform livestock use that requires interpretation when developing an RDM Zone map. A combination of reference photographs, descriptive narrative, and clipping and weighing RDM within representative areas is utilized to determine the RDM class for a particular portion of a management unit. Mapping units are generally no smaller than 10 acres. The RDM zones are delineated and recorded before leaving a given subunit. Boundaries between RDM zones are placed on the map where one class "mostly" shifts to another class. Boundaries are often directly influenced by topographic breaks in slope and changes in aspect.

Figure 2 in part three of the report shows the RDM levels estimated to occur within each part of the suitable forage areas.

## **Management Unit Status map**

Each grazing subunit is assigned one of 6 management unit status summary ratings depending on how well it meets the established objective. Management units are considered to be within an identified status class if the unit is at or above the RDM class level on 80% of the area within the management unit. Grazing subunits that are below the RDM goal on more than 20% or 50% of the unit are noted and shown as such.

Figure 3 in part three of the report shows how well each Grazing Subunit met the RDM objectives for the Grazing Subunit.

## **Part 3-RDM Monitoring results October, 2017**

### **General**

Grass production was High in 2017 after being near normal production in 2015 and 2016. Livestock were present when the property was surveyed in October of 2017, however use was light in all areas.

### **Compliance 2017**

The 2017 RDM survey determined that minimum RDM standards were met in all areas as livestock use was light or only incidental when surveyed in 2017.

### **RDM Zone Mapping**

The RDM Zone map, Figure 2, for 2017 shows how well various portions of the SCVWD – Upper Penitencia Property met the established RDM objectives for each portion of the property.

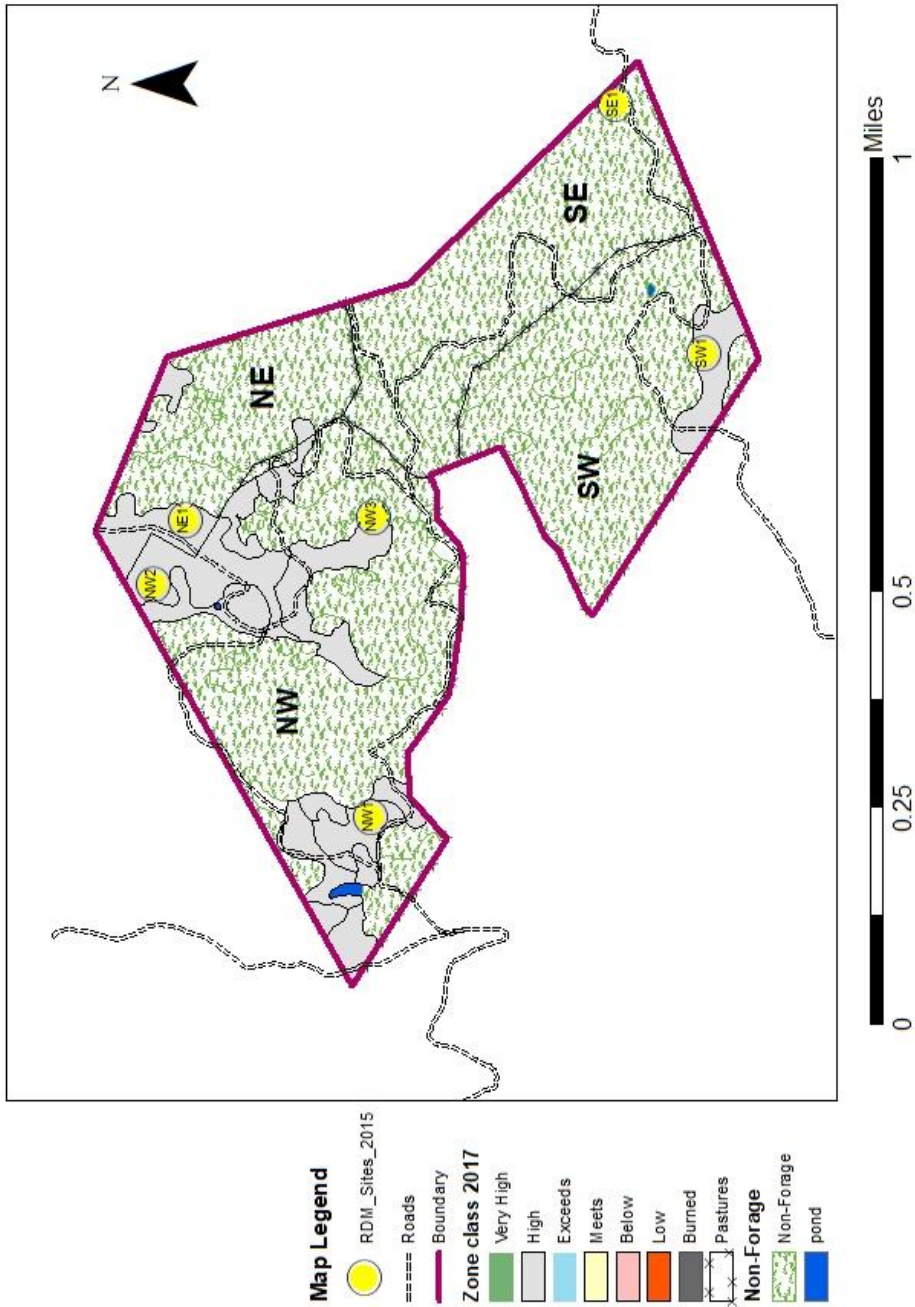
**RDM Zone map for 2017** showed that RDM levels for the SCVWD Penitencia Property were:

**High RDM** levels were recorded for 100% of the surveyed forage areas.

**Exceeds RDM** levels were recorded for 0% of the surveyed forage areas.

**Meets RDM** levels were not of significant size to be mapped in 2017, including the small area in the South-East MU where monitoring site SE-1 is located.

**Below RDM** objectives were not recorded in 2017.



December 1, 2017

**Figure 2: RDM Zones 2017  
Upper Penitencia Property**

Figure two displays the estimated 2017 Residual Dry Matter (RDM) Class of a forage zone in relation to the established objective for the site. RDM class descriptions for the Upper Penitencia Property are provided on page 4.

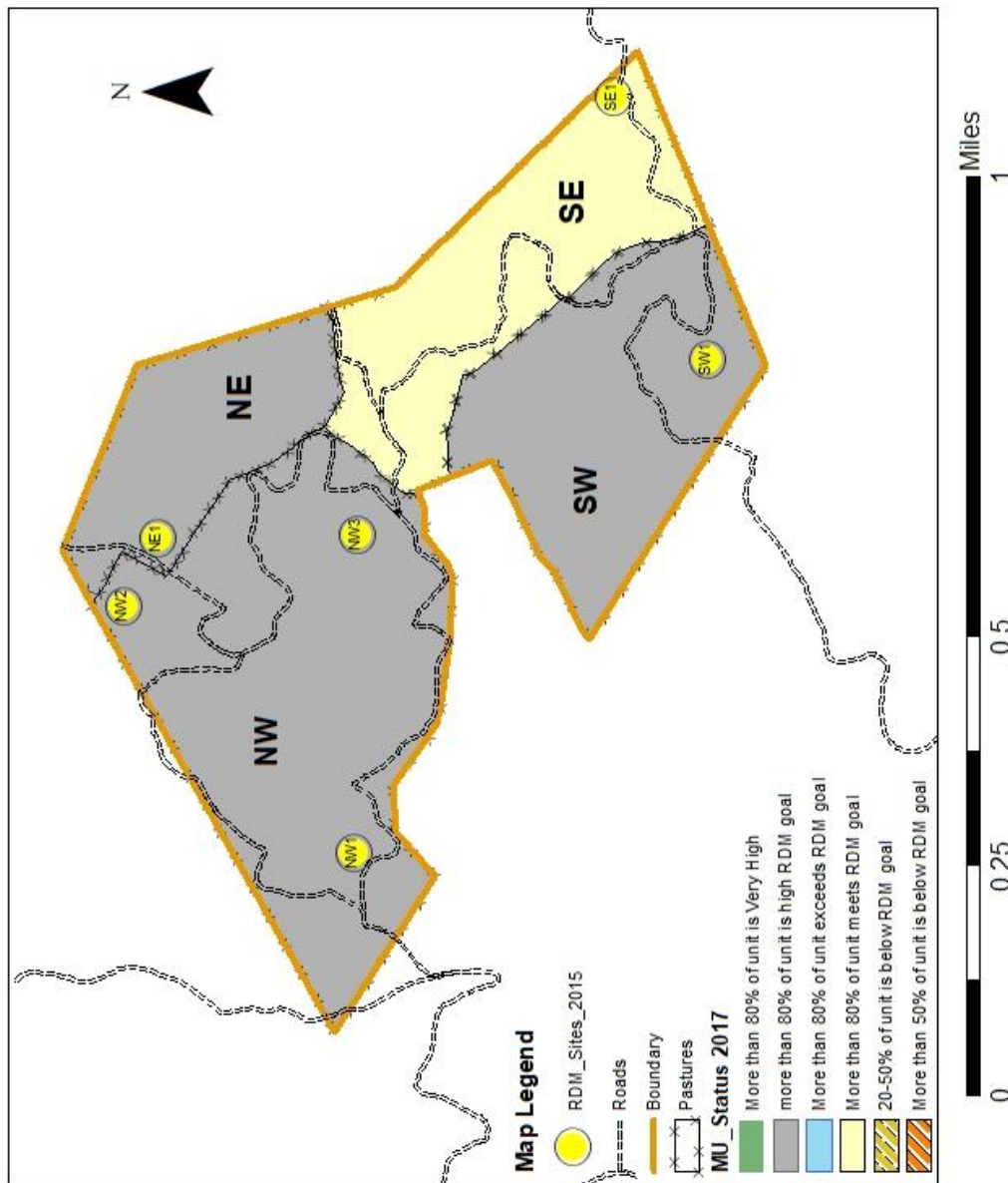
## Management Unit Status

The Management Unit Status map summarizes on a management unit basis the RDM levels of the forage areas within each management unit.

Figure 3 for 2017 shows that:

There were 3 Grazing subunits with more than 80% of the subunit estimated to have **High RDM** levels, subunits NE, NW and SW. These three subunits received only incidental livestock use in 2017.

The SE subunit is predominately oak woodland, had only incidental livestock use, and was found to have more than 80% of the subunit estimated to **Meet RDM** levels due to the inherent low productivity of the few forage areas.



**Figure 3: MU Status 2017  
Upper Penitencia Property**

December 2, 2017

Figure three summarizes on a management unit basis the 2017 RDM levels of the forage areas within the unit.

## References

- Guenther, K. and G. Hayes. 2008. *Monitoring Annual Grassland Residual Matter*  
Wildland Solutions 34 pp.
- Santa Clara Valley Water District . 2014. “*Upper Penitencia Creek Property Long-term  
Management Plan.*”



# Appendix A - RDM Reference site summary 2017

RDM Site	Grazing Subunit	Slope %	Aspect	RDM Goal	RDM class 2015	RDM class 2016	RDM class 2017	Utm 83 East	Utm 83 north
NE-1	Northeast	32	Southeast	1000-1500	High	High	High	610583	4140546
NW-1	Northwest	42	Southwest	1000-1500	High	High	High	610043	4140193
NW-2	Northwest	48	South	1000-1500	Meets	Meets	High	610523	4140599
NW-3	Northwest	45	South	1000-1500	Exceeds	Exceeds	High	610609	4140200
SW-1	Southwest	46	West	1000-1500	High	High	High	610937	4139567
SE-1	Southeast	28	North	1000-1500	Exceeds	Exceeds	Meets	611386	4139734

## Appendix B: Grazing Subunit Status 2017

Grazing Sub-unit	Acres Total	Acres Suitable Forage	RDM objectives lbs/acre	Status of each Grazing subunit (October)				
				2015	2016	2017		
Northwest	92	51.5	1,000-1,500	Meets	High	High		
Southwest	52	4.5	1,000-1,500	High	High	High		
Southeast	47	00	1,000-1,500	Exceeds	Exceeds	High		
Northeast	31	5.8	1,000-1,500	High	High	Meets		
total	222	61.8						

## **Appendix C - Reference Site datasheets**

datasheets

- **Project:** Santa Clara Valley Water District
- **Ranch:** Upper Penitencia Property
- **Pasture name:** Northwest

- **UTM Coordinates: UTM base 83**  
**East:** 610043      **North:** 4140193
- **General location:**

- **Herbage composition:**
  - **Perennial Grass:** ..... 00 %
  - **Annual Grass:** ..... 85 %
  - **Forbs:** ..... 15 %
  - **Tree leaves:** ..... 0 %
  - **Weeds:** ..... 0 %

**Comments:**

Clipped 2800 lbs/acre RDM

RDM varies 2000-3500 lbs/acre



Photo direction: 360



**Slope:** 42 %      **Aspect:** SW  
**Residual Dry Matter Objective:** 1000-1500  
**RDM Class When Surveyed:** High

**Surveyor:** Keith Guenther, Wildland Solutions

**Date** 10/14/2017

**Monitoring Site #**NW1



Photo direction: North



Photo direction: East

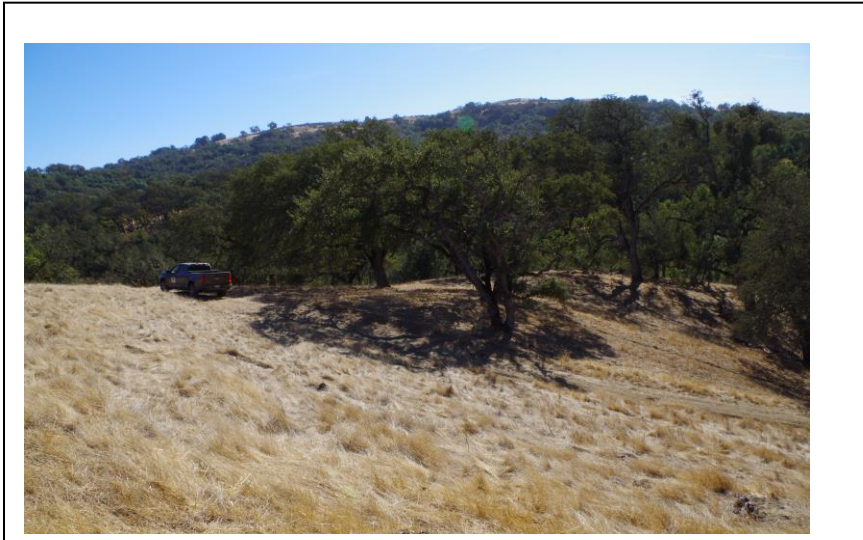


Photo direction: South



Photo direction: West

**Residual Dry Matter Objective:** 1000-1500

**RDM Class When Surveyed:** High

**Surveyor:** *Keith Guenther, Wildland Solutions*

**Date** 10/14/2017

**Monitoring Site #****NW1**

- **Project:** Santa Clara Valley Water District
- **Ranch:** Upper Penitencia Property
- **Pasture name:** Northwest
  
- **UTM Coordinates: UTM base 83**  
**East:** 610523      **North:** 4140599
- **General location:**

- **Herbage composition:**
  - **Perennial Grass:** ..... %
  - **Annual Grass:** ..... 50 %
  - **Forbs:** ..... 50 %
  - **Tree leaves:** ..... 00 %
  - **Weeds:** ..... 00 %

**Comments:**

RDM varies 2200-3,200 lbs/acre

RDM clipped 2,900



Photo direction: 360



**Slope:** 48 %

**Aspect:** South

**Residual Dry Matter Objective:** 1000-1500

**RDM Class When Surveyed:** High

**Surveyor:** Keith Guenther, Wildland Solutions

**Date** 10/14/2017

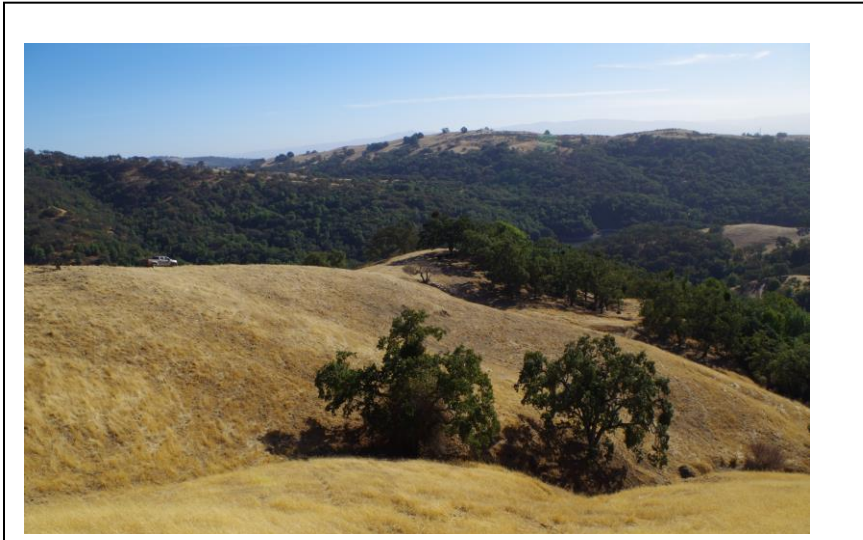
**Monitoring Site #NW2**



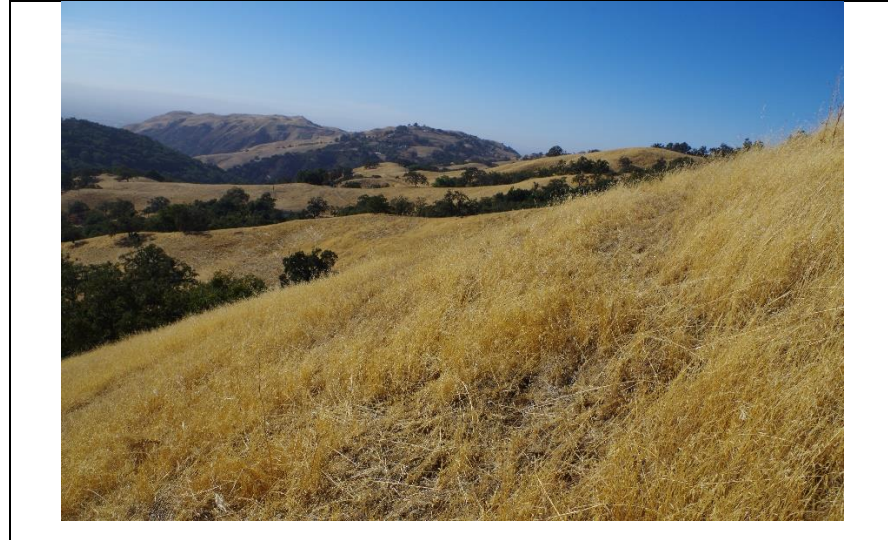
**Photo direction: North**



**Photo direction: East**



**Photo direction: South**



**Photo direction: West**

**Residual Dry Matter Objective:** 1000-1500

**RDM Class When Surveyed:** high

**Surveyor:** *Keith Guenther, Wildland Solutions*

**Date** 10/14/2017

**Monitoring Site #****NW2**



- **Project:** Santa Clara Valley Water District
- **Ranch:** Upper Penitencia Property
- **Pasture name:** Northwest
  
- **UTM Coordinates: UTM base 83**  
**East:** 610609     **North:** 4140200
- **General location:**
  
- **Herbage composition:**
  - **Perennial Grass:** ..... 00 %
  - **Annual Grass:** ..... 70 %
  - **Forbs:** ..... 30 %
  - **Tree leaves:** ..... %
  - **Weeds:** ..... 00 %

**Comments:**

RDM at site 2200 lbs/acre

Most of grassland area in the vicinity is 2,000-2500 lbs/acre

Average for area is 2,300 lbs/acre



Photo direction: 360



**Slope:** 35 %                      **Aspect:** North  
**Residual Dry Matter Objective:** 1000-1500  
**RDM Class When Surveyed:** High

**Surveyor:** *Keith Guenther, Wildland Solutions*

**Date** 10/14/2017

**Monitoring Site #NW3**



**Photo direction: North**



**Photo direction: East**



**Photo direction: South**



**Photo direction: West**

**Residual Dry Matter Objective:** 1000-1500

**RDM Class When Surveyed:** High

**Surveyor:** *Keith Guenther, Wildland Solutions*

**Date** 10/14/2017

**Monitoring Site #****NW3**

- **Project:** Coyote Ridge Preserve
- **Ranch:** Upper Penitencia Property
- **Pasture name:** Southwest
  
- **UTM Coordinates: UTM base 83**  
**East:** 610937     **North:** 4139567
- **General location:**

- **Herbage composition:**
  - **Perennial Grass:** ..... 00 %
  - **Annual Grass:** ..... 65 %
  - **Forbs:** ..... 35 %
  - **Tree leaves:** ..... 00 %
  - **Weeds:** ..... 0 %

**Comments:**

Clipped 2,800 lbs/acre RDM



Photo direction: 360



**Slope:** 46 %                      **Aspect:** West  
**Residual Dry Matter Objective:** 1000-1500  
**RDM Class When Surveyed:** High

**Surveyor:** *Keith Guenther, Wildland Solutions*

**Date** 10/14/2017

**Monitoring Site #**SW1



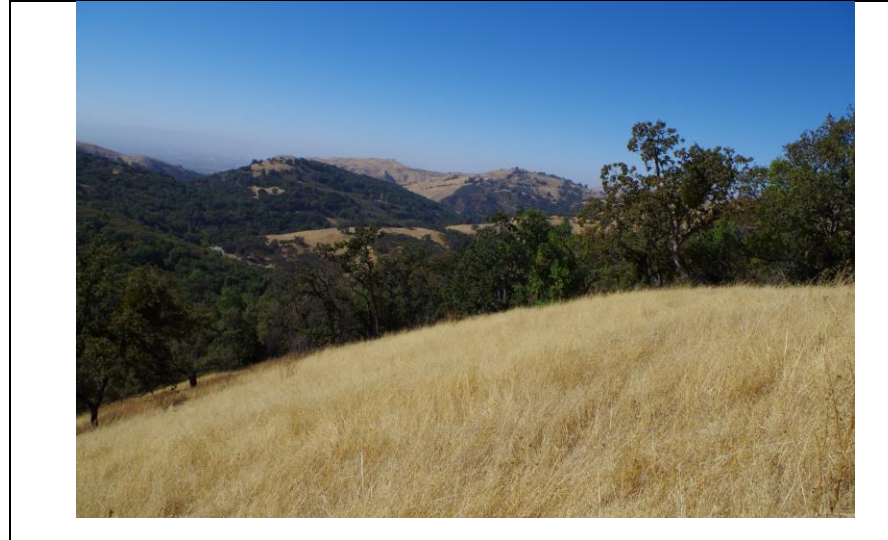
**Photo direction: North**



**Photo direction: East**



**Photo direction: South**



**Photo direction: West**

**Residual Dry Matter Objective:** 1000-1500

**RDM Class When Surveyed:** High

**Surveyor:** *Keith Guenther, Wildland Solutions*

**Date** 10/14/2017

**Monitoring Site #**SW1

- **Project:** Santa Clara Valley Water District
- **Ranch:** Upper Penitencia Property
- **Pasture name:** Southeast
  
- **UTM Coordinates: UTM base 83**  
**East:** 611386      **North:** 4139734
- **General location:** below road
  
- **Herbage composition:**
  - **Perennial Grass:** ..... %
  - **Annual Grass:** ..... 60 %
  - **Forbs:** ..... 35 %
  - **Tree leaves:** ..... %
  - **Weeds:** ..... 5 %

**Comments:**

Site is moderate productivity within a small opening in an area mapped as Oak Woodland.

Clipped 1,200 lbs/acre at plot site.

Most of area is variable 1,000-2,000 lbs/acre RDM

No apparent livestock use. Rooting by pigs in vicinity. Also pocket gopher activity.



Photo direction: 360



**Slope:** 28 %      **Aspect:** North  
**Residual Dry Matter Objective:** 1000-1500  
**RDM Class When Surveyed:** Meets

**Surveyor:** Keith Guenther, Wildland Solutions

**Date** 10/14/2017

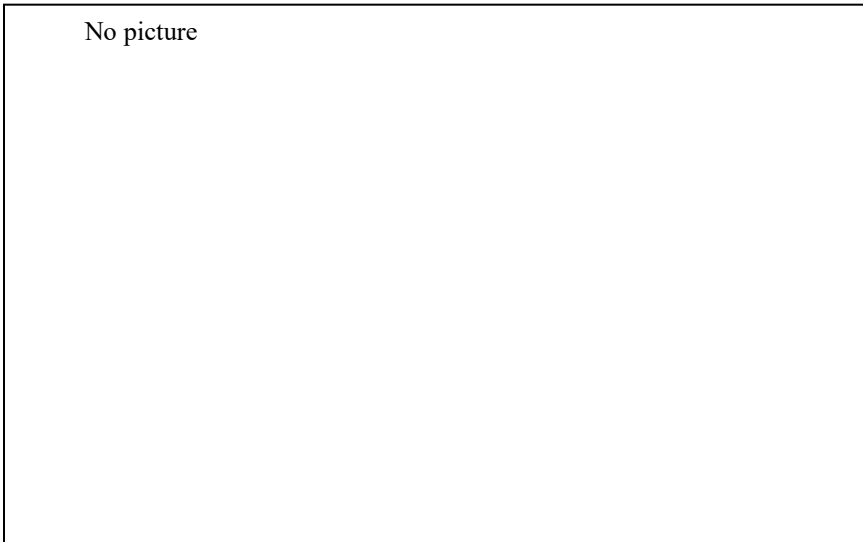
**Monitoring Site #SE1**



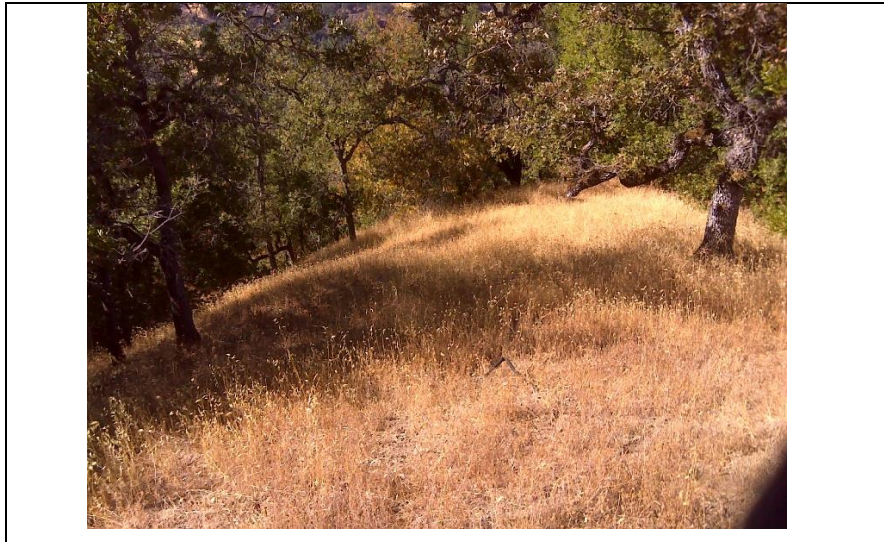
**Photo direction: North**



**Photo direction: East**



**Photo direction: South**



**Photo direction: West**

**Residual Dry Matter Objective:** 1000-1500

**RDM Class When Surveyed:** Meets

**Surveyor:** *Keith Guenther, Wildland Solutions*

**Date** 10/14/2017

**Monitoring Site #**SE1

- **Project:** Santa Clara Valley Water District
- **Ranch:** Upper Penitencia Property
- **Pasture name:** Northeast
  
- **UTM Coordinates: UTM base 83**  
**East:** 610583     **North:** 4140546
- **General location:**

- **Herbage composition:**
  - **Perennial Grass:** ..... 00 %
  - **Annual Grass:** ..... 75 %
  - **Forbs:** ..... 25 %
  - **Tree leaves:** ..... %
  - **Weeds:** ..... 00 %

**Comments:**

RDM varies 3,000-4,000 lbs/acre

Average RDM 3,500 lbs/acre



Photo direction: 360

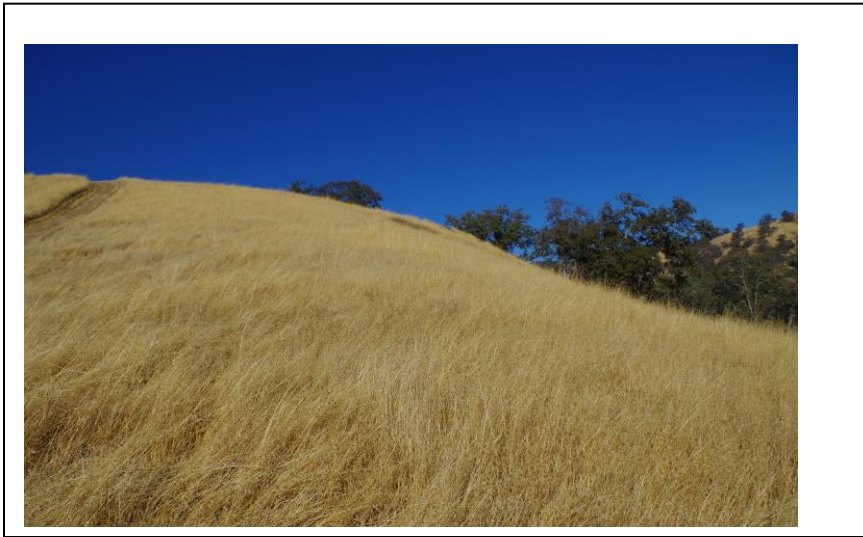


**Slope:** 32 %                      **Aspect:** Southeast  
**Residual Dry Matter Objective:** 1000-1500  
**RDM Class When Surveyed:** High

**Surveyor:** *Keith Guenther, Wildland Solutions*

**Date** 10/14/2017

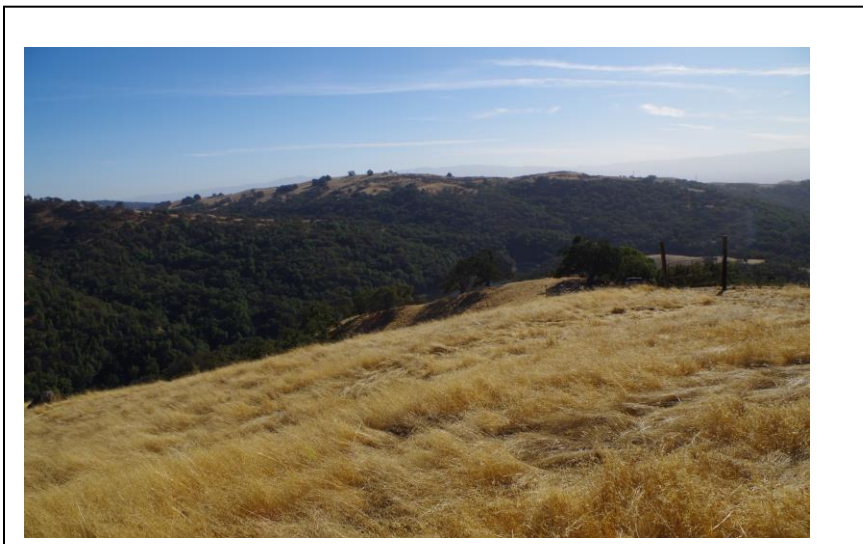
**Monitoring Site #NE1**



**Photo direction: North**



**Photo direction: East**



**Photo direction: South**



**Photo direction: West**

**Residual Dry Matter Objective:** 1000-1500

**RDM Class When Surveyed:** High

**Surveyor:** *Keith Guenther, Wildland Solutions*

**Date** 10/14/2017

**Monitoring Site #**NE1



# APPENDIX D

***Santa Clara Valley Water District***  
**Upper Penitencia Creek Property Conservation Easement for**  
**Stream and Watershed Protection Program**  
**Monitoring Report**

**Inspection Date:** June 30, 2017

**Property Name and Easement** Upper Penitencia Creek Property, 2014 Easement pertaining to S&WPP

**History**

The Santa Clara Valley Water District (SCVWD) funded the Santa Clara County Open Space Authority's (OSA) December 2012 acquisition of three parcels located toward the upstream end of the Upper Penitencia Creek watershed surrounding the upper end of Cherry Flat Reservoir. The approximately 222-acre area is referred to as the Upper Penitencia Creek Property (Property).

The Property was acquired for the purpose of providing mitigation in perpetuity for impacts associated with the SCVWD's 2002 Multi-Year Stream Maintenance Program (SMP) under the Stream and Watershed Protection Program (S&WPP). The Property may also provide mitigation for additional SCVWD projects in the future.

As part of a collaborative agreement between the SCVWD and Santa Clara County Open Space Authority (OSA), ownership of the Property will be retained by SCVWD. Each mitigation area will then be protected by a conservation easement. The first conservation easement (to be held by OSA) is expected to be completed in 2014, pertains to the mitigation areas for the 2002 SMP under the S&WPP and is the subject of this report.

The conservation easement area includes 201 acres (see easement area figure, Attachment 2), and includes 191.4 acres of Stream and Watershed Protection buffers (which equates to 15.6 acres of freshwater wetland mitigation credit for S&WPP).

The OSA and SCVWD assume designated responsibilities for Property management, monitoring, and reporting subject to the terms of an agreement between the respective agencies. The OSA is responsible for annual monitoring for compliance with the terms of this conservation easement.

This report constitutes compliance with Covenants, Terms, Conditions and Restrictions (CTC&R) Section 4 (Grantee's Duties) of the easement, which states:

- (a) To ensure that the purposes of this Conservation Easement as described in Section 1 are being accomplished, Grantee and its successors and assigns shall:
  - (1) Perform, at a minimum on an annual basis, compliance monitoring inspections of the Easement Property as described in the Management Plan, including Appendix H, to identify any prohibited uses as set forth in section 3; and
  - (2) Prepare reports on the results of the compliance monitoring inspections, and provide these reports to the Permitting Agencies on an annual basis.

**Assessors Parcel Numbers**

APN's 627-22-013, 627-22-012 and 627-22-010

**Owner Name, Phone Number and Mailing Address**

Santa Clara Valley Water District  
5750 Almaden Expressway  
San Jose, CA 95118  
P: (408) 265-2600

**Contact Person, Phone Number and Mailing Address**

Lisa Porcella, Environmental Services Manager  
Environmental Mitigation and Monitoring Unit  
5750 Almaden Expressway  
San Jose, CA 95118  
P: (408) 630-2741

**Easement Monitoring Attendees and Affiliations:**

SCVWD: Laura Garrison, Biologist

OSA: Linda Kwong, Planning Technician; Alexis Shields, Administrative Assistant; Andy Burnside, Open Space Technician

**Date of Last Monitoring:** May 10, 2016

**RESULTS**

A checklist noting the Prohibited Uses and Grantor's Duties and their status is attached. The results are summarized below.

**CTC&R Section 3. Prohibited Uses**

*Describe any observed activities or evidence of uses identified as prohibited uses in the Easement. Please note if any violations were observed or if not indicate "no violations".*

No prohibited uses were observed during the monitoring visit. No violations were found.

**CTC&R Section 5. Grantor's Duties**

*Describe any observed activities or evidence of activities that indicate compliance or lack of compliance with Grantor's Duties. Please note if any violations were observed or if not indicate "no violations".*

No activities were found that indicate lack of compliance. No violations were found.

**Additional notes and comments:**

Prepared by: Linda Kwong, Planning Technician (OSA)

Date: 08/03/17

Attachments: Checklist, Easement Map and Site Photographs

Easement Item	Status
<b>3. Prohibited Uses</b>	
General: Any activity on or use that is inconsistent with purposes of this CE. Public use shall be limited to hikers, campers, equestrians and bicyclists.	None observed
a. Unseasonable watering; use of fertilizers, pesticides, biocides, herbicides or other agricultural chemicals; weed abatement activities; incompatible fire protection activities; and any and all other activities and uses which may impair or interfere with the purposes of this Conservation Easement except for non-native invasive plant species management as specifically provided in the Management Plan.	None observed
b. Use of off-road vehicles and use of any other motorized vehicles except on existing roads and except for site management activities such as invasive plant species management and infrastructure and facilities management as specifically provided in the Management Plan.	None observed
c. Agricultural activity of any kind except grazing for vegetation management as specifically provided in the Management Plan.	None observed
d. Recreational activities, including, but not limited to, fishing are prohibited. Hiking, biking, horseback riding, and camping are permitted for public, non-commercial, recreational activities of the Grantee and its invitees, so long as such activities are consistent with the purposes of this Conservation Easement and specifically provided for in the Management Plan. Hiking shall be limited to the existing roads (including portions of an existing abandoned road) and to proposed new small sections of foot trails. Biking and equestrian use shall be limited to the existing roads.	None observed
e. Commercial, industrial, residential, or institutional uses.	None observed
f. Any legal or de facto division, subdivision or partitioning of the Easement Property	None observed

**Upper Penitencia Creek Property Riparian Conservation Easement Monitoring Checklist**

Date: June 30, 2017

Easement Item	Status
<p>g. Construction, reconstruction, erection or placement of any building, billboard or sign, or any other structure or improvement of any kind except for infrastructure and facilities installation and repair and signage (e.g., road, trail, culvert, cattle trough, fences installation and repair; trespassing and open space interpretive signs, etc.) and habitat enhancement and management activities as specifically provided herein or in the Management Plan.</p>	<p>None observed</p>
<p>h. Depositing or accumulation of soil, trash, ashes, refuse, waste, bio-solids or any other materials except where construction materials may be temporarily stored in support of Easement Property management and maintenance activities as specifically provided in the Management Plan.</p>	<p>None observed</p>
<p>i. Planting, introduction or dispersal of non-native or exotic plant or animal species except as approved by the California Department of Food and Agriculture’s Biological Control Program for control of invasive species as specifically provided in the Management Plan and with the approval of the Permitting Agencies.</p>	<p>None observed</p>
<p>j. Filling, dumping, excavating, draining, dredging, mining, drilling, removing or exploring for or extracting minerals, loam, soil, sand, gravel, rock or other material on or below the surface of the Easement Property, or granting or authorizing surface entry for any of these purposes, except for infrastructure and facilities and trails management and habitat enhancement of the Easement Property as specifically provided in the Management Plan.</p>	<p>None observed</p>
<p>k. Altering the surface or general topography of the Easement Property, including but not limited to any alterations to habitat, building roads or trails, paving or otherwise covering the Easement Property with concrete, asphalt or any other impervious material except for those infrastructure and facilities and habitat enhancement and management activities specified in the Management Plan.</p>	<p>None observed</p>
<p>l. Removing, destroying, or cutting of trees, shrubs or other vegetation, except as required by law, for (i) fire breaks, (ii) maintenance of existing foot trails or roads, or (iii) prevention or treatment of disease; and except for maintenance or installation of grazing infrastructure, existing roads, or the proposed new foot trails and bridge as specifically provided in the Management Plan.</p>	<p>None observed</p>

Easement Item	Status
<p>m. Manipulating, impounding or altering any natural water course, body of water or water circulation on the Easement Property, and any activities or uses detrimental to water quality, including but not limited to degradation or pollution of any surface or sub-surface waters. To the extent any of these activities are required for grazing infrastructure maintenance and management, future creation of habitat, or habitat enhancement of the Easement Property for sensitive, threatened, or endangered species as specifically provided in the Management Plan the Grantor will obtain proper authorizations.</p>	<p>None observed</p>
<p>n. Without the prior written consent of Grantee, which Grantee may withhold, transferring, encumbering, selling, leasing, or otherwise separating the mineral, air or water rights for the Easement Property; changing the place or purpose of use of the water rights; abandoning or allowing the abandonment of, by action or inaction, any water or water rights, ditch or ditch rights, spring rights, reservoir or storage rights, wells, ground water rights, or other rights in and to the use of water historically used on or otherwise appurtenant to the Easement Property, including but not limited to: (i) riparian water rights; (ii) appropriative water rights; (iii) rights to waters which are secured under contract with any irrigation or water district, to the extent such waters are customarily applied to the Easement Property; and (iv) any water from wells that are in existence or may be constructed in the future on the Easement Property. Grantee shall not grant consent where the authorized actions would degrade or harm the Conservation Values of the Property.</p>	<p>None observed</p>
<p>o. Engaging in any use or activity that may violate, or may fail to comply with, relevant federal, state, or local laws, regulations, or policies applicable to Grantor, the Easement Property, or the use or activity in question.</p>	<p>None observed</p>
<p><b>5. Grantor's Duties</b></p>	
<p>Grantor shall undertake all reasonable actions to prevent the unlawful entry and trespass by persons whose activities may degrade or harm the Conservation Values of the Easement Property or that are otherwise inconsistent with this Conservation Easement and the Management Plan. In addition, Grantor shall undertake all necessary actions to perfect and defend Grantee's rights under Section 2 of this Conservation Easement, and to observe and carry out the obligations of Grantor under the Management Plan.</p>	<p>No change</p>

**Inspection Date:** June 30, 2017  
**OSA Staff Present:** Linda Kwong, Andy Burnside, Alexis Shields  
**Others Present:** Laura Garrison, SCVWD

**Method of Monitoring:**

Drove through north gate of the property and drove the loop road on the north side. Then, drove through red gate (south) and drove out and back on the dirt road.

**Landowner Report:**

Yes  
Updated contact information.

**Description of the property's primary use and general condition:**

Open space and mitigation.

**Are there any new man-made alterations to the property (e.g. structures, roads, plantings, cut trees, etc.)?  
If so, please describe.**

No

**Are there any new natural alterations to the property (e.g. fire, flood, erosion, landslides, etc.)?  
If so, please describe.**

No

**Additional easement monitoring notes/comments?**

None

**Did you observe any potential violations of the terms of the conservation easement during the site visit? If so, please describe and include supporting documentation. (Fill this in after evaluating information from site visit).**

No

I certify that all information contained in this report is true and accurate to the best of my knowledge.


Report prepared by:

  
\_\_\_\_\_  
Signature:

Linda Kwong, Planning Technician

Date:

10/4/17

  
\_\_\_\_\_  
Signature:

Alexis Shields Administrative Assistant

Date:

10/4/17



Path: G:\Projects\OpenSpacePreserve\Jurisdiction\Wilde\Conservation\EasementMonitoring\2017\EasementMonitoring2017.aprx

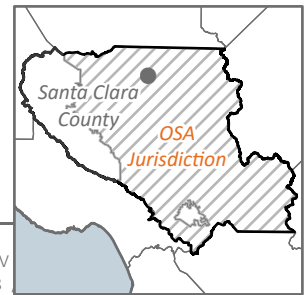
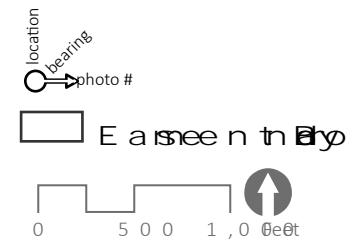


Photo #:	Location	Description	Needs Further Review?
1	Lat: 37.40163 Lon: -121.756 Bearing: 150	SE view in ravine	No
2	Lat: 37.40093 Lon: -121.754 Bearing: 210	SW view of hillside	No
3	Lat: 37.40082 Lon: -121.752 Bearing: 150	SE view of road	No
4	Lat: 37.40276 Lon: -121.749 Bearing: 210	View of hillside and reservoir	No
5	Lat: 37.40486 Lon: -121.751 Bearing: 270	West view	No
6	Lat: 37.40484 Lon: -121.751 Bearing: 180	SE view	No
7	Lat: 37.40484 Lon: -121.751 Bearing: 223	View from ridge	No
8	Lat: 37.40484 Lon: -121.751 Bearing: 90	eastern view	No
9	Lat: 37.40335 Lon: -121.756 Bearing: 120	SE View	No
10	Lat: 37.4034 Lon: -121.757 Bearing: 15	North view of easement	No
11	Lat: 37.39626 Lon: -121.746 Bearing: 180	View	No
12	Lat: 37.39623 Lon: -121.745 Bearing: 210	SW view	No
	Lat: Lon: Bearing:		
	Lat: Lon: Bearing:		
	Lat: Lon: Bearing:		

Upper Penitencia Easement Monitoring Photos 2017



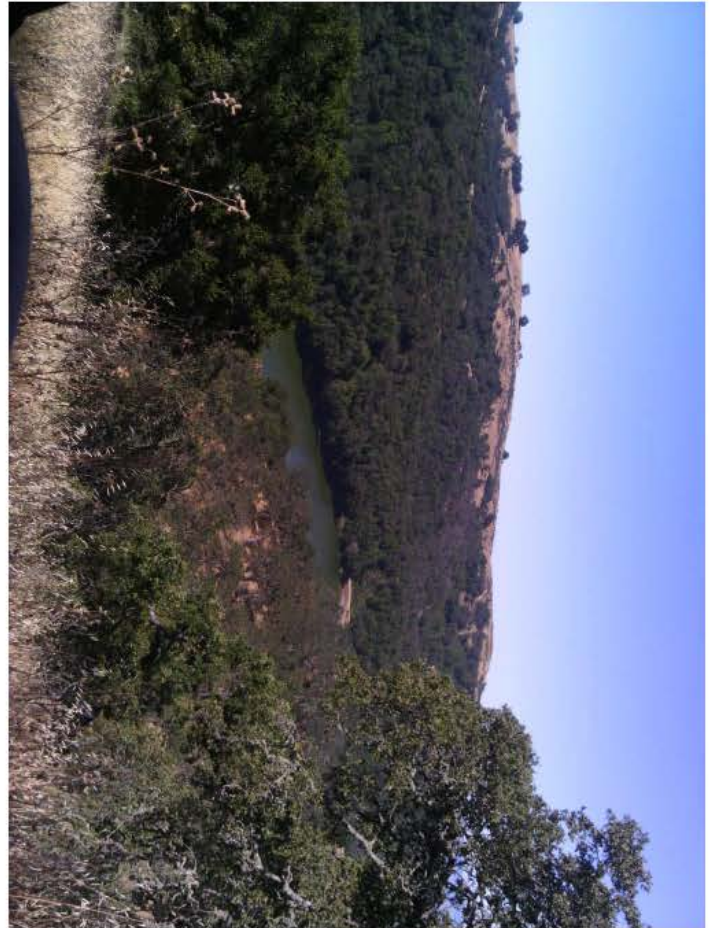
UpperPenitencia\_170630\_1.jpg



UpperPenitencia\_170630\_2.jpg



UpperPenitencia\_170630\_3.jpg



UpperPenitencia\_170630\_4.jpg

*Upper Penitencia Easement Monitoring Photos 2017*



UpperPenitencia\_170630\_5.jpg



UpperPenitencia\_170630\_6.jpg



UpperPenitencia\_170630\_7.jpg



UpperPenitencia\_170630\_8.jpg

*Upper Penitencia Easement Monitoring Photos 2017*



UpperPenitencia\_170630\_9.jpg



UpperPenitencia\_170630\_10.jpg



UpperPenitencia\_170630\_11.jpg



UpperPenitencia\_170630\_12.jpg