

**San Diego Association of Governments
Otay Water District San Miguel Habitat Management
Area Perimeter Fencing Restoration and Threat
Reduction Project
Otay Water District
Quarterly Progress Report
Reporting Period: July 1, 2023 – September 30, 2023
Submission Date: October 23, 2023
SANDAG Contract Number: S1125497**

Quarterly Status Report Overview

PLEASE DO NOT CHANGE OR ALTER THE FORMATTING OF THIS DOCUMENT!

SANDAG has developed a standardized grant monitoring and tracking program for the Environmental Mitigation Program (EMP) Land Management Grant Program. The purpose is to collect information on individual projects and the grant program as a whole for reporting to the Regional Habitat Conservation Taskforce, SANDAG Policy Advisory Committees, and the SANDAG Board of Directors. SANDAG monitors grantees through invoices, progress reports, performance measures, and designated photograph points. These standardized reporting templates and instructions for submittal are included below.

Work Performed this Period:

1. Task 1 - Public Outreach & Education Campaign

Task 1 was initiated on May 2, 2023 and is ongoing. Approximately 27% of the task is complete.

Activity A. Agency Coordination. The District met with the Preserve Manager of the adjacent U.S. Fish and Wildlife Service (USFWS), San Diego National Wildlife Refuge (SDNWR) on September 8, 2023 to continue discussion regarding trail users illegally entering District property from the USFWS SDNWR land. The USFWS confirmed that the District has permission to place signage that the HMA is closed to trail users on the SDNWR trail leading to the HMA; however, USFWS would like to know where the signage would be placed prior to installation and staff would like to review the proposed sign to ensure that it is consistent with USFWS requirements. The exact sign location will be dependent on the results from the camera monitoring. M&A and the District expect to finalize the proposed location as well as the offsite sign layout in the 3rd quarter; the sign will be provided to the offsite landowners (either USFWS or San Diego Gas & Electric) as well as SANDAG for review prior to installation.

Activity B. Trail App Coordination. M&A researched the AllTrails app. (i.e., app which displays trails through District Property) and the OpenStreetMap data collection process and determined that the trails through the District property cannot be removed from the AllTrails app, but they can be reclassified as "Private". M&A submitted a request to OpenStreetMap that they reclassify all trails on District property as "Private". M&A confirmed on May 25, 2023 that all but one trail (small segment in the north of the District's Property, at Illegal Entry Point North 2b) has been reclassified as "Private". M&A submitted a follow-up request on September 1, 2023 to reclassify the remaining trail as "Private"; to date, the change has not been implemented on the AllTrails app. M&A also confirmed the trails are not displayed on the app, TrailForks, which is promoted by the San Diego Mountain Biking Association (SDMBA); however, one trail, the "Rolling Hills Ranch North" appears to be passing through District property. The District and M&A will follow-up on this item in the 3rd quarter.

Activity C. Flyer Reproduction and Community Outreach. The District and M&A previously determined that community outreach opportunities include: 1) participation at local HOA meeting(s), 2) participation in District community event(s), and/or 3) participation in SDMBA (or similar) meeting. The District plans on participating in community events in Spring 2024. The SDMBA has monthly Board Meetings, open to the public on the 3rd Wednesday of every month. The District plans to coordinate with SDMBA staff to present at a Board Meeting in the 3rd quarter.

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The District and M&A submitted the community outreach flyer to SANDAG for review on September 29, 2023. The flyers were approved on October 6, 2023 and will be printed in the 3rd quarter. The flyer will be provided to the local community at three community events. In addition, the District created a designated San Miguel Habitat Management Area (HMA) page on the District's website this quarter. The page is ready, just pending approval from SANDAG. It is expected to go live in the 3rd quarter. The HMA will also have a blurb in the District customer newsletter. This is a quarterly newsletter that goes out to all OWD customers either as a physical copy or digital format.

Activity E. Retired Volunteer Service Patrol. No activity this quarter.

2. Task 2 - HMA Illegal Entry Deterrence Efforts

Task 1 was initiated on May 2, 2023 and is ongoing. Approximately 33% of the task is complete.

M&A completed the baseline monitoring this quarter. The cameras were deployed on June 15 and retrieved on August 11, 2023 (in place for 58 days). The results are provided in Task 4, below.

The District solicited bids from gate companies for installation of two gates and four locks this quarter. Five bids were received. The District awarded the contract to All Around Fence. The requisition request was submitted to the OWD Purchasing Department on September 28, 2023 and the purchase order was issued on October 16, 2023. All Around Fence met all the requirements for the contract - CSLB C-13 Fencing Contractor, DIR number, prevailing wages, auto and liability insurance requirements. The contract amount meets the estimated budget amount. The District is expected to complete the contracting phase in the 3rd quarter. All deterrence efforts (e.g., gates, locks, cacti, monitoring cameras, signage, etc.) are expected to be installed in the 3rd quarter.

3. Task 3 - Enhanced Site Signage

Task 1 was initiated on May 2, 2023 and is ongoing. Approximately 50% of the task is complete.

The District and M&A submitted the layout for the enhanced site signage to SANDAG for review on September 29, 2023. The signs were approved on October 6, 2023. Production and installation of the signage is expected to occur in the 3rd quarter. The District and M&A will ensure to take photos of the locations of where the signs will be placed.

4. Task 4 - Camera Trap Monitoring

Task 1 was initiated on May 2, 2023 and is ongoing. Approximately 40% of the task is complete.

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M&A completed the baseline monitoring this quarter. The cameras were deployed on June 15 at approximately 9:17 am and retrieved on August 11, 2023 at approximately 11:45 am (in place for 58 days). Below is a summary of the methods and results of the camera monitoring.

Methods: Five baseline cameras were installed at the locations depicted on Figure 1: West 1a and West 1b, North 2a and North 2b, and East 3b. The cameras were concealed, as best as possible within vegetation near each illegal entry point (cameras were either attached to T-posts or vegetation). Concurrent with this effort, M&A also repaired all breaks in perimeter fencing and reattached District signage as part of M&A's Agreement for Professional Services for the HMA (not a part of the SANDAG Grant). This included repairs at four of the five primary illegal entry points (i.e., West 1a and West 1b, North 2a and North 2b). The camera SIM cards were retrieved (to download photos) by M&A on June 27, July 3, July 10, July 20, July 31, and August 11. Before and after photos, specific to the camera installation were included in the 1st quarter report. Additional photos of illegal trespassers captured during the baseline monitoring event are included in this report; see the attached Photo Pages.

Biologists reviewed and cataloged all photos. Data collected from each camera consisted of:

- Trespasser (Yes or No);
- If Yes, Type of Trespasser [Biker (bicycle or motorized bike), Dog Walker, Equestrian, Hiker, Jogger and collapsed/categorized as Biker, Equestrian, or Pedestrian/On-foot];
- If Yes, Total Number of Trespassers; and
- If Yes, Photo Number, Date, Time, Day.

M&A also collected the following data from each camera:

- Mammal (Yes or No);
- If Yes, Type of Mammal (e.g., coyote, deer, etc.); or
- If Not a Trespasser then who (e.g., M&A or District staff).

In some cases, a group of trespassers were captured on camera during a blast of photos (e.g., three photos with the same time stamp or within one to two minutes of each other). In these situations, M&A quantified the total number of trespassers in the group versus each photograph. In addition, some trespassers were captured on camera and several minutes later (e.g., more than three to five minutes) captured on the same camera or another camera (e.g., if on the same camera, the trespasser was typically headed in the opposite direction). In these situations, M&A quantified the total number of trespassers captured on camera regardless of if they were entering or leaving the HMA. Some photographs were too blurry (e.g., object in image

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moving too fast or poor lighting, etc.) to positively identify the image in the photo; thus, information could not be obtained from such photos. In addition, the cameras were suspected of experiencing heat related issues causing the batteries to die faster than anticipated in late July and August.

Results: In summary, 472 trespassers were identified onsite over a period of 58 days, with trespassers observed on at least one camera every day except for three days in July and one day in August. Entry point North 2b had the greatest number of trespassers at 262, consisting of 203 Bikers, 52 Pedestrians, and 7 Equestrian. Entry point West 1b (SDG&E easement road) had the second greatest number of trespassers at 176, consisting of 122 Pedestrians, 48 Bikers, and 6 Equestrian. Entry point North 2a captured 34 trespassers, consisting of 31 Bikers and 3 Pedestrians. West 1a camera was stolen within 11 days of deployment and the camera was not replaced.

Trespassers were captured on camera 7 days a week, Sunday – Saturday; however, Sundays and Saturdays had the greatest number of trespassers with 104 trespassers each day, with the greatest amount of activity in the morning, generally between 6 AM – 10 AM, with some activity between 10 AM – 2 PM, but significantly less activity in the late afternoon and evening. During the week, trespassers were equally observed onsite Monday – Thursday, averaging 48 trespassers each day, with the greatest amount of activity generally between 6 AM – 10 AM, some activity between 11 AM – 5 PM, and activity significantly increasing between 6 PM – 8 PM. The fewest number of trespassers were observed on Fridays.

The baseline monitoring event occurred during the summer months when the number of hours of daylight is the greatest. When interpreting the data, the greatest amount of activity is on the weekends during the morning hours and secondarily during the week (Monday – Thursday) during the morning hours and the late afternoon before sunset (i.e., end of civil twilight).

Below is a summary of data from each camera:

- West 1a – This is an illegal entry point along an old road, just south of Rickey Pond. The offsite land is owned by SDG&E. A gate is located at this location along with barbed wire fencing along the perimeter of the HMA. Fencing was repaired and the camera was deployed on June 15 by 9:06 am. The camera was inspected on June 16 and no issues were noted. The camera was inspected again on June 26 and the camera was gone and all of the fencing along the perimeter of the HMA was cut. The camera was not replaced.
- West 1b – This is an illegal entry point along an active SDG&E easement road. The offsite land to the west is owned by USFWS; however, the SDG&E easement also extends west. An informal gate consisting of barbed wire on a

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T-post is at this location along with barbed wire fencing along the perimeter of the HMA. The informal gate was repaired, and the camera was deployed on June 15 by 9:21 am. Illegal trail users were first captured on camera on June 15 at 5:57pm (3 bicyclists). A total of 176 trespassers were detected consisting of 122 Pedestrians, 48 Bikers, and 6 Equestrian. Trespassers were detected every day of the week with the greatest amount of activity on Sundays and Saturdays between 6 AM – 10 AM and Tuesdays between 6 PM – 8 PM. Activity was detected the rest of the week, Monday – Thursday with the greatest amount of activity in the evening, between 5 PM – 8 PM.

- North 2a – This is an illegal entry point under a canopy of eucalyptus trees. Trespassers have created an illegal trail that bisects native habitat through the eastern portion of the HMA. North 2a serves as the northern entrance to the illegal trail; the other entrance is located on the eastern side of the HMA near the USFWS San Miguel Mountain Trailhead. The surrounding lands are owned by the USFWS. Fencing was repaired and the camera was deployed on June 15 by 11:32 am. Illegal trail users first captured on camera on June 15 at 6:33 pm (4 bicyclists); the camera detected users cutting the fence. M&A conducted a site inspection on June 16 and confirmed that the perimeter fencing had been cut; the fencing at the eastern entrance (not a part of this study) was also cut. A total of 34 trespassers were detected, consisting of 31 Bikers and 3 Pedestrians. Trespassers were detected every day of the week, except Mondays. The activity was the greatest on Wednesdays and Thursdays between 5 PM – 7 PM and secondarily Saturdays between 7 AM – 9 AM.
- North 2b – This is an illegal entry point at the northern limit of the District Use Lands, between the HMA and a main District unpaved road/gate. North of the District property, the land is owned by the USFWS. The fencing was repaired and the camera was deployed on June 15 by 10:52 am. Illegal trail user first captured on camera on June 15 at 7:03 pm (1 bicyclist). M&A conducted a site inspection on June 16 and noted that the perimeter fencing had been cut. Based on photo and site inspection on June 16, it is anticipated that the user cut the fence. A total of 262 trespassers were detected, consisting of 203 Bikers, 52 Pedestrians, and 7 Equestrian. Trespassers were detected every day of the week with the greatest amount of activity on Sundays and Saturdays between 7 AM – 10 AM. Activity Monday – Thursday was almost equivalent to the weekends; however, the greatest amount of activity was between 5 PM – 7 PM.
- East 3b – This is located in the Eastern Grassland Restoration Area, directed to an SDG&E easement road. No fencing repairs were needed and no gate repairs required at this location. Camera monitoring initiated on June 15. No illegal trail users were detected between June 15 and August 11.

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Action: Based on the data, if security were onsite to implement enforcement of trespassing (e.g., issue warnings, citations, confiscate vehicles), the greatest potential of detecting trespassers would be Sundays and Saturdays between 6 AM – 10 AM and Monday – Thursday between 5 PM – 7 PM. These times should be adjusted during the Fall and Winter to account for shorter hours of sunlight.

Data: Below are summary tables and graphs generated from the baseline monitoring event.

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Table 1. Total Number of Trespassers, per Day and by Type of Trespasser

Date	Day	Baseline Monitoring Data 2023 - Type of Trespassing					
		Biker	Dog Walker	Equestrian	Hiker	Jogger	Totals
6/15/2023	Thursday	19					19
6/16/2023	Friday	5			1		6
6/17/2023	Saturday	13			3	1	17
6/18/2023	Sunday	8		2	13	4	27
6/19/2023	Monday	5			8		13
6/20/2023	Tuesday	4			23	11	38
6/21/2023	Wednesday	4			1		5
6/22/2023	Thursday	4					4
6/23/2023	Friday					1	1
6/24/2023	Saturday	5	1	2	5	1	14
6/25/2023	Sunday	1			4		5
6/26/2023	Monday	1			3		4
6/27/2023	Tuesday	3					3
6/28/2023	Wednesday	5					5
6/29/2023	Thursday	5		7			12
6/30/2023	Friday	4					4
7/1/2023	Saturday	11			11	1	23
7/2/2023	Sunday	10			7	4	21
7/3/2023	Monday	4			1		5
7/4/2023	Tuesday	3			1	1	5
7/5/2023	Wednesday	2				2	4
7/6/2023	Thursday	4					4
7/7/2023	Friday	3					3
7/8/2023	Saturday	3			2		5
7/9/2023	Sunday	10			2		12
7/10/2023	Monday	12				3	15
7/12/2023	Wednesday	17			2		19
7/13/2023	Thursday	4					4
7/14/2023	Friday	3					3
7/15/2023	Saturday	3			7	3	13
7/16/2023	Sunday	4			8	5	17
7/17/2023	Monday	2				2	4
7/18/2023	Tuesday	4					4
7/19/2023	Wednesday	2					2
7/20/2023	Thursday	4			1		5
7/22/2023	Saturday	9			3		12
7/23/2023	Sunday	5					5

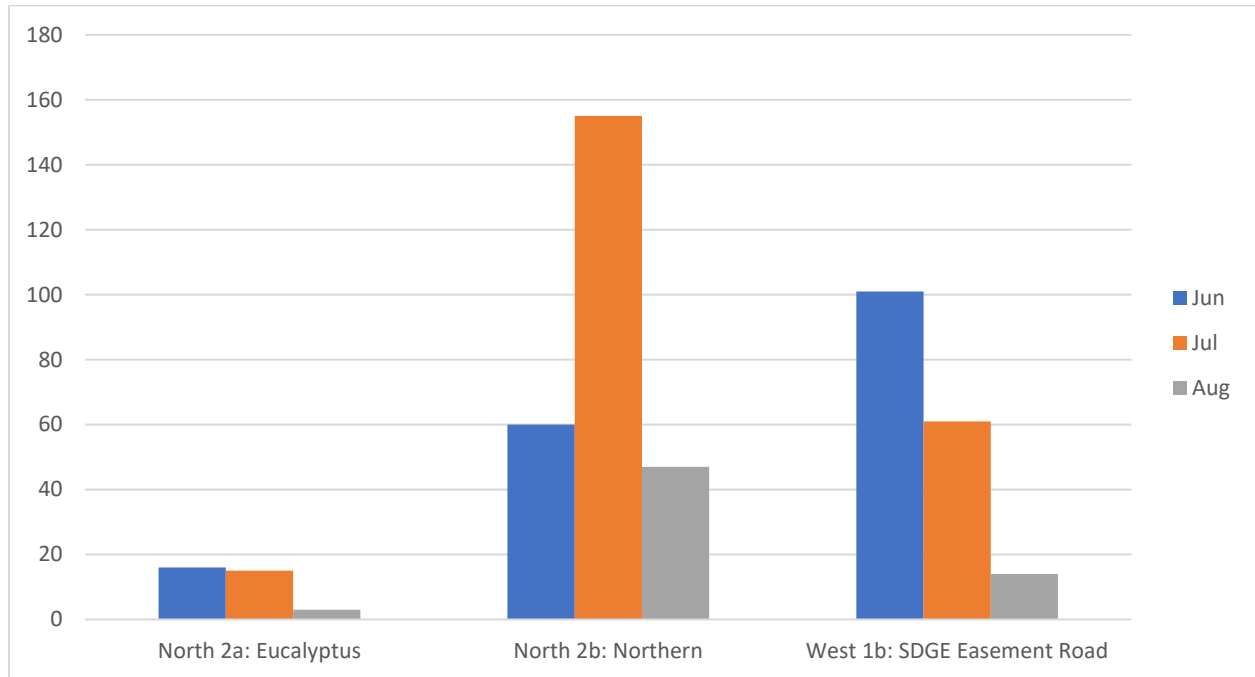
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Date	Day	Baseline Monitoring Data 2023 - Type of Trespassing					
		Biker	Dog Walker	Equestrian	Hiker	Jogger	Totals
7/24/2023	Monday	2		2		1	5
7/25/2023	Tuesday	2				2	4
7/26/2023	Wednesday	7					7
7/27/2023	Thursday	4					4
7/29/2023	Saturday	11					11
7/30/2023	Sunday	7				1	8
7/31/2023	Monday	4			1	2	7
8/1/2023	Tuesday	4			4		8
8/2/2023	Wednesday	11			2	2	15
8/3/2023	Thursday	1			2	1	4
8/4/2023	Friday	6					6
8/5/2023	Saturday	2			4	3	9
8/6/2023	Sunday	6			3		9
8/7/2023	Monday	5			1		6
8/8/2023	Tuesday	4					4
8/9/2023	Wednesday				2		2
8/10/2023	Thursday	1					1
Totals		282	1	13	125	51	472

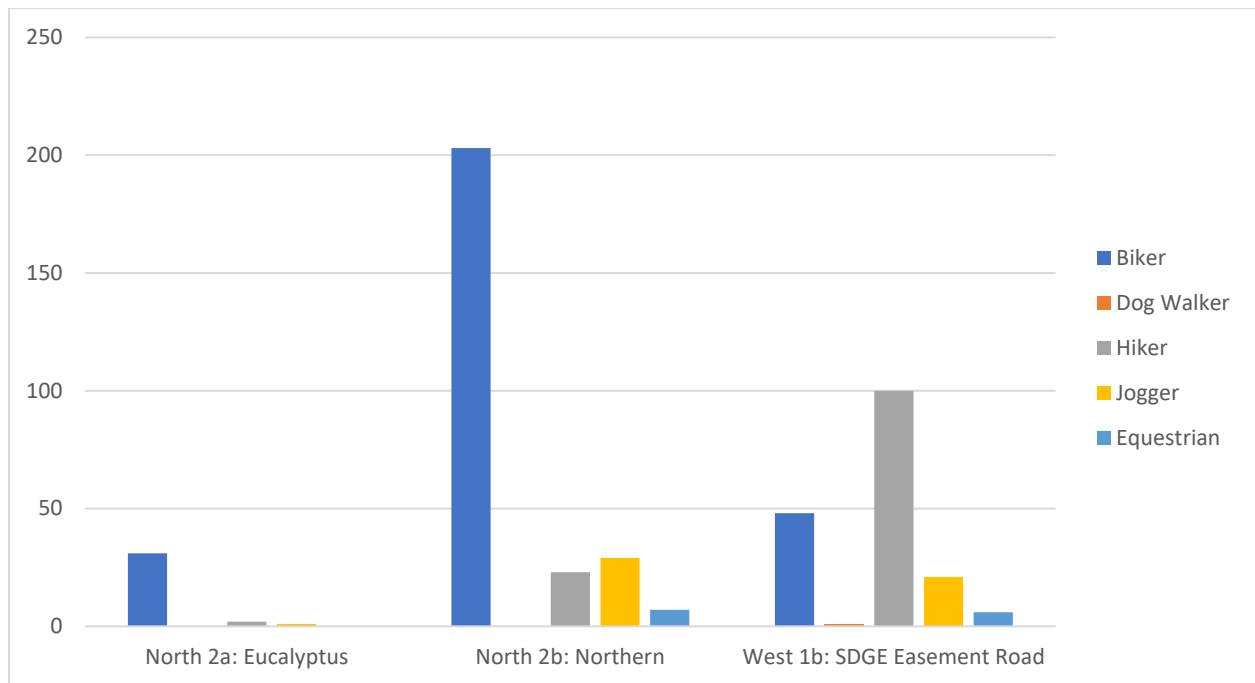
Table 2. Summary Number of Trespassers by Month

Location	Baseline Monitoring Data 2023			Grand Total
	June 15-30 (16 days)	July 1-31 (31 days)	August 1-11 (11 days)	
West 1a: SDG&E Old Rd - CAMERA STOLEN	No Data	No Data	No Data	No Data
West 1b: SDG&E Easement Road	101	61	14	176
North 2b: Northern	60	155	47	262
North 2a: Eucalyptus	16	15	3	34
East 3b: Eastern Grassland	0	0	0	0
Grand Total	177	231	64	472

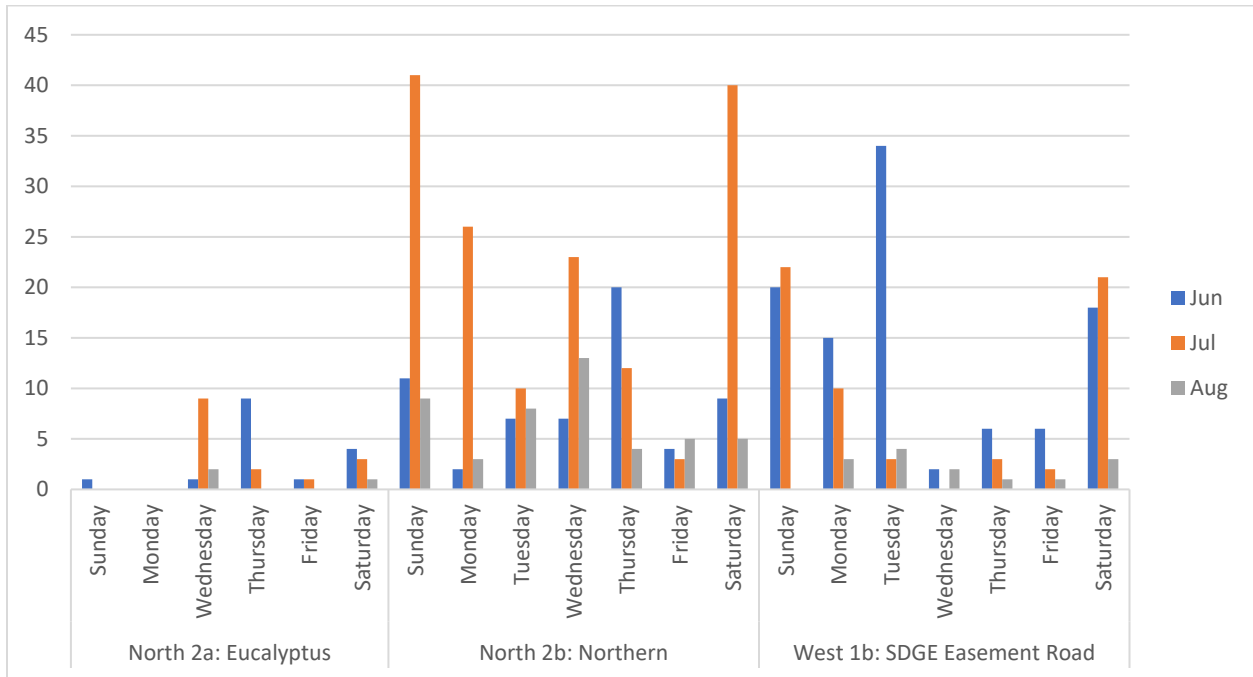
Graph 1. Trespassing Activity by Month and Location



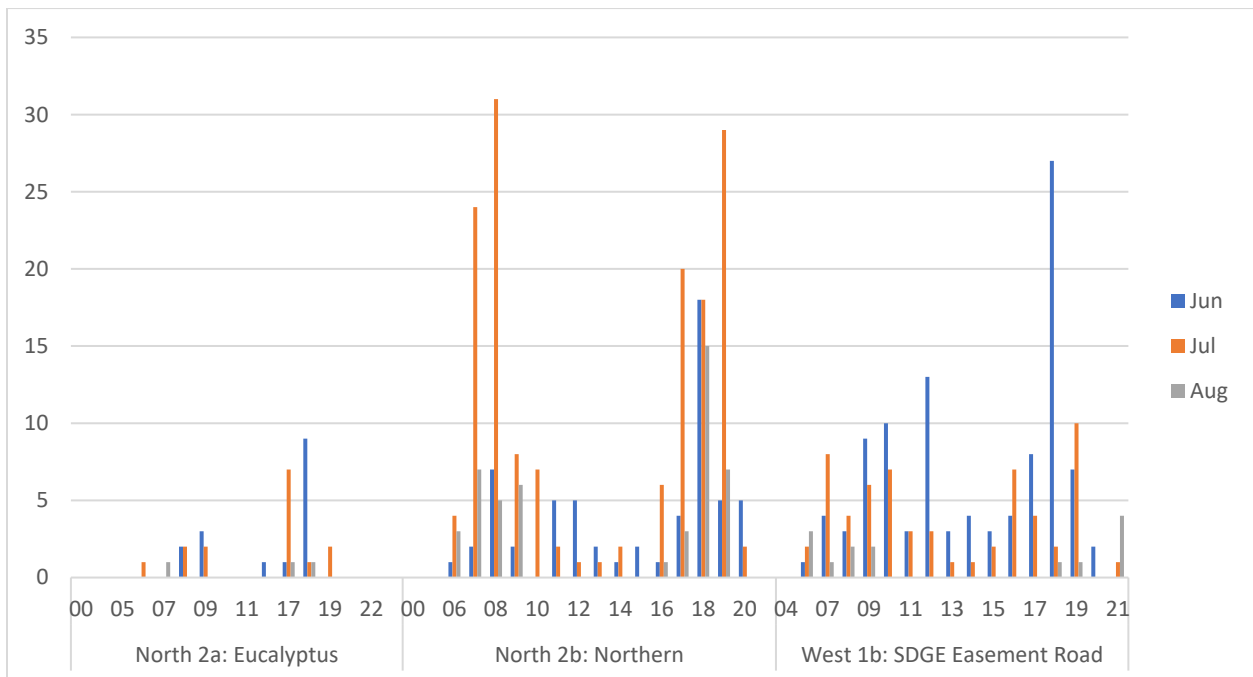
Graph 2. Trespassing Activity by Location and Type



Graph 3. Total Number of Trespasser by Day of the Week



Graph 4. Total Number of Trespasser by Location and Time of Day



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Provide the exact work start date, a description of the work completed under each task, and percent complete. Add additional tasks as necessary

Work Anticipated Next Period

This does not need to be task specific but should include a short paragraph or bullet point list of activities anticipated for next quarter.

- Follow-up coordination with USFWS and SDG&E regarding illegal entry from these offsite lands and installation of new gates/locks along the SDG&E easement corridors (West 1a and West 1b).
- Participation in community outreach events.
- Follow-up on the TrailForks app.
- Contract with gate contractor for installation of gates and locks.
- Coordinate with District's private security company for patrols of HMA at times of maximum illegal entry based on results of baseline camera trap monitoring.
- Contacting the Retired Volunteer Service Patrol and City of Chula Vista Police Department to supplement patrols of HMA at times of maximum illegal entry.
- Install all deterrence efforts (project monitoring cell-enabled cameras, cacti, private security, etc.) and initiate project monitoring.

Issues to Note

Please provide a brief description of any issue(s) encountered during the reporting period and any steps taken to address the issue(s).

- The baseline cameras captured 1000s of photos, primarily as a result of wind moving vegetation surrounding the hidden cameras. M&A adjusted the sensitivity of camera sensor. In addition, M&A returned more times than anticipated to download photos just in case any of the cameras were stolen (since the camera at West 1b was stolen during the 1st quarter).

Photographs & Figures

Photographs and figures are invaluable! Please include photos in the Quarterly Progress Reports and any figures (if applicable). Both photos and figures may be included throughout the document under corresponding tasks or at the end following the Issues to Note section. Photographs taken at the same place or photographic points (photo-points) can assist SANDAG staff in tracking the project's progress over time.

It is required that **Photographs include:**

- A before and after comparison sequence from the start to the completion of the project for photo points.
- A brief description of the corresponding tasks, date, and activity in the photograph.
- **A copy of each photograph included in the report submitted in a .jpeg or .png file format.**

It is required that **Figures include:**

- A caption with a brief description.

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SDMMP Project Page

To receive reimbursement for work conducted within the quarter, submission of Quarterly Progress, Annual, and Final Reports must be added to your project's Project Page on the SDMMP website. Add any necessary photographs to the photo carousal and fill out the photograph information. *Please contact Sarah McCutcheon (smccutcheon@usgs.gov) or Emily Perkins (eperkins@usgs.gov) if you are having trouble accessing or editing your project page.*

Project Performance Measures Instructions

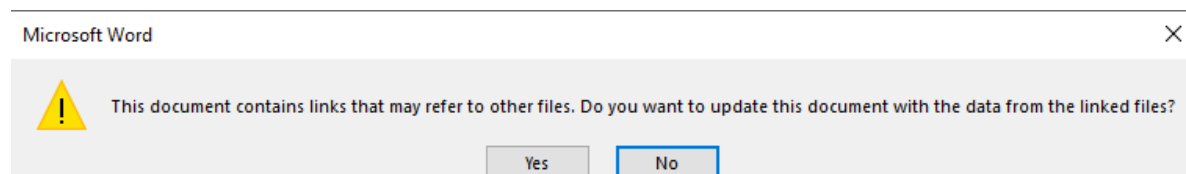
SANDAG will utilize the SANDAG Performance Measures to document compliance with the Project. Grantee's performance will be measured against the Performance Measures (Exhibit D) during the term of the project. More details on Performance Measures and Grant Recovery Plans are outlined in the Grant Agreements.

To access the **Project Performance Measures Excel Spreadsheet**:

- Simply double-click on the Excel icon located under the *Project Performance Measures* section.
 - An excel sheet will open, please fill out and then click save.
- Once the Excel spreadsheet is saved, please exit Excel and the spreadsheet will automatically update the icon in the Quarterly Progress Report Word document.

When opening the document with the **Project Performance Measures Excel Spreadsheet**:

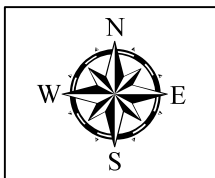
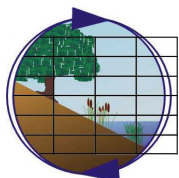
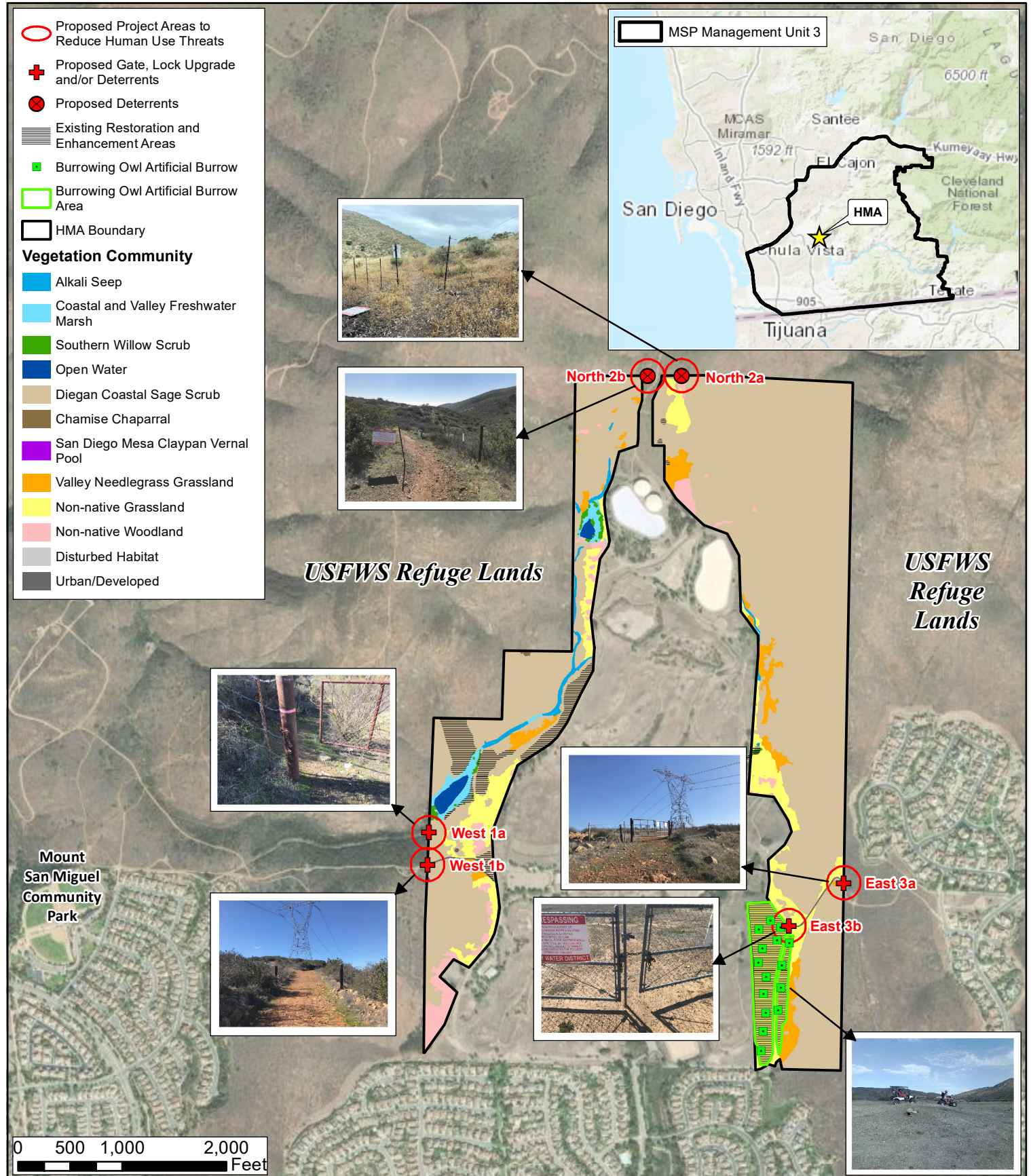
- When you first open the Quarterly Progress Report Template, a warning message will open (image of the warning message below)
 - Click Yes to update the links in the document.



Performance Measures

Please include the Project's Performance Measures for each Quarterly Invoice and Progress Report in order to receive reimbursement.





Threats Reduction TransNet EMP Land Management Grant - September 2023

Otay Water District San Miguel Habitat Management Area

Photo Page, Photos from Baseline Monitoring Cameras

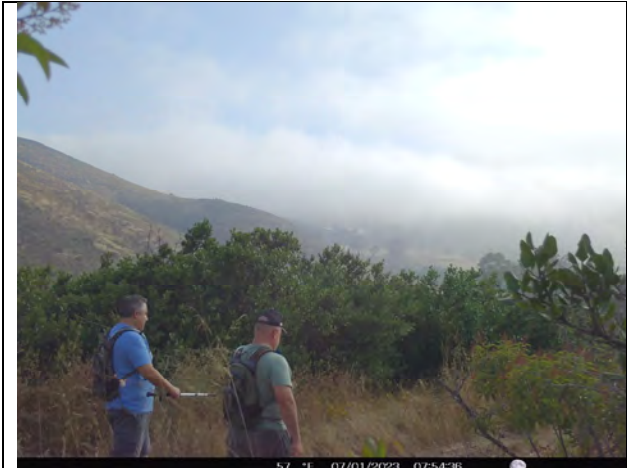


Photo 1 – Illegal Entry Point West 1b. Date: 7/1/23
Saturday. Time: 7:54am. Trespasser: Pedestrian



Photo 2 – Illegal Entry Point West 1b. Date: 7/2/23
Sunday. Time: 7:18am. Trespasser: Pedestrian



Photo 3 – Illegal Entry Point West 1b. Date: 7/15/23
Saturday. Time: 6:25am. Trespasser: Pedestrian



Photo 4 – Illegal Entry Point West 1b. Date: 7/31/23
Monday. Time: 4:20pm. Trespasser: Pedestrian



Photo 5 – Illegal Entry Point West 1b. Date: 8/7/23
Monday. Time: 6:12pm. Trespasser: Biker



Photo 6 – Illegal Entry Point West 1b. Date: 8/9/23
Wednesday. Time: 9:07am. Trespasser: Pedestrian



Photo 7 – Illegal Entry Point North 2b. Date: 7/1/23
Saturday. Time: 8:35am. Trespasser: Biker



Photo 8 – Illegal Entry Point North 2b. Date: 7/2/23
Sunday. Time: 7:17am. Trespasser: Biker



Photo 9 – Illegal Entry Point North 2b. Date: 7/24/23
Monday. Time: 5:53pm. Trespasser: Biker



Photo 10 – Illegal Entry Point North 2b. Date: 7/24/23
Monday. Time: 7:24pm. Trespasser: Equestrian



Photo 11 – Illegal Entry Point North 2b. Date: 7/25/23
Tuesday. Time: 10:05am. Trespasser: Biker



Photo 12 – Illegal Entry Point North 2b. Date: 8/7/23
Monday. Time: 6:23pm. Trespasser: Biker

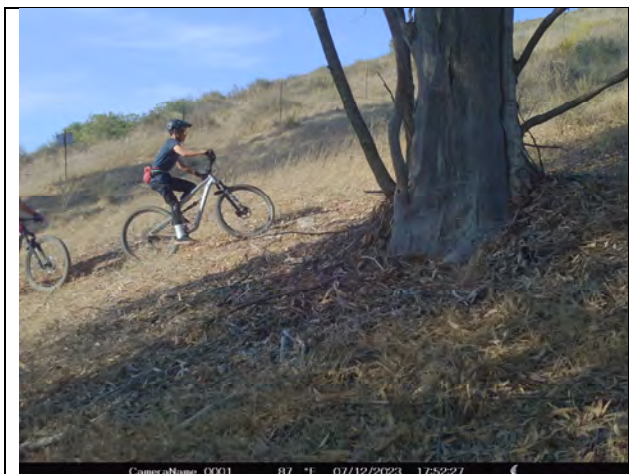


Photo 13 – Illegal Entry Point North 2a. Date: 7/12/23
Wednesday. Time: 5:52pm. Trespasser: Biker (group)



Photo 14 – Illegal Entry Point North 2a. Date: 7/12/23
Wednesday. Time: 7:36pm. Trespasser: Pedestrian



Photo 15 – Illegal Entry Point North 2a. Date: 7/13/23
Thursday. Time: 9:17am. Trespasser: Biker



Photo 16 – Illegal Entry Point North 2a. Date: 7/15/23
Saturday. Time: 9:00am. Trespasser: Pedestrian



Photo 17 – Illegal Entry Point North 2a. Date: 8/2/23
Wednesday. Time: 5:48pm. Trespasser: Biker



Photo 18 – Illegal Entry Point North 2a. Date: 8/5/23
Saturday. Time: 7:53am. Trespasser: Biker