BIOLOGICAL MONITORING COMPLETION REPORT

FOR THE

FORT ORD NATURAL RESERVE (FONR)

AT THE

OPERABLE UNIT CARBON TETRACHLORIDE PLUME (OUCTP)

FORMER FORT ORD, CALIFORNIA

February 14, 2025

Prepared for Ahtna Global, LLC 9699 Blue Larkspur Lane, Suite 201 Monterey, CA 93940

Prepared by
Denise Duffy & Associates, Inc.
947 Cass St., Suite 5
Monterey, CA 93940

CONTENTS

1	INTF	RODUCTION1
2	PRO	JECT INITIATION AND BASELINE SURVEY1
	2.1	Project Initiation1
	2.2	Site Description
	2.3	Baseline Survey Methodology
3	Resu	lts2
	3.1	Results for Surveys of Reference Sites 2024
	3.1.1	Monterey Spineflower2
	3.1.2	Monterey Gilia2
	3.2	Baseline Survey Results
	3.2.1	Monterey Spineflower Survey Area Results
	3.2.2	Monterey Gilia Survey Area Results
	3.2.3	Yadon's piperia Survey Area Results3
4	CON	ISTRUCTION PHASE BIOLOGICAL MONITORING4
5	ANN	IUAL FOLLOW-UP SURVEYS6
6	REF	ERENCES
A	ATTA	ACHMENTS
		HMENT A2024 BASELINE SURVEY RESULTS
		HMENT BHABITAT CHECKLIST
		HMENT COLD COUNTY ROAD DISTURBANCE FIGURE
		HMENT D CONSTRUCTION PHASE BIOLOGICAL MONITORING LOG
Α	ТТАСЬ	HMENT EPHOTO JOURNAL

1 INTRODUCTION

The former Fort Ord, located in northern Monterey County, California was an active U.S. Army base from 1917 to 1994, encompassing approximately 28,000 acres. The U.S. Environmental Protection Agency added Fort Ord to the National Priorities List primarily based on groundwater contamination discovered in 1990 beneath the Fort Ord Landfills. Fort Ord was placed on the Base Realignment and Closure list in 1991. As the lead agency, the U.S. Department of the Army (Army) manages the cleanup of the former Fort Ord in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act. Activities include implementation of selected remedies for site cleanup of hazardous substances released into the environment due to previous Army activities. The remedial alternative and cleanup goals are selected in a decision document, and remedial activities are initiated accordingly.

This project involved construction of a groundwater extraction well and associated conveyance pipeline for the Operable Unit Carbon Tetrachloride Plume (OUCTP) remedy in the Upper 180-Foot Aquifer. Groundwater at OUCTP is considered a potential drinking water, industrial water, and agricultural water source, although the water is not currently being used for these purposes. Accordingly, the OUCTP groundwater remedy goals are to protect human health and comply with Federal and State laws and regulations by returning groundwater to a condition that will allow beneficial use, including potential future use as a drinking water source.

2 PROJECT INITIATION AND BASELINE SURVEY

Ahtna Global, LLC (Ahtna) contracted Denise Duffy and Associates, Inc. (DD&A) to conduct baseline surveys and provide construction phase biological monitoring within the University of California (UC) Fort Ord Natural Reserve (FONR). This task required part-time and on-call environmental monitoring of construction activities to advise the Ahtna Field Supervisor on avoidance of special-status plant and wildlife species, and to provide guidance on minimizing habitat impacts in response to requests from the construction field staff. Construction-related activities for the project include installation of one extraction well (EW-OU2-13-180) and conveyance pipeline for Operable Unit Carbon Tetrachloride Plume (OUCTP).

2.1 Project Initiation

DD&A coordinated with Ahtna, the U.S. Army Corps of Engineers (USACE), the U.S. Army Base Realignment and Closure (BRAC) Fort Ord Field Office, and FONR staff to finalize the scope and project path, as well as identify project boundaries, project footprint, and site access. The following facilities, including secondary access routes, were included in the 2024 baseline rare plant survey and biological monitoring effort (Attachment A):

- Three reference locations on FONR South
- New extraction well EW-OU2-13-180

- Approximately 750 feet of conveyance pipeline and secondary access route between existing extraction well EW-OU2-09-180 and new extraction well EW-OU2-13-180 (the Invasive Work Area)
- Proposed approximately 135 feet of secondary access route between EW-OU2-09-180 and the southern FONR boundary (the Non-Invasive Work Area)

2.2 SITE DESCRIPTION

FONR is approximately 605 acres in size, and it comprises three distinct sections separated by roads. The work described in this report was conducted in the section of FONR south of Reservation Road and east of Imjin Parkway. The habitats present within FONR include coast live oak woodland, maritime chaparral, coastal scrub, disturbed/developed land, and annual grassland. The 2024 baseline survey area (see Attachment A) included portions of coast live oak woodland, annual grassland, and disturbed/developed land on FONR.

2.3 BASELINE SURVEY METHODOLOGY

The Scope of Work (SOW) provided by Ahtna to DD&A complied with the Habitat Management Plan (HMP) for the Former Fort Ord, California (USACE, 1997), and the Programmatic Biological Opinion (PBO; U.S. Fish and Wildlife Service [USFWS], 2017). The SOW requires baseline biological surveys be conducted to establish whether protected species are present prior to work operations, and to avoid and minimize impacts during work operations. DD&A conducted baseline surveys for federally listed HMP species, including the federally Threatened Monterey spineflower (*Chorizanthe pungens* var. *pungens*), federally Endangered and state Threatened Monterey gilia (*Gilia tenuiflora* ssp. *arenaria*), and federally Endangered Yadon's piperia (*Piperia yadonii*). These annual plant species must be blooming to make a positive identification. The timing of surveys for these species at the reference sites and within the work area was informed by DD&A's experience with the historical blooming period for each species, review of known reference populations in the vicinity, and conferring with other local experts. Table 1 details the dates that DD&A conducted reconnaissance surveys of known reference populations for the target species. Baseline survey efforts began April 19, 2024, and were concluded May 31, 2024.

¹ Surveys did not occur during the appropriate blooming period for Yadon's piperia because it does not coincide with the blooming period for Monterey spineflower or Monterey gilia. However, surveys were conducted during the period where piperia basal rosettes could be identified. DD&A documented potential piperia basal rosettes and relayed their location information to the BRAC Biologist so that follow-up surveys during the appropriate blooming period may be conducted, if necessary.

Table 1. Target Species Known Reference Populations Reconnaissance Survey Dates

Common Name	Species Name	Survey Dates
Monterey Gilia	Gilia tenuiflora ssp. arenaria	March 5, 15, 19, 26, 27, 28; April 2, 3; May 10, 13, 2024
Monterey Spineflower	Chorizanthe pungens var. pungens	March 5, 15, 19, 26, 27, 28; April 2, 3; May 10, 13, 2024
Yadon's Piperia	Piperia yadonii	June 13, 27, 28; July 2, 10, 2024

The baseline survey area included the location of new extraction well EW-OU2-13-180, one existing extraction well EW-OU2-09-180, and approximately 750 feet of conveyance pipeline between existing extraction well EW-OU2-09-180 and new extraction well EW-OU2-13-180 (survey area; Attachments A-1, and A-2). The work area included proposed and existing secondary access routes, a 30-foot buffer area north of the centerline of the secondary access routes a 10-foot buffer area south of the centerline of the secondary access routes, and a 25-foot buffer around new extraction well EW-OU2-13-180 to accommodate staging for equipment and materials and construction operations (Attachment A-2). DD&A, in coordination with Ahtna, determined that a baseline survey area with a minimum 20-foot buffer area outside the work area was sufficient to encompass all areas of potential impacts associated with the project, including laydown/staging and parking. DD&A surveyed these areas for the three HMP plant species (Monterey spineflower, Monterey gilia, and Yadon's piperia) during three survey efforts. Baseline rare plant survey methods were based on methods DD&A used previously for vegetation surveys at FONR (HGL, 2008, 2009, 2010, 2011, 2012, 2013, 2014a, 2014b, 2015, 2016, 2017, 2018, and DD&A, 2022, 2023).

Where found, DD&A mapped the locations of the three rare plant species using a Trimble® Geo 7 Series centimeter accurate global positioning system (GPS) unit with an external Zephyr Model 2 antenna. When either Monterey spineflower, Monterey gilia, or Yadon's piperia were identified, the survey in that area was extended to the boundary of the population encountered. Monterey spineflower and Monterey gilia populations exceeding five individuals within three feet of each other were mapped as polygons, with attributes to identify the number of individuals for Monterey gilia or percentage absolute cover for Monterey spineflower. The classes used for percentage cover were:

- Very Sparse (corresponding to an absolute cover of less than 3 percent),
- Sparse (3-25 percent absolute cover),
- Medium Low (26-50 percent absolute cover),
- Medium (51-75 percent absolute cover),
- Medium High (76-97 percent absolute cover), and
- Very High (>97-100 percent absolute cover).

Populations below five were mapped as points with attributes identifying the number of individuals at each location.

GPS data, defining the population boundaries and/or point location(s), were exported to shapefile format. Shapefiles were then imported into the Geographic Information System (GIS) ESRI® ArcGIS 10.4 software platform and overlain on high-resolution aerial photography/satellite imagery.

3 RESULTS

3.1 RESULTS FOR SURVEYS OF REFERENCE SITES 2024

As part of the survey effort, DD&A conducted rare plant surveys on UC FONR reference sites. Three UC Santa Cruz (UCSC) reference plots have been designated for the 2024 survey effort (Attachments A-1 and A-3 through A-5). DD&A surveyed the reference plots for Monterey spineflower and Monterey gilia on April 19 and May 31, 2024. Attachments A-3 through A-5 and Tables 2 and 3 include data from the reference plots located on FONR.

3.1.1 MONTEREY SPINEFLOWER

In 2024, Monterey spineflower occupied 1,278 square feet at the reference plots (Table 2 and Attachments A-3 through A-5).

Table 2. Monterey Spineflower at UCSC Reference V1 Plots 1, 2, and 3

V1 Plot Number	Year	# of Populations	# of Points	# of Polygons	Total Area of Polygons (ft²)
Plot 1	2024	3	1	2	545
Plot 2	2024	0	0	0	0
Plot 3	2024	1	0	1	733
Total	2024	4	1	3	1,278

3.1.2 MONTEREY GILIA

In 2024, a total of 154 individual Monterey gilia plants were observed at the reference plots (Table 3 and Attachments A-2 through A-4).

Table 3. Monterey Gilia at UCSC Reference V1 Plots 1, 2, and 3

V1 Plot Number	Year	# of Populations	Individual Plants	# of Points	# of Polygons	Total Area of Polygons (ft²)
Plot 1	2024	4	82	2	2	212
Plot 2	2024	4	9	4	0	0
Plot 3	2024	6	63	5	1	205
Total	2024	14	154	11	3	417

3.2 BASELINE SURVEY RESULTS

3.2.1 Monterey Spineflower Survey Area Results

In 2024, DD&A documented Monterey spineflower within the survey area. Monterey spineflower occupied 2,927 square feet within the survey area. Monterey spineflower was found within 50 feet of the new extraction well location (EW-OU2-13-180), along pipeline from the existing extraction well (EW-OU2-09-180) and the new extraction well (EW-OU2-13-180), and within 20 feet of the secondary access routes (Table 4 and Attachment A-2).

Table 4. Monterey Spineflower Baseline Survey Area Results

	Year	# of Populations	# of Points	# of Polygons	Total Area of Polygons (ft²)
Total	2024	26	9	17	2,927

3.2.2 Monterey Gilia Survey Area Results

In 2024, DD&A documented a total of 31 Monterey gilia plants within the survey area (Table 5 and Attachment A-2). Monterey gilia was found within 50 feet of the existing extraction well (EW-OU2-09-180) and within 20 feet of the secondary access routes.

Table 5. Monterey Gilia Baseline Survey Area Results

	Year	# of Populations	Individual Plants	# of Points	# of Polygons	Total Area of Polygons (ft²)
Total	2024	1	31	0	1	76

3.2.3 YADON'S PIPERIA SURVEY AREA RESULTS

In 2024, DD&A documented a total of three individual Piperia plants within the survey area (Table 6 and Attachment A-2). Piperia was found within 50 feet of the proposed conveyance pipeline between existing extraction well (EW-OU2-09-180) and new extraction well (EW-OU2-13-180).

Table 6. Piperia Baseline Survey Area Results

	Year	# of Populations	Individual Plants	# of Points	# of Polygons	Total Area of Polygons (ft²)
Total	2024	2	3	2	0	0

Based on the baseline survey data, modifications to the new extraction well (EW-OU2-13-180), conveyance pipeline, or secondary access routes were not necessary to minimize impacts to HMP plant species because populations were avoided to the greatest extent feasible, Monterey gilia had senesced by the time construction activities occurred in June 2024, and impacts were minimal due to the limited project related disturbance (i.e., driving over senesced plants). DD&A biologists coordinated with the Ahtna Field Supervisor and construction personnel on appropriate access routes, staging areas, and turnaround locations within the baseline survey area to avoid HMP species to the greatest extent feasible. DD&A relayed the location of the piperia individuals to the BRAC Biologist to perform follow-up surveys during the appropriate blooming period to determine species. DD&A did not receive confirmation on species; however, during the construction activities, DD&A was able to confirm that all piperia species identified within the survey area were *Piperia michaelii* and not *P. yadonii*. Discussion with the on-site DD&A biologist and construction personnel prior to mobilization at the well and pipe locations ensured that construction equipment was placed to avoid HMP species to the greatest extent possible.

4 CONSTRUCTION PHASE BIOLOGICAL MONITORING

Ahtna prepared a Habitat Checklist (HCL) in coordination with DD&A prior to construction (Ahtna, 2024; Attachment B). The HCL outlined specific avoidance and minimization measures, as required by the HMP and PBO, which Ahtna, construction personnel, and DD&A implemented during project activities to reduce impacts to HMP species. The BRAC Biologist, DD&A Project Biologist, Ahtna Project Manager, and the Ahtna Field Supervisor signed the HCL prior to work initiation. As required by the HMP, construction personnel used existing roads to the greatest extent feasible. Ahtna and DD&A sited access roads, staging areas, and other appurtenant facilities to minimize impacts to HMP plant species. DD&A flagged the identified populations of Monterey gilia and Monterey spineflower for avoidance. Construction personnel utilized matting to reduce the level of disturbance around the well and pipe installation locations. Ahtna and construction personnel stockpiled topsoil on site from areas with Monterey spineflower that experienced ground disturbance (i.e., trenching for the pipeline) to be replaced post-construction. Equipment coming from off-site was dry brushed prior to entering FONR to reduce the potential to spread non-native invasive plant species.

Construction activities, which included the installation and connection of one extraction well (EW-OU2-13-180) to the existing groundwater treatment system framework through installation of pipe within FONR, were initiated on June 17, 2024 and were completed on November 8, 2024. DD&A biologists conducted the initial Environmental Awareness Training for all supervisors and field personnel associated with extraction well installation on June 18, 2024 and for all supervisors and field personnel associated with pipeline installation on September 4, 2024. DD&A biologists were available during all phases of work to monitor activity and ensure compliance with all relevant mitigation measures.

On September 5, 2024, Ahtna subcontractors delivered materials for the pipeline installation within the secondary access road between the new extraction well EW-OU2-13-180 and the existing extraction well EW-OU2-09-180. Pipeline materials were delivered to the work area on large trucks via Old County Road.

Three times during these activities the trucks left the defined corridor of Old County Road and disturbed undeveloped habitat next to the road in the vicinity of previously documented Monterey gilia populations (Fred Watson, personal communication, September 5, 2024). These areas were not surveyed by DD&A prior to the start of construction activities, because it is not required by the PBO. Additionally, all construction personnel were given environmental awareness training which included remaining within established roadways. Following this incident, DD&A met with staff from USACE, Ahtna, BRAC, and UCSC in the field and via teleconference to discuss potential impacts and recommend additional measures to reduce the potential for impacts of this type in the future. Mitigation measures for the September 5, 2024 incident included:

- 1. Raking disturbed areas to pre-disturbance contours to the extent possible.
- 2. DD&A collected spatial data to document the extent of the disturbed areas using centimeter accurate GPS equipment (Attachment C) to allow for follow-up surveys for rare plant populations at the three documented locations along Old County Road. Follow-up surveys will follow the methodology detailed in the PBO.

Recommended measures for future work in the FONR included:

- 1. Radio communication between delivery trucks to ensure that only one truck would be using Old County Road at a time.
- 2. Visible physical barriers/stakes installed along access routes.
- 3. Physically taping off the staked rare plant populations in the high traffic areas.
- 4. Rubber sand mats will be used on soft portions of access routes.
- 5. For future ground-disturbing activities within FONR, schedule a meeting (before development of habitat checklist) between Ahtna, the biological subcontractor, UCSC, and BRAC to go over the action description, areas of impact (construction footprint, access, laydown, etc.), and required measures.
- 6. Subcontractor scopes of work will define areas for staging equipment and materials and turnaround areas.
- 7. Project plans will be conservative in estimating the construction footprint for the purpose of defining the extent of the baseline survey.

Attachment D details the specific monitoring events and communication by DD&A personnel after the initiation of construction activities at FONR. Attachment D also documents communication and meetings with staff from Ahtna and subcontractors as well as construction oversight by DD&A biologists. DD&A staff was present on-site daily for the majority of the construction activities and discussed the daily activities with Ahtna and construction personnel prior to any daily monitoring activities. DD&A staff took

photographs before, during, and after work to document construction impact. Before² and after photographs are included in Attachment E.

5 ANNUAL FOLLOW-UP SURVEYS

The PBO requires annual follow-up surveys (annual surveys) for up to three years following the connection and installation of the well (USFWS, 2017). The first annual survey will be conducted in 2025, employing the same methodology used for the baseline survey. The surveying biologists should communicate with all relevant parties prior to conducting annual surveys. The PBO states that in FONR:

"Monitoring will be suspended at sites where HMP annuals have not been documented during baseline surveys nor in the first year of follow up surveys. Additionally, surveys for HMP annuals will not be conducted in areas considered low quality habitat for these species" (USFWS, 2017).

During the 2024 baseline surveys, 26 populations of Monterey spineflower plants and one population of Monterey gilia plants (31 individuals) were identified within 50 feet of the location for pipe installation and the new extraction well (EW-OU2-13-180) and within 20 feet of secondary access routes for existing extraction well (EW-OU2-09-180) (Attachment A-5). Therefore, the 750 feet of conveyance pipeline and secondary access route between the existing extraction well EW-OU2-09-180 and new extraction well EW-OU2-13-180, the work area surrounding new extraction well EW-OU2-13-180, and the secondary access routes from the FONR boundary to EW-OU2-09-180 will be monitored for three years. As mentioned above, the three locations that were impacted outside of the defined boundaries of Old County Road will also be monitored for 3 years. The surveying biologist should provide a report for each annual survey summarizing survey activities and results, including photographic documentation, survey results, cartographic materials, and recommendations for mitigation measures, if necessary.

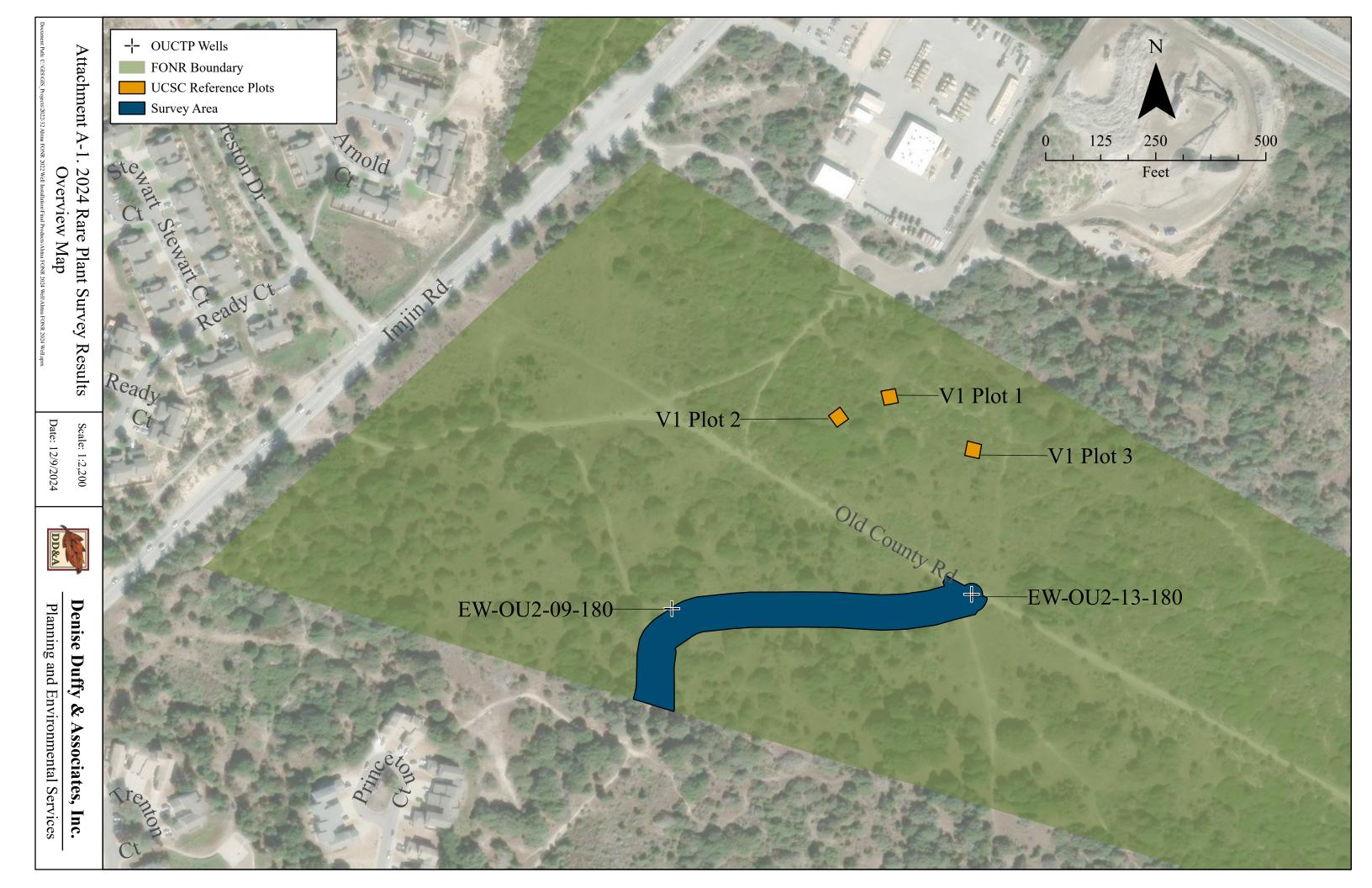
² The UC FONR Steward performed vegetation clearance prior to the start of construction; therefore, "before" pictures were taken before drilling operations commenced but after vegetation had been cleared at each well site.

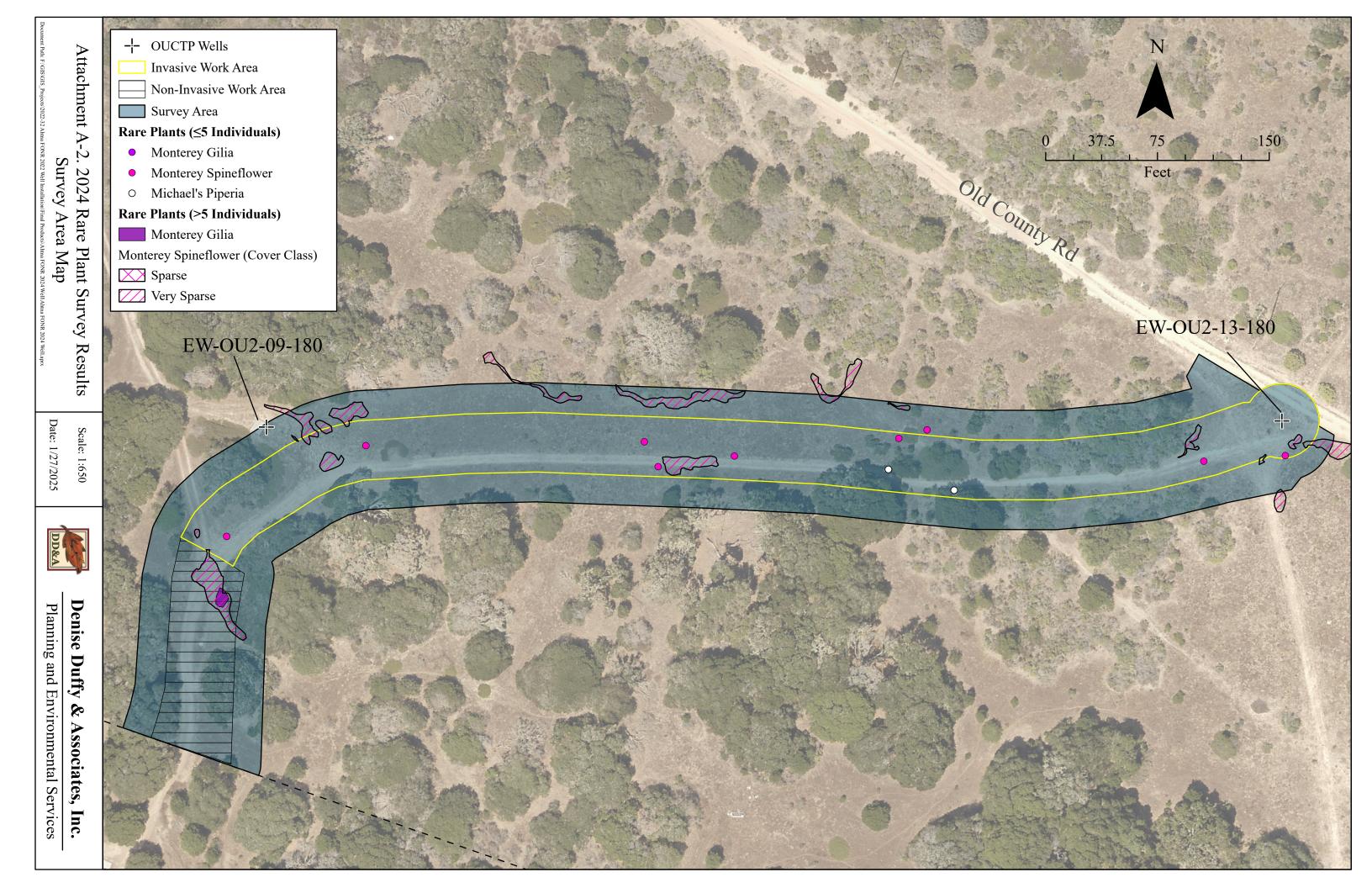
6 REFERENCES

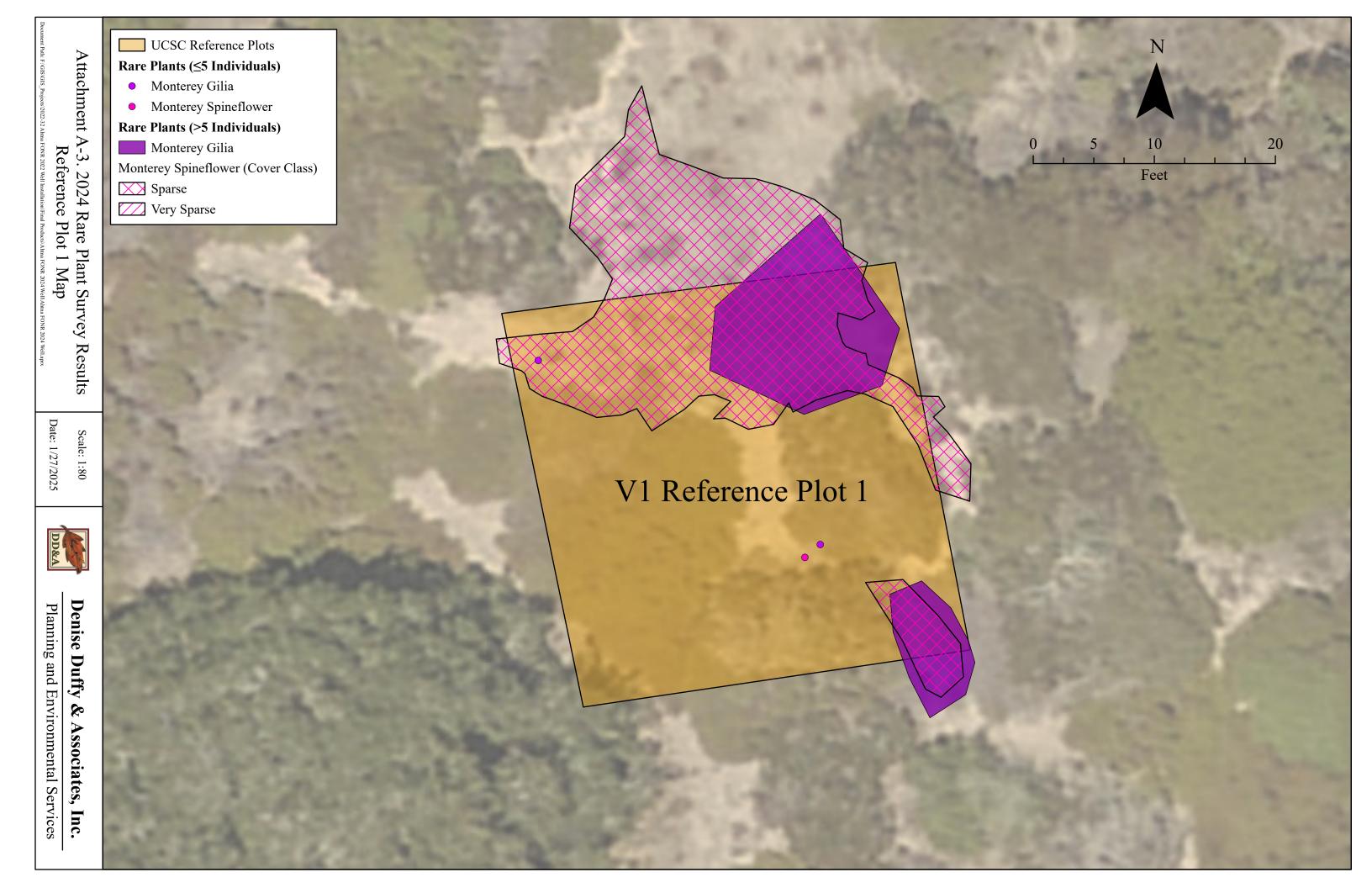
- Ahtna Global LLC. (Ahtna). 2023. Fort Ord Natural Reserve Site Habitat Checklist (HCL). October 25.
- U.S. Army Corps of Engineers (USACE). 1997. Installation-Wide Multispecies Habitat Management Plan (HMP) for Former Fort Ord, California. April. AR# BW-1787.
- Denise Duffy & Associates, Inc. (DD&A). 2022. Biological Monitoring Completion Report for the FONR Per- and Polyfluoroalkyl Substance (PFAS) Site Inspection, Former Fort Ord, California. March. AR# OU1-534D.
- DD&A. 2023. Biological Monitoring Completion Report for the FONR Per- and Polyfluoroalkyl Substance (PFAS) Site Inspection, Former Fort Ord, California. March. AR# OU1-534D.
- HydroGeoLogic, Inc. (HGL). 2008. 2007 FONR Impact Assessment and Habitat and Rare Plant Survey Results, Fritzsche Army Airfield Fire Drill Area, Former Fort Ord, California. February. AR# OU1-534D.
- HGL. 2009. 2008 FONR Impact Assessment and Habitat and Rare Plant Species Survey Results, Fritzsche Army Airfield Fire Drill Area, Former Fort Ord, California. January. AR# OU1-564.
- HGL. 2010. 2009 FONR Impact Assessment and Habitat and Rare Plant Species Survey Results, Fritzsche Army Airfield Fire Drill Area, Former Fort Ord, California. December. AR# OU1-574.
- HGL. 2011. 2010 FONR Impact Assessment and Habitat and Rare Plant Species Survey Results, Fritzsche Army Airfield Fire Drill Area, Former Fort Ord, California. January. AR# OU1-585.
- HGL. 2012. 2011 FONR Impact Assessment and Habitat and Rare Plant Species Survey Results, Fritzsche Army Airfield Fire Drill Area, Former Fort Ord, California. January. AR# BW-2614.
- HGL. 2013. 2012 FONR Impact Assessment and Habitat and Rare Plant Species Survey Results, Operable Unit 1, Former Fort Ord, California. February. AR# OU1-600.
- HGL. 2014a. 2013 FONR Impact Assessment and Habitat and Rare Plant Species Survey Results, Operable Unit 1, Former Fort Ord, California. December. AR# OU1-605.
- HGL. 2014b. 2014 FONR Impact Assessment and Habitat and Rare Plant Species Survey Results, Operable Unit 1, Former Fort Ord, California. December. AR# OU1-612.
- HGL. 2015. 2015 FONR Impact Assessment and Habitat and Rare Plant Species Survey Results, Operable Unit 1, Former Fort Ord, California. December. AR# OU1-622.
- HGL. 2016. 2015 FONR Impact Assessment and Habitat and Rare Plant Species Survey Results, Operable Unit 1, Former Fort Ord, California. September. AR# OU1-622.2.
- HGL. 2017. 2016 FONR Impact Assessment and Habitat and Rare Plant Species Survey Results, Operable Unit 1, Former Fort Ord, California. December. AR# OU1-628.

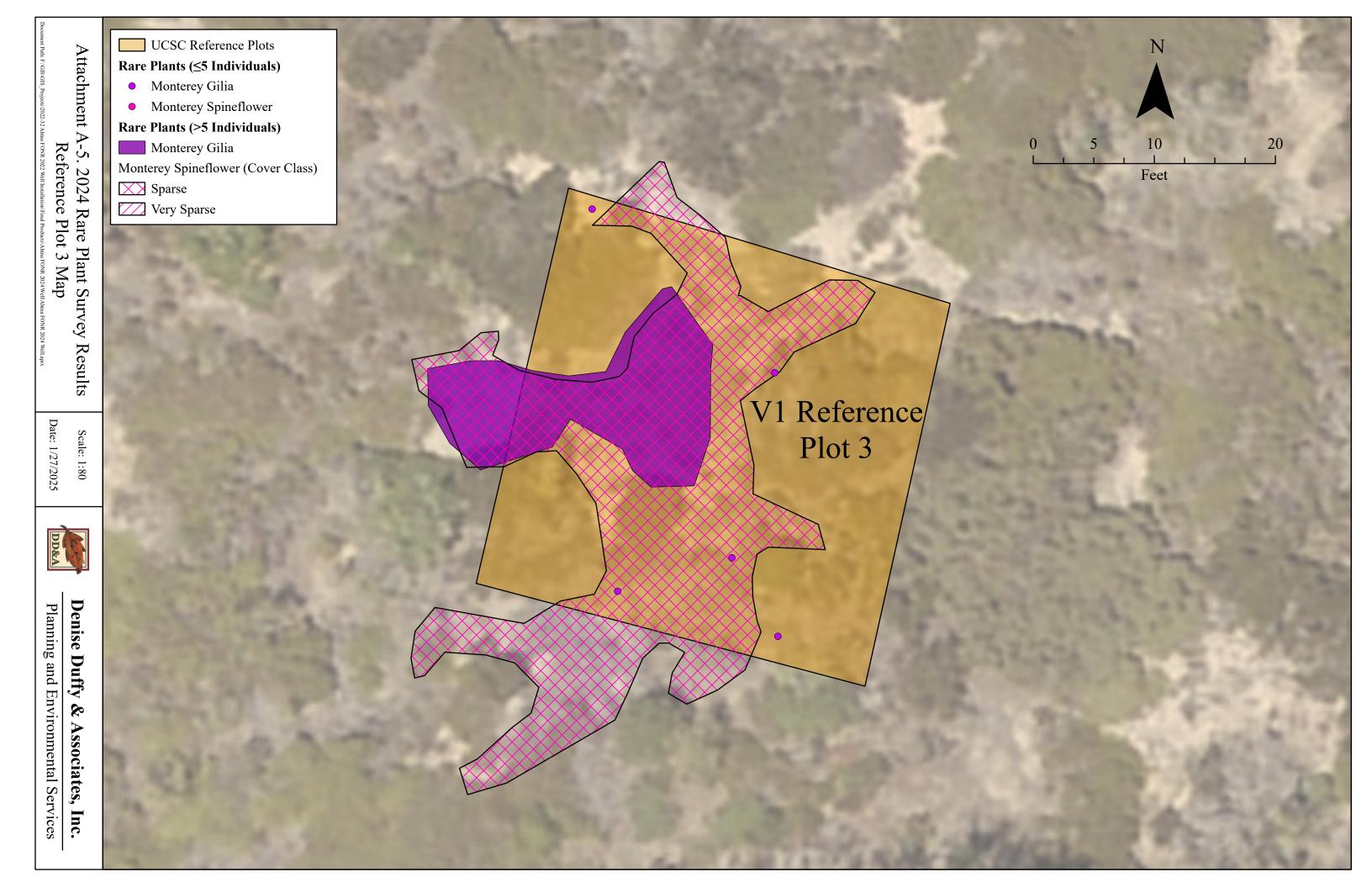
- HGL. 2018. 2017 FONR Impact Assessment and Habitat and Rare Plant Species Survey Results, Operable Unit 1, Former Fort Ord, California. December. AR# OU1-632.
- U.S. Fish and Wildlife Service (USFWS). 2015. Programmatic Biological Opinion for Cleanup and Property Transfer Actions Conducted at the Former Fort Ord, Monterey County, California (8-8-09-F-74). May 28. AR# BW-2747.
- USFWS. 2017. Reinitiation of Formal Consultation for Cleanup and property Transfer Actions Conducted at the Former Fort Ord, Monterey County, California (Original Consultation #8-8-09-F-74, 81440-2009-F-0334). June 7. AR# BW-2747A.

ATTACHMENT A 2024 BASELINE SURVEY RESULTS









ATTACHMENT B HABITAT CHECKLIST

Ahtna Global, LLC. 06/17/2024

FORT ORD NATURAL RESERVE SITE HABITAT CHECKLIST

The following are requirements to minimize biological disturbances to protected species and habitat.

Please notify Matthew Johnson, DD&A Biologist (831-917-3242), *before* proceeding if work tasks or work boundaries change, additional vegetation removal is necessary, vegetation cutting methods change, or any other conditions change. Field Supervisors must receive a copy of this checklist. Contact Number for the BRAC Biologist is (831) 242-7918.

SITE:	UC FONR OUCTP Extraction	n Well Installa	ation	DATE:	06/17/2024
WORK TO BE CONDUCTED:	Livitrootion wall and aggociated conveyance minaline installation				
1. LAND USE:	◯ Habitat Reserve	☐ Devel	opment Area	Oth	ner (specify):
	☐ Army	Location:			
2. LAND OWNER	R: BLM	Location:			
	Other: UC	Location:	Fort Ord Natural R	eserve	
3. ENDANGERED HMP-LISTED), THREATENED, RARE, (SPECIES	OR E	Yes No	Fl	agged/Marked
 Black legless lizard (Anniella pulchra) (CDFW SSC) (BLL) California tiger salamander (Ambystoma californiense; CTS) (FT, ST, CDFW SSC) Coast horned lizard (Phrynosoma blainvillii) (CDFW SSC) Coast wallflower (Erysimum ammophilum) (CNPS 1B) Eastwood's goldenbush (Ericameria fasiculata) (CNPS 1B) Monterey ceanothus (Ceanothus rigidus) (CNPS 4) Monterey dusky-footed woodrat (Neotoma fuscipes luciana) Monterey manzanita (Arctostaphylos montereyensis) (CNPS 1B) Monterey ornate shrew (Sorex ornatus salarius) (CDFW SSC) Monterey spineflower (Chorizanthe pungens var. pungens) (FE, CNPS 1B) Sand gilia (Gilia tenuiflora ssp. arenaria) (FE, ST, CNPS 1B) Sandmat manzanita (Arctostaphylos pumila) (CNPS 1B) Seaside bird's-beak (Cordylanthus rigidus var. littoralis) (SE, CNPS 1B) 				W SSC)	
Locat		and gilia flagged	for avoidance, when po	ssible.	
Grid Numb	ers:				
Restrictions: Impacts to shrub species will be avoided to the greatest extent feasible. Remain on or within designated access routes and the delineated well installation buffer at all times (see attached map). CTS encounters must be reported immediately to Field Supervisor and DD&A Biologist. CTS must only be handled					

- CTS encounters must be reported immediately to Field Supervisor and DD&A Biologist. CTS must only be handled by a Service-approved biologist. Contact Matthew Johnson (831-917-3242) to document, handle, or relocate CTS if encountered. Mr. Johnson will coordinate with the BRAC biologist (831-242-7918) during these processes. Work must stop until CTS can be relocated. CTS field observation form will be filled out by Service-approved biologist.
- BLL encounters should be reported immediately to Field Supervisor and DD&A Biologist. Field Supervisor or DD&A Biologist should complete the attached BLL Field Observation Form. BLL should be relocated by Field Supervisor or DD&A Biologist close to the original site (20-100 ft), under shade, and on the surface allowing the specimen to bury itself
- Do not exceed 15 MPH within FONR.
- Do not litter. Remove trash from the job site on a daily basis.
- DD&A Biologists will escort drill rigs and support trucks as they traverse the FONR to clear the road for coast horned lizards.

Ahtna Global, LLC. 06/17/2024

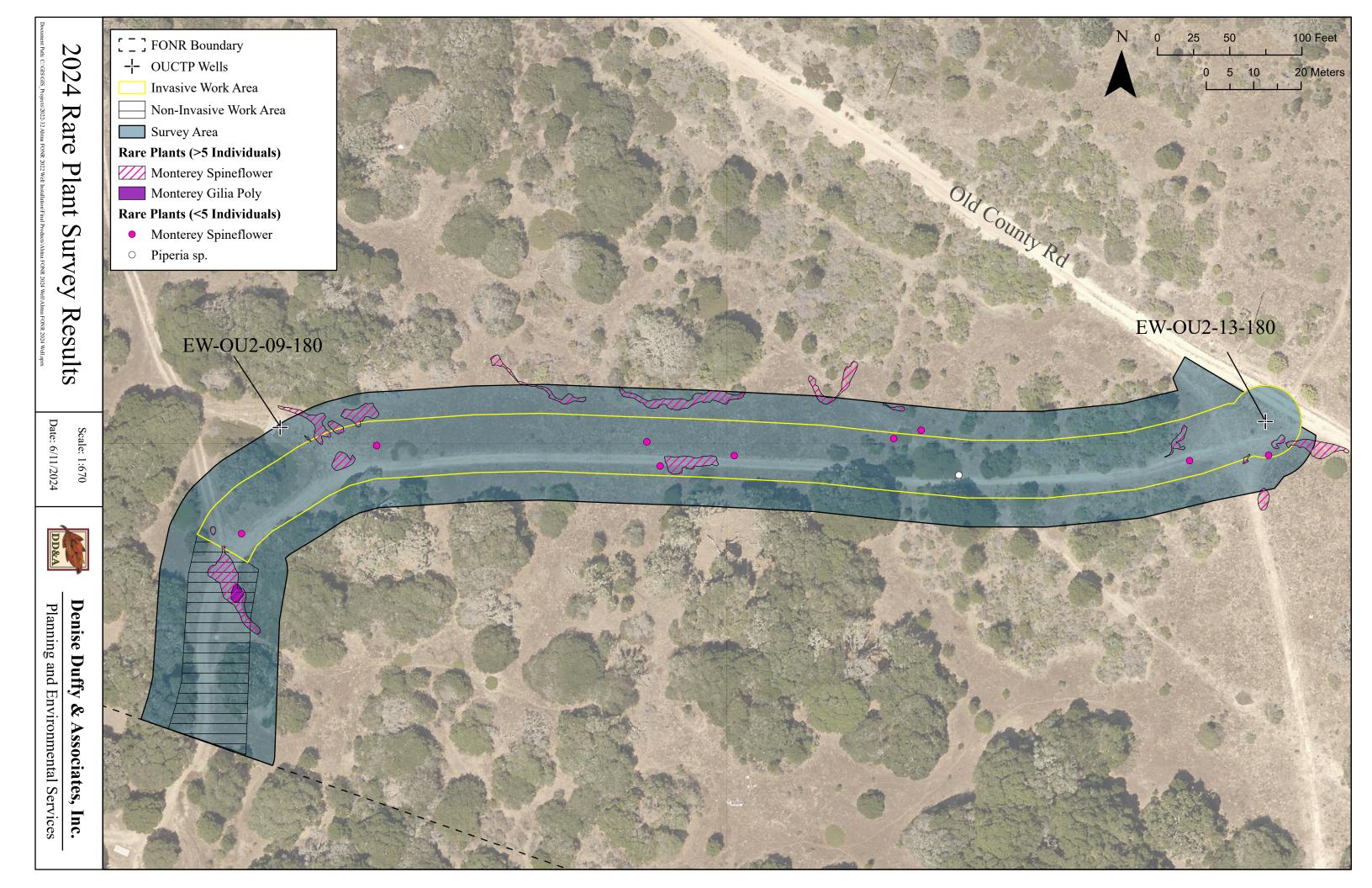
- No pets, firearms, or hunting are allowed.
- No fires are allowed. Report any smoke or open flame immediately to the Ahtna Field Supervisor. Keep firefighting equipment in good operating order and readily available.
- Clean up and report all hazardous material spills immediately.
- Do not discharge any water or drill cuttings into unapproved areas.
- Holes and trenches left at the end of each workday should be covered or escape ramps shall be built to allow wildlife to exit.
- Report trapped, injured, or dead wildlife to the DD&A Biologist.
- Keep all equipment either in approved work areas or travel corridors, or in approved staging/storage areas.
- Keep fluid spill containment and clean up materials readily available.

4. VERNAL POOLS/PONDS PRESE	NT	Yes	⊠ No	Flagged/Marked	
Location:					
Grid Numbers:					
Work Can Proceed in Pools/Ponds:		Yes		No	
Restrictions:					
5. VEGETATION REMOVAL					
_	Location:				
Manual Removal Needed	Location:				
Mechanical Removal Needed Location:					
Vegetation Removal Restrictions:					
(EDOCION CONCEDNO/CITE DE	CTOD ATIO	NT.			
• Following the well installation activiti			Lwill be restored as	plocaly as possible to its	
original condition by limited grading				hosely as possible to its	
7. SITE ACCESS:					
FONR access should be limited to the					
 Access to work areas shall be along ap 	proved travel co	orridors along Old	County Road.		
8. INVASIVE SPECIES:					
All equipment coming from off-site m	ust be dry-brus	hed prior to enteri	ng FONR to reduce t	the potential to spread non-	
native invasive plant species.	use of any oras	noo prier te cincin		no perominar se aproma men	
9. ADDITIONAL SITE CONCERNS					
 Matting to reduce the level of soil dist 	urbance may be	required to access	s the well installation	1 location.	
This checklist has been read, approved	. and signed	by the followi	ng:		
M. W. //.	., »- g •	, , , , , , , , , , , , , , , , , , ,			
DD&A Biologist:	_			Date:6/14/2024	
	D . VV			0/44/0004	
Ahtna Project Manager: <u>Holly</u>	Villon			Date: 6/14/2024	
Ahtna Field Supervisor: St	B SAR	<u>. </u>		Date: 6/14/2024	
	<u> </u>				
RRAC Riologist. Bart Kowalski	/			Data: 06/14/24	

FIELD OBSERVATION FORM – CTS/BLL

If a California tiger salamander (CTS) or black legless lizard (BLL) is found, notify Matthew Johnson (831-917-3242) who will coordinate with Bart Kowalski, the BRAC biologist. Only service approved biologist should fill out the CTS field observation form, and only service approved biologist can handle and move CTS out of the way. If CTS is encountered all work needs to stop until service approved biologist gets to the location and relocates the CTS. After completing this form attach a photograph of the specimen (if possible) and a map showing the location of the sighting, and return to Matt Johnson, who will forward to BRAC:

Mr. Bart Kov	valeki							
	3, Gigling Rd, Rm 101							
Monterey, CA 93944-5004 (831) 242-7918								
	(OE site, Range # etc)							
		Northin	g/Easting or					
Grid #		Approx	. Coordinates (ft)					
□ Well □ Vege	vity (check one or write Installation/Drilling tation clearance							
Weather:	Air Temp.	Wind	Sunny/Cloudy					
	1							
Depth if kno	own							
			cre specimen found, etc.): , condition, behavior etc.):					
	nes):							
Other Notes	•							
Disposition:	Found by	:						
2 is position.	Personnel	on Site:		·				
□ Obser	rved, released to same lo	ocation or adjac	ent habitat					
		•						
☐ Injure	ed or killed (placed in a Z	Ziploc or plastic	bag, and refrigerated)					
			pecimen and habitat in which f	ound)				



ATTACHMENT C OLD COUNTY ROAD DISTURBANCE FIGURE

ATTACHMENT D CONSTRUCTION PHASE BIOLOGICAL MONITORING LOG



Ahtna FONR Bio Monito	ring V1
Project	Ahtna FONR
ID	459989
Survey Date	06/17/2024
User	Matt Johnson
General Information	
Project Name	UC FONR OUCTP Extraction Wells
Project Number:	2022-32
Is this a Non-Work day?	No
Monitor Name	Matt Johnson
Time In	10:00 AM
Time Out	04:30 PM
Detailed Monitoring Activity	
Construction Activities Monitored	Delivery of four (4) bins for soil.
Log of Monitoring Activities	Installed staking to delineate the boundaries of the work area and of HMP species (Monterey spineflower). Ahtna contractors delivered two soil bins prior to contacting DD&A. Bins were installed on Old County Road. The second delivery truck got stuck in several locations and mats were installed to get the truck unstuck. Several areas outside of the survey boundaries were disturbed during the delivery of the second set of bins.

General Project Site Photo(s)



Staking and flagging denoting the boundary of Monterey spineflower populations.



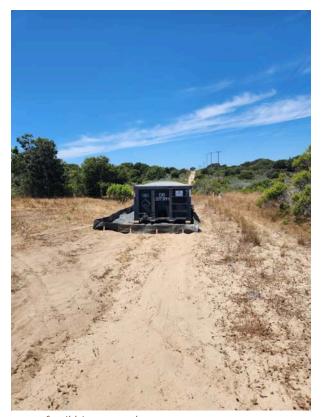
made with Wildnote Page 1 of 87



Staking and flagging denoting the boundary of Monterey spineflower populations.



Staking and flagging denoting the boundary of Monterey spineflower populations.



First set of soil bins staged.



made with Wildnote Page 2 of 87





Delivery of second set of soil bins.



Delivery of second set of soil bins.



Staking and flagging denoting the boundary of Monterey spineflower populations.



Second set of soil bins staged.



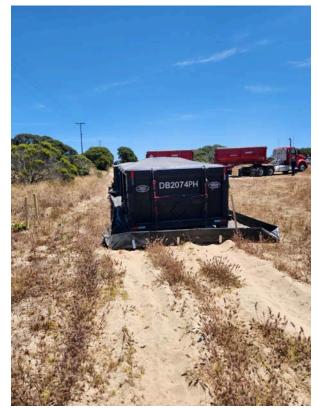
Delivery of second set of soil bins.



made with Wildnote Page 3 of 87



Delivery of second set of soil bins.



First set of soil bins staged.



Second set of Soil bins staged.



Disturbed area outside of survey boundary.



made with Wildnote Page 4 of 87



Truck stuck outside of survey boundaries.



Area disturbed outside of survey boundaries.



Delivery of second set of soil bins.

Additional Species Observed

Non-sensitive species

observed:

Sensitive species observed? No

Additional Notes

General Photos None

Ahtna FONR Bio Monitoring V1

Project	Ahtna FONR	
ID	458280	
Survey Date	06/18/2024	



made with Wildnote Page 5 of 87

User	Kim Ghadiri
General Information	
Project Name	UC FONR OUCTP Extraction Wells
Project Number:	2022-32
Is this a Non-Work day?	No
Monitor Name	
Time In	
Time Out	

Detailed Monitoring Activity	
Construction Activities Monitored	Material mobilization.
Log of Monitoring Activities	Conducted the HCL environmental training to all personnel on site. Monitored material mobilization. Surveyed for horned lizards on access route.

General Project Site Photo(s)



Documented Monterey spineflower flagged for avoidance to the maximum feasible



Documented Monterey spineflower flagged for avoidance to the maximum feasible



Documented matting installed under bins to reduce the level of soil disturbance.



Documented site conditions.



made with Wildnote Page 6 of 87



Documented mobilizing equipment onto the site.



Documented impacts from heavy equipment outside of the project boundary. DDA biologist monitored as staged material was relocated within the approved project boundary. DD&A has recommended that areas impacted outside of the project limit be restored to pre project contours.



Documented impacts from heavy equipment outside of the project boundary. DDA biologist monitored as staged material was relocated within the approved project boundary. DD&A has recommended that areas impacted outside of the project limit be restored to pre project contours.



Documented impacts from heavy equipment outside of the project boundary. DDA biologist monitored as staged material was relocated within the approved project boundary. DD&A has recommended that areas impacted outside of the project limit be restored to pre project contours.



nade with Wildnote Page 7 of 87



Documented piperia sp. caged and flagged for avoidance.



Documented matting installed under bins to reduce the level of soil disturbance.



Documented piperia sp. caged and flagged for avoidance.

Additional Species Observed

Non-sensitive species observed:

Sensitive species observed? No



Documented site conditions.



Documented matting installed under bins to reduce the level of soil disturbance.



made with Wildnote Page 8 of 87

General Photos None

Ahtna FONR Bio Monitoring V1	
Project	Ahtna FONR
ID	458602
Survey Date	06/19/2024
User	Kim Ghadiri
General Information	
Project Name	UC FONR OUCTP Extraction Wells
Project Number:	2022-32
Is this a Non-Work day?	No
Monitor Name	
Time In	
Time Out	

Detailed Monitoring Activity

Construction Activities Monitored Drilling at EW-OU2-13-180

Log of Monitoring Activities

Monitored drilling on site. Documented the fork lift driving outside of the approved project site to access materials on the trailer. DD&A advised project personnel to stay within the approved project boundary to the maximum extent feasible. DD&A mapped the limits of disturbance outside of the project boundary and mapped any spineflower occurrences observed in or directly adjacent to the disturbed area.

General Project Site Photo(s)



Documented site conditions.



Documented site conditions.



made with Wildnote Page 9 of 87



Documented spineflower flagging in good condition.



Documented spineflower flagging in good condition.



Documented piperia caged and flagged for avoidance.



Documented matting installed under bins to reduce the level of soil disturbance.



Documented piperia caged and flagged for avoidance.



Documented site conditions.



made with Wildnote Page 10 of 87



Documented materials staged along old county road.



Documented the fork lift driving outside of the approved project site to access materials on the trailer. DD&A advised project personnel to stay within the approved project boundary to the maximum extent feasible. DD&A mapped the limits of disturbance outside of the project boundary and mapped any spineflower occurrences observed in or directly adjacent to the disturbed area.



Secondary access route outside of the project boundary driven on/ disturbed during material mobilization yesterday.



Documented delivery of port a potties and placed within the project limit. No compliance issue to note.

Non-sensitive species

observed:

Sensitive species observed? No

Additional Notes

General Photos None

Ahtna FONR Bio Monitoring V1

	······································
Project	Ahtna FONR
ID	459097
Survey Date	06/20/2024
User	Jordan DePedro



made with Wildnote Page 11 of 87

General Information	
Project Name	UC FONR OUCTP Extraction Wells
Project Number:	2022-32
Is this a Non-Work day?	No
Monitor Name	Jordan DePedro
Time In	
Time Out	

Detaile	ed Mon	itoring	Activity
---------	--------	---------	----------

Construction Activities Monitored Drilling at EW-OU2-13-180

Log of Monitoring Activities

Conducted daily site monitoring and documented site conditions.

General Project Site Photo(s)



Documented piperia caging in good condition.



Documented spineflower flagging in good condition.



Documented piperia caging in good condition.



Documented site conditions.



made with Wildnote Page 12 of 87



Documented spineflower flagging in good condition.



Documented site conditions.



Documented site conditions.





Documented materials staged.



Documented spineflower flagging in good condition.

Non-sensitive species observed:

Sensitive species observed? No



made with Wildnote Page 13 of 87

General Photos None

Ahtna FONR Bio Monit	oring V1
Project	Ahtna FONR
ID	459411
Survey Date	06/21/2024
User	Kim Ghadiri
General Information	
Project Name	UC FONR OUCTP Extraction Wells
Project Number:	2022-32
Is this a Non-Work day?	No
Monitor Name	
Time In	
Time Out	

Detailed Monitoring Activity

Construction Activities

Drilling at EW-OU2-13-180.

Monitored

Daily monitoring and documenting site conditions.

General Project Site Photo(s)

Log of Monitoring Activities



Documented drilling activities.



Documented piperia michealii flagged for avoidance.



made with Wildnote Page 14 of 87



Documented no further impacts outside of project limits.



Documented spineflower flagged for avoidance.



Documented piperia sp. caged and flagged for avoidance.



Documented spineflower flagged for avoidance.



Documented piperia sp. caged and flagged for avoidance.



Documented site conditions.



made with Wildnote Page 15 of 87



Documented site conditions.

Additional Species Observed

Non-sensitive species

observed:

Sensitive species observed? No

Additional Notes

General Photos None

Ahtna	FONR Bio	Monitoring V1

Project	Ahtna FONR
ID	459610
Survey Date	06/22/2024
User	Jordan DePedro

l Information

Project Name UC FONR OUCTP Extraction Wells

Project Number: 2022-32

Is this a Non-Work day? No

Monitor Name Jordan DePedro

Time In

Time Out

Detailed Monitoring Activity

Construction Activities Drilling at EW-OU2-13-180. Monitored

Log of Monitoring Activities Conducted daily site check and documented site conditions.

General Project Site Photo(s)



made with Wildnote Page 16 of 87



Documented spineflower flagging in good condition.



Documented piperia caging in good condition.



Documented drilling.



Documented spineflower flagging in good condition.



Documented piperia caging in good condition.



Documented spineflower flagging in good condition.



made with Wildnote Page 17 of 87



Documented piperia flagging in good condition.



Documented site conditions.



Documented spineflower flagging in good condition.



Documented site conditions.

Non-sensitive species observed:

Sensitive species observed? No

Additional Notes

General Photos None

Ahtna FONR Bio Monitoring V1

Project Ahtna FONR ID 459910 Survey Date 06/24/2024 User Kim Ghadiri **General Information**

Project Name **UC FONR OUCTP Extraction Wells**

Project Number: 2022-32

Is this a Non-Work day? No



made with Wildnote Page 18 of 87 **Monitor Name**

Time In

Time Out

Detailed Monitoring Activity

Construction Activities

Continuing drilling at EW-OU2-13-180.

Monitored

Log of Monitoring Activities Daily monitoring.

General Project Site Photo(s)



Documented drilling activities.



Staking and flagging remain in place to denote HMP species boundaries.

Staking and flagging remain in place to denote HMP species boundaries.



Staking and flagging remain in place to denote HMP species boundaries.



Documented site conditions.



made with Wildnote Page 19 of 87



Staking and flagging remain in place to denote HMP species boundaries.

Non-sensitive species

observed:

Sensitive species observed? No

Additional Notes

General Photos None

Ahtna	FONR Bio	Monitoring V1
-------	----------	---------------

Project	Ahtna FONR
ID	460427
Survey Date	06/25/2024
User	Matt Johnson
General Information	
Project Name	UC FONR OUCTP Extraction Wells
Project Number:	2022-32
Is this a Non-Work day?	No
Monitor Name	Matt Johnson
Time In	11:45 AM
Time Out	

Time Out

Detailed Monitoring Activity	у
Construction Activities	Drilling of the well. Discussed project activities with Ahtna Field Supervisor. Drillers hit clay
Monitored	layer, slowing down progress. Likely they will have to remobolize the following 4 days off

layer, slowing down progress. Likely they will have to remobolize the following 4 days off to set well. Ahtna to let DDA know.

Log of Monitoring Activities Walked site and checked staking/flagging.

General Project Site Photo(s)



made with Wildnote Page 20 of 87



Staking and flagging remain in place to denote HMP species boundaries.



Staking and flagging remain in place to denote HMP species boundaries.



Site conditions

Non-sensitive species observed:

Sensitive species observed? No



made with Wildnote Page 21 of 87

General Photos None

Ahtna FONR Bio Monit	oring V1
Project	Ahtna FONR
ID	461714
Survey Date	06/26/2024
User	Matt Johnson
General Information	
Project Name	UC FONR OUCTP Extraction Wells
Project Number:	2022-32
Is this a Non-Work day?	No
Monitor Name	Matt Johnson
Time In	01:50 PM
Time Out	

Detailed Monitoring Activity

Construction Activities	
Monitored	

Well drilling.

Log of Monitoring Activities

Confirmed flagging is still in place for HMP species avoidance. Discussed schedule with Ahtna Field Supervisor. Drillers plan to work through the week to complete well site. Should be completed by Friday.

General Project Site Photo(s)



Site conditions.



Site conditions.



made with Wildnote Page 22 of 87





Site conditions. Site conditions.

Non-sensitive species

observed:

Sensitive species observed? No

Additional Notes

General Photos None

Ahtna FONR Bio Monitoring V1

Project Ahtna FONR
ID 463633
Survey Date 06/28/2024
User Kim Ghadiri

General Information

Project Name UC FONR OUCTP Extraction Wells

Project Number: 2022-32

Is this a Non-Work day? No

Monitor Name

Time In

Time Out

Detailed Monitoring Activity

Construction Activities

Installing well casing.

Monitored



General Project Site Photo(s)



Staking and flagging remain in place to denote HMP species boundaries.



Staking and flagging remain in place to denote HMP species boundaries.



Documented site conditions.



Documented installing well casing.





Documented site conditions.

Additional Species Observed



made with Wildnote Page 24 of 87 Sensitive species observed? No

Additional Notes

General Photos None

Ahtna FONR Bio Monitoring V1				
Project	Ahtna FONR			
ID	462263			
Survey Date	07/01/2024			
User	Matt Johnson			
General Information				
Project Name	UC FONR OUCTP Extraction Wells			
Project Number:	2022-32			
Is this a Non-Work day?	No			
Monitor Name	Matt Johnson			
Time In	11:00 AM			
Time Out				

Detailed Monitoring Activity

Construction Activities Monitored Discussed demobilization with Ahtna Field Supervisor Steve Bennet. Soil bins are still on site to be picked up next week and we'll Development next week.

Log of Monitoring Activities

General Project Site Photo(s)



Documented site conditions.



Ahtna to rake this area further to fill in holes.



made with Wildnote Page 25 of 87







Documented site conditions.

Non-sensitive species

observed:

Sensitive species observed? No

Additional Notes

General Photos None

Ahtna FONR Bio Monitoring V1

Project	Ahtna FONR
ID	463650
Survey Date	07/08/2024
User	Bibiana Carrazco

General Information

Project Name UC FONR OUCTP Extraction Wells

Project Number: 2022-32

Is this a Non-Work day? No

Monitor Name B. Carrazco

Time In

Time Out

Detailed Monitoring Activity

Construction Activities Delivery of water tank. Monitored

Log of Monitoring Activities Monitored delivery of the water tank to ensure the water tank was placed in non sensitive

areas within the project site.

General Project Site Photo(s)



made with Wildnote Page 26 of 87



Flagged Monterey spineflower polygon for avoidance.



Documented Monterey spineflower flagging in good condition.



Documented location of water tank.



Documented site conditions.

Non-sensitive species observed:

Sensitive species observed? No

Additional Notes

General Photos None

Ahtna FONR Bio Monitoring V1

Project	Ahtna FONR
ID	463899
Survey Date	07/09/2024
User	Bibiana Carrazco
General Information	
Project Name	UC FONR OUCTP Extraction Wells
Project Number:	2022-32
Is this a Non-Work day?	No



made with Wildnote Page 27 of 87

Monitor Name

B. Carrazco

Time In

Time Out

Detailed Monitoring Activity

Construction Activities Monitored Prepping site for groundwater well development and specific capacity testing.

Log of Monitoring Activities

Conducted site visit and documented site conditions.

General Project Site Photo(s)



Documented site conditions. Equipment staged within survey area.



Documented site activities. Equipment staged within survey area.



Documented site activities.



Documented site conditions.



made with Wildnote Page 28 of 87



Documented site conditions.



Documented Piperia flagging in good condition.



Documented Monterey spineflower flagging in good condition.

Non-sensitive species

observed:

Sensitive species observed? No

Additional Notes

General Photos None

Ahtna FONR Bio Monitoring V1			
Project	Ahtna FONR		
ID	464439		
Survey Date	07/10/2024		
User	Bibiana Carrazco		
General Information			
Project Name	UC FONR OUCTP Extraction Wells		
Project Number:	2022-32		
Is this a Non-Work day?	No		



made with Wildnote Page 29 of 87

Monitor Name

Time In

Time Out

Detailed Monitoring Activity

Construction Activities Monitored Groundwater well development and specific capacity testing.

Log of Monitoring Activities

Conducted daily site visit and documented site conditions.

General Project Site Photo(s)



Documented site activities. Flagging of Monterey spineflower area in good condition.



Documented site activities. Flagging of Monterey spineflower area in good condition.



Documented site activities. Flagging of Monterey spineflower area in good condition.

Additional Species Observed

Non-sensitive species

observed:

Sensitive species observed? No

Additional Notes

General Photos None



made with Wildnote Page 30 of 87

Ahtna FONR Bio Monitoring V1			
Project	Ahtna FONR		
ID	464822		
Survey Date	07/11/2024		
User	Jordan DePedro		
General Information			
Project Name	UC FONR OUCTP Extraction Wells		
Project Number:	2022-32		
Is this a Non-Work day?	No		
Monitor Name	Jordan DePedro		
Time In			
Time Out			

Detailed Monitoring Activity

Construction Activities Monitored Groundwater well development and specific capacity testing.

Log of Monitoring Activities

Conducted daily site monitoring and documented site conditions.

General Project Site Photo(s)



Documented Monterey spineflower flagging in good condition.



Documented Monterey spineflower flagging in good condition.



made with Wildnote Page 31 of 87



Documented Piperia caging and flagging in good condition.



Documented site conditions.



Documented Monterey spineflower flagging in good condition.



Documented Piperia caging and flagging in good condition.



Documented Monterey spineflower flagging in good condition.



Documented site conditions.



made with Wildnote Page 32 of 87







Documented site conditions.

Non-sensitive species

observed:

Sensitive species observed? No

Additional Notes

General Photos None

Ahtna FONR Bio Monitoring V1

Project	Ahtna FONR
ID	465349
Survey Date	07/12/2024
User	Jordan DePedro

General Information

Project Name UC FONR OUCTP Extraction Wells

Project Number: 2022-32

Is this a Non-Work day? No

Monitor Name Jordan DePedro.

Time In

Time Out

Detailed Monitoring Activity

Construction Activities Groundwater well development and specific capacity testing. Monitored

Log of Monitoring Activities Conducted daily site monitoring and documented site conditions.

General Project Site Photo(s)



nade with Wildnote Page 33 of 87



Documented Monterey spineflower flagging in good condition.



Documented Piperia caging and flagging in good condition.



Documented site conditions.



Documented Monterey spineflower flagging in good condition.



Documented Piperia caging and flagging in good condition.



Documented Monterey spineflower flagging in good condition.



made with Wildnote Page 34 of 87



Documented site conditions.



Documented site conditions.



Documented Monterey spineflower flagging in good condition.



Documented oaks trimmed with permission from Joe Miller, Director, UC Santa Cruz FONR. Branches to be hauled off site.

Non-sensitive species observed:

Sensitive species observed? No

Additional Notes

General Photos None

Ahtna FONR Bio Monitoring V1

Project Ahtna FONR
ID 467791
Survey Date 07/17/2024
User Kim Ghadiri

General Information

Project Name UC FONR OUCTP Extraction Wells

Project Number: 2022-32



made with Wildnote Page 35 of 87

Is this a Non-Work day?	No
Monitor Name	
Time In	
Time Out	

Detailed Monitoring Activity	
Construction Activities Monitored	Vac trucks removing materials from bins.
Log of Monitoring Activities	Daily monitoring during work. Documented site conditions.

General Project Site Photo(s)



Documented site conditions.



Documented area previously impacted outside of the project limit has been raked and restored to pre project contours.

Additional Species Observed	
Non-sensitive species observed:	
Sensitive species observed?	No
Additional Notes	
General Photos	None

Project	Ahtna FONR
ID	470634
Survey Date	07/30/2024
User	Jordan DePedro
General Information	
Project Name	UC FONR OUCTP Extraction Wells
Project Number:	2022-32
Is this a Non-Work day?	No
Monitor Name	Jordan DePedro
Time In	
Time Out	



made with Wildnote Page 36 of 87

Detailed Monitoring Activity

Construction Activities Bin removal using the Old County Road access route.

Monitored

Log of Monitoring Activities Conducted daily monitoring and documented site conditions.

General Project Site Photo(s)



Documented site conditions.



Documented truck performing bin removal.



Documented site conditions.



Documented two bins have been removed.



made with Wildnote Page 37 of 87



Documented two bins still need to be removed.

Additional Species Observed

Non-sensitive species

observed:

Sensitive species observed? No

Additional Notes

General Photos None

Ahtna FONR Bio Monitoring V1

Project Ahtna FONR

ID 471125

Survey Date 07/31/2024

User Kim Ghadiri

General Information

Project Name UC FONR OUCTP Extraction Wells

Project Number: 2022-32

Is this a Non-Work day? No

Monitor Name

Time In

Time Out

Detailed Monitoring Activity

Construction Activities Removal of the remaining bins using the Old County Road access route. The water tank still needs to be removed from the project site.

Log of Monitoring Activities Conducted daily monitoring and documented site conditions.

General Project Site Photo(s)



nade with Wildnote Page 38 of 87



Documented spineflower flagging in good condition.



Documented spineflower flagging in good condition.



Documented the water tank that still needs to be removed from the project site.

Non-sensitive species observed:



Documented Piperia flagging in good condition.



Documented removal of all bins using the Old County Road access route. The water tank still needs to be removed.



made with Wildnote Page 39 of 87

Sensitive species observed? No

Additional Notes

General Photos None

A	htna l	FONR	Bio I	Moni	toring	V1

Project Ahtna FONR ID 473387

Survey Date 08/08/2024

User Kim Ghadiri

General Information

Project Name UC FONR OUCTP Extraction Wells

Project Number: 2022-32

Is this a Non-Work day? No

Reason for Non-Work:

Other reason for Non-Work

day:

Monitor Name

Time In

Time Out

Detailed Monitoring Activity

Construction Activities

Monitored

Removal of the water tank.

Log of Monitoring Activities

Daily monitoring during work.

General Project Site Photo(s)



Documented water tank is still on site.



Documented spineflower flagging

Additional Species Observed

Non-sensitive species

observed:

Sensitive species observed? No

Sensitive Species Details 1



made with Wildnote Page 40 of 87

Sensitive Species	
Other Species	
Sensitive Species Notes	
CNDDB filled out?	
Additional Notes	

Ahtna FONR Bio Monitoring V1		
Project	Ahtna FONR	
ID	474113	
Survey Date	08/09/2024	
User	Jordan DePedro	
General Information		
Project Name	UC FONR OUCTP Extraction Wells	
Project Number:	2022-32	
Is this a Non-Work day?	No	
Monitor Name		
Time In		
Time Out		

Detailed Monitoring Activity

Construction Activities Monitored

General Photos

No work on site.

None

Log of Monitoring Activities

Documented water tank was removed.

General Project Site Photo(s)



Documented red water tank removed.



Documented site conditions.



made with Wildnote Page 41 of 87



Documented site conditions.



Documented site conditions.

Non-sensitive species observed:

Sensitive species observed? No

Additional Notes

General Photos None

Ahtna FONR Bio Monitoring V1

Project	Ahtna FONR
ID	480698
Survey Date	09/04/2024
User	Teresa Echevarria
General Information	

UC FONR OUCTP Extraction Wells Project Name

Project Number: 2022-32

Is this a Non-Work day? No

Monitor Name Teresa Echevarria and Kimiya Ghadiri

Time In

Time Out

Detailed Monitoring Activity

Construction Activities Mobilization and staging of equipment. Some excavating and scraping of soil along road Monitored within project boundaries.

Performed employee education, conducted site visit, staked previously unmarked Log of Monitoring Activities

spineflower areas near north edges of site, and monitored during initial mobilization and

staging of equipment.

General Project Site Photo(s)



Page 42 of 87



Staking for spineflower north of road/trench alignment in good condition.



Staging of equipment and staking for spineflower on north side of road/trench alignment remains in good condition. Discussed with Paul Marsden, Ahtna Site Superintendent, that equipment may be too close to staking and that equipment should be staged closer to the road/trench alignment.



Staking for spineflower remains in good condition on the north side of road/trench alignment.



Staking for spineflower remains in good condition on the north side of road/trench alignment.



Staking for spineflower and gilia remains in good condition along road near EW-OU2-09-180.



Piperia netting remains in good condition on the north side of road/trench alignment.



made with Wildnote Page 43 of 87



Piperia netting remains in good condition along south side of road and pipeline alignment.



Spineflower staking remains in good condition near EW-OU2-13-180.



Staking for spineflower remains in good condition near EW-OU2-13-180

Non-sensitive species observed:

Sensitive species observed? No

Additional Notes

General Photos



made with Wildnote Page 44 of 87



Pipes staged adjacent to access road and pipeline installation location within limits of construction.



Pre-construction site photo near EW-OU2-13-180. Downed stakes were corrected (see above photos), site remains in compliance.



Site conditions near EW-OU2-13-180.



Staging of pipes along north side of road/trench alignment closer to EW-OU2-09-180 within limits of construction.



Pre-construction site photo near EW-OU2-09-180. Downed stakes were corrected (see above photos), site remains in compliance.



Initial construction activities mobilizing equipment and transporting pipes into the site.



made with Wildnote Page 45 of 87



Pipes staged adjacent to access road and pipeline installation location within limits of construction.

Ahtna FONR Bio Monitoring V1		
Project	Ahtna FONR	
ID	480831	
Survey Date	09/05/2024	
User	Teresa Echevarria	
General Information		
Project Name	UC FONR OUCTP Extraction Wells	
Project Number:	2022-32	
Is this a Non-Work day?	No	
Monitor Name	Teresa Echevarria	
Time In		
Time Out		

Detailed Monitoring Activity	
Construction Activities Monitored	Installation of well vault near EW-OU2-13-180.
Log of Monitoring Activities	Conducted site visit and cleared road and areas for ground disturbance. Staking and protective fencing remains in good condition. There are no compliance issues to note.

General Project Site Photo(s)



made with Wildnote Page 46 of 87



Staking for spineflower near EW-OU2-13-180 in good condition.



Piperia staking on south side of road/trench alignment remains in good condition.



Staking for spineflower on north side of road/trench alignment in good condition.



Staking for spineflower near EW-OU2-13-180 in good condition.



Piperia staking on north side of road/trench alignment remains in good condition.



Staking for spineflower on north side of road/trench alignment in good condition.



made with Wildnote Page 47 of 87



Staking for spineflower north of road/trench alignment in good condition.



Staking for gilia and spineflower near EW-OU2-09-180 in good condition.

Non-sensitive species observed:

Sensitive species observed? No

Additional Notes

General Photos



Well vault site prior to excavation.



Site conditions along road/pipeline installation location.



made with Wildnote Page 48 of 87



Staging of pipes on north side of road/trench alignment within limits of construction.

within limits of construction.	
Ahtna FONR Bio Monito	oring V1
Project	Ahtna FONR
ID	481256
Survey Date	09/06/2024
User	Teresa Echevarria
General Information	
Project Name	UC FONR OUCTP Extraction Wells
Project Number:	2022-32
Is this a Non-Work day?	No
Monitor Name	Teresa Echevarria
Time In	
Time Out	

Detailed Monitoring Activity	
Construction Activities Monitored	Excavating for well vault and installation of well vault.
Log of Monitoring Activities	Conducted site visit and monitored construction activities. There were three areas of disturbance off-road along Old County Rd which are documented here. Additional action will be taken post construction to return area to prior state and additional flagging will be placed in these areas. As per request, replaced and defined environmentally sensitive areas (ESA) with new staking and flagging connecting stakes.

General Project Site Photo(s)



made with Wildnote Page 49 of 87



Staking for spineflower north of road/trench alignment prior to restaking and flagging.



Staking for spineflower and gilia near EW-OU2-09-180 prior to repairing and replacing.



Staking for spineflower remains in good condition north of road/trench alignment.



One area of disturbance off of Old County Rd where a vehicle backed into vegetation. This was discussed with crew and reemphasized that vehicles can not drive off access road. This area is now staked.



made with Wildnote Page 50 of 87



A second area of disturbance off of Old County Rd. This area is now staked.



Spineflower area north of trench alignment after restaking and flagging.



Third area of disturbance off of Old County Rd. This area is now staked.



Gilia and spineflower area near EW-OU2-09-180 after restaking and defining.

Non-sensitive species observed:

Sensitive species observed? No

Additional Notes

General Photos



made with Wildnote Page 51 of 87



Site conditions near EW-OU2-13-180.



Access road conditions.

Ahtna FONR Bio Monito	ring V1
Project	Ahtna FONR
ID	481662
Survey Date	09/09/2024
User	Teresa Echevarria
General Information	
Project Name	UC FONR OUCTP Extraction Wells
Project Number:	2022-32
Is this a Non-Work day?	No
Monitor Name	Tess Echevarria
Time In	
Time Out	
Detailed Monitoring Activity	
Construction Activities Monitored	Trenching and installation of pipes.
Log of Monitoring Activities	Conducted site visit and monitored construction activities. Discussed plans to mitigate impacts to surrounding vegetation of project site with Ahtna.

General Project Site Photo(s)



made with Wildnote Page 52 of 87



Piperia flagging on the southside of road/trench alignment in good condition.



Spineflower flagging north of the road/trench alignment in good condition.



Piperia flagging on the northside of the road/trench alignment in good condition.



Gilia and spineflower flagging on the west side of project near EW-OU2-09-180 in good condition.



made with Wildnote Page 53 of 87



Spineflower flagging north of the road/trench alignment in good condition.



Spineflower flagging north of the road/trench alignment in good condition.

Non-sensitive species observed:

Sensitive species observed?

Additional Notes

No

Staking was put up along old county road in Gilia areas where trucks previously pulled off the road. Additional precaution was taken around work areas to avoid vegetation removal if possible.

General Photos



made with Wildnote Page 54 of 87



Construction activities and trench conditions on road before reaching piperia area.



Site conditions near EW-OU2-13-180.



Site conditions, staging of equipment on the north side of road/trench alignment. Construction is still avoiding spineflower areas and remains in compliance with the Habitat Checklist (HCL).



Site conditions along road/trench alignment.

Ahtna FONR Bio Monitoring V1

Alitia i Olik bit	that ONL Dio Monitoring VI	
Project	Ahtna FONR	
ID	481989	



made with Wildnote Page 55 of 87

Survey Date	09/10/2024
User	Kim Ghadiri
General Information	
Project Name	UC FONR OUCTP Extraction Wells
Project Number:	2022-32
Is this a Non-Work day?	No
Monitor Name	Tess Echevarria
Time In	
Time Out	

Detailed Monitoring Activity	
Construction Activities Monitored	Trenching and installation of pipe.
Log of Monitoring Activities	Conducted site visit and monitored trenching. All staking remains in good condition. Communicated to Derek and Paul that crew may be going out of project bounds in the meadow area and both stated they would emphasize to the crew to stay closer to the road.

General Project Site Photo(s)



Staging of equipment. Spineflower fencing in good condition.



Staging of equipment and soil stockpile.



made with Wildnote Page 56 of 87



Equipment staging and vegetation disturbance. Spineflower fencing in good condition however fencing is far out of project bounds and vehicles should not be driving this far out.



Vegetation disturbance near spineflower fencing project crews need to stay closer to trench area.



Trench conditions.



Site conditions. Heavy equipment should avoid driving this



made with Wildnote Page 57 of 87



Spineflower fencing in good condition.



Trench conditions.



Piperia fencing in good condition.



Piperia fencing in good condition.



made with Wildnote Page 58 of 87



Spineflower fencing in good condition.



Spineflower fencing in good condition.



Gilia and spineflower fencing in good condition.

Non-sensitive species

observed:

Sensitive species observed? No

Additional Notes

General Photos None

Ahtna FONR Bio Monitoring V1

Project	Ahtna FONR	
ID	483284	
Survey Date	09/10/2024	



made with Wildnote Page 59 of 87

User	Teresa Echevarria
General Information	
Project Name	UC FONR OUCTP Extraction Wells
Project Number:	2022-32
Is this a Non-Work day?	No
Monitor Name	
Time In	
Time Out	

Detailed Monitoring Activity	Detailed	Monitoring	Activity
-------------------------------------	----------	------------	----------

Construction Activities Monitored Continued trenching along road.

Log of Monitoring Activities

Conducted site visit and monitored construction activities.

General Project Site Photo(s)



Construction activities north of road/trench alignment. Noted to Paul Marsden, Ahtna Superintendent, that equipment should try to stay closer to the road though they still remain outside spineflower fencing.



Some tracks almost into spineflower area. As noted above, discussed with Paul Marsden equipment should stay closer to the road.



made with Wildnote Page 60 of 87



Site conditions north of the road/trench alignment. Equipment remained outside of spineflower fencing and according to Paul Marsden within project boundaries, though it was explained again it would be best to try and stay as close to the road/trench alignment as possible.



Windrow of dirt from trench along south side of road/trench alignment.

Non-sensitive species observed:

Sensitive species observed? No

Additional Notes

General Photos None

Ahtna FONR Bio Monitoring V1

Project	Ahtna FONR
ID	482250
Survey Date	09/11/2024
User	Teresa Echevarria
General Information	
Project Name	UC FONR OUCTP Extraction Wells
Project Number:	2022-32
Is this a Non-Work day?	No
Monitor Name	Tess Echevarria
Time In	
Time Out	

Detailed Monitoring Activity



made with Wildnote Page 61 of 87

Log of Monitoring Activities

Conducted site visit and monitored construction activities.

General Project Site Photo(s)



Gilia and spineflower fencing on west side of project in good condition.



Spineflower fencing north of the road/trench alignment in good condition.



Spineflower fencing north of the road/trench alignment in good condition.



Spineflower fencing north of the road/trench alignment in good condition.



made with Wildnote Page 62 of 87



Spineflower fencing north of the road/trench alignment in good condition.



Fencing where vehicles previously went off road along Old County Rd in good condition.



A second spot for fencing for previously disturbed areas along Old County Road in good condition.

Non-sensitive species

observed:

Sensitive species observed? No

Additional Notes

General Photos None

Ahtna FONR Bio Monitoring V1		
Project	Ahtna FONR	
ID	482866	
Survey Date	09/12/2024	
User	Teresa Echevarria	
General Information		
Project Name	UC FONR OUCTP Extraction Wells	
Project Number:	2022-32	
Is this a Non-Work day?	No	



made with Wildnote Page 63 of 87

Teresa Echevarria **Monitor Name** Time In Time Out

Detailed Monitoring Activity

Construction Activities Monitored

Testing and pressurizing pipe for installation.

Log of Monitoring Activities

Conducted site visit and made changes to previous fencing. In order to curb traffic into area around spineflower, staking was moved out 10 ft. Fencing was then connected with rope to avoid future disturbance. Discussed with Paul Marsden, Ahtna Superintendent, that equipment being staged outside the fencing would need to be moved closer to the road or elsewhere.

General Project Site Photo(s)



New fencing to the north of the road/trench alignment was placed 20ft from the road to avoid further disturbance.



New fencing to the north of road/trench alignment.



Staging of equipment north of the road/trench alignment. Equipment will be moved elsewhere as stated by Paul Marsden, Ahtna Superintendent.



Page 64 of 87



Spineflower staking on the northwest side of project in good condition.



Gilia and spineflower staking on the west side of project in good condition.

Non-sensitive species observed:



made with Wildnote Page 65 of 87

Sensitive species observed? No
Additional Notes

Additional Notes		
General Photos	None	

Ahtna FONR Bio Monitoring V1		
Project	Ahtna FONR	
ID	485729	
Survey Date	09/16/2024	
User	Teresa Echevarria	
General Information		
Project Name	UC FONR OUCTP Extraction Wells	
Project Number:	2022-32	
Is this a Non-Work day?	No	
Monitor Name		
Time In		
Time Out		

Detailed Monitoring Activity	
Construction Activities Monitored	Filling of trench along west side of project
Log of Monitoring Activities	Conducted site visit and monitored fencing for compliance. All ESA fencing remains in good condition.

General Project Site Photo(s)



Spineflower fencing north of road/trench alignment in good condition.



Gilia and spineflower fencing near EW-OU2-09-180 in good condition.



made with Wildnote Page 66 of 87



Spineflower fencing north of road/trench alignment in good condition.





Spineflower fencing north of road/trench alignment in good condition.



Piperia netting on north side of road/trench alignment in good condition.



made with Wildnote Page 67 of 87



Piperia netting on south side of road/trench alignment in good condition.

Non-sensitive species

observed:

Sensitive species observed? No

Additional Notes

General Photos None

Ahtna FONR Bio Monitoring V1	Ahtna	FONR	Bio Mo	onitorir	ng V1
------------------------------	-------	-------------	--------	----------	-------

Project Ahtna FONR

ID 490624

Survey Date 09/17/2024

User Teresa Echevarria

General Information

Project Name UC FONR OUCTP Extraction Wells

Project Number: 2022-32

Is this a Non-Work day? No

Monitor Name TE

Time In

Time Out

Detailed Monitoring Activity

Construction Activities Trenching for well vaults along trench alignment. Monitored



made with Wildnote Page 68 of 87

General Project Site Photo(s)



Well vault along trench alignment viewing west to east.

Additional Species Observed

Non-sensitive species

observed:

Sensitive species observed? No

Additional Notes

General Photos None

Ahtna	FONR	Rio N	/lonitorin	σ V1
Anthia		יו טוט וע		s v i

Project	Ahtna FONR
ID	490621
Survey Date	09/20/2024
User	Teresa Echevarria
General Information	
Project Name	UC FONR OUCTP Extraction Wells
Project Number:	2022-32
Is this a Non-Work day?	No
Monitor Name	TE
Time In	
Time Out	

Detailed Monitoring Activity

Construction Activities Backfilling of trench post-installation of pipe. Monitored Log of Monitoring Activities Conducted site visit to monitor construction activities and backfilling of trench. All fencing

remains in compliance.

General Project Site Photo(s)



made with Wildnote Page 69 of 87



Site conditions viewing east to west. Fencing in good condition north of the road/trench alignment.

Non-sensitive species

observed:

Sensitive species observed? No

Additional Notes

General Photos None

Ahtna FONR Bio	Monitoring V1
----------------	---------------

Project	Ahtna FONR
ID	485247
Survey Date	09/23/2024
User	Teresa Echevarria
General Information	
Project Name	UC FONR OUCTP Extraction Wells
Project Number:	2022-32
Is this a Non-Work day?	No
Monitor Name	
Time In	
Time Out	

Detailed Monitoring Activity

Construction Activities Setting of vaults.
Monitored

Log of Monitoring Activities Conducted site visit and monitored ESA fencing. All fencing and project activities remain in

compliance.

General Project Site Photo(s)



made with Wildnote Page 70 of 87



Soil stockpile location to the north of the road.



Piperia netting south of the road in good condition.



Site conditions near EW-OU2-09-180. All fencing in good condition.



Fencing for spineflower near EW-OU2-13-180 in good condition.



made with Wildnote Page 71 of 87



Fencing for spineflower near EW-OU2-13-180 in good condition.

Additiona	l Species (C	bserved	
-----------	-------------	---	---------	--

Non-sensitive species

observed:

Sensitive species observed? No

Additional Notes

General Photos None

AL. FOND D' M.	
Ahtna FONR Bio Monito	
Project	Ahtna FONR
ID	486828
Survey Date	09/27/2024
User	Teresa Echevarria
General Information	
Project Name	UC FONR OUCTP Extraction Wells
Project Number:	2022-32
Is this a Non-Work day?	Yes
Reason for Non-Work:	Other
Other reason for Non-Work day:	
Monitor Name	Tess Echevarria
Time In	
Time Out	
Detailed Monitoring Activity	
Construction Activities Monitored	Post construction monitoring.

Conducted site visit to monitor seed bank restoration.



Log of Monitoring Activities



made with Wildnote Page 72 of 87



Site conditions near EW-OU2-13-180.



All fencing on the north side of the road/trench alignment in good condition.



Site conditions near Piperia netting. Netting south of the road and north of the road remain in good condition.

Non-sensitive species observed:



Site conditions viewing west to east.



Gilia fencing near EW-OU2-09-180 in good condition.



made with Wildnote Page 73 of 87

Sensitive species observed? No

Additional Notes

General Photos None

Ahtna FONR Bio Monitoring V1	
Project	Ahtna FONR
ID	487681
Survey Date	10/01/2024
User	Teresa Echevarria
General Information	
Project Name	UC FONR OUCTP Extraction Wells
Project Number:	2022-32
Is this a Non-Work day?	No
Monitor Name	Tess Echevarria
Time In	
Time Out	

Construction Activities Monitored Continued electrical work and transporting wire to project site. Monitored Conducted site visit and monitored construction activities. All fencing and work remains in compliance.

General Project Site Photo(s)



Fencing/flagging in good condition north of the road.



Piperia fencing north of the road in good condition.

Additional Species Observed	
Non-sensitive species observed:	
Sensitive species observed?	No
Additional Notes	
General Photos	None



made with Wildnote Page 74 of 87

Ahtna FONR Bio Monitoring V1		
Project	Ahtna FONR	
ID	491581	
Survey Date	10/14/2024	
User	Teresa Echevarria	
General Information		
Project Name	UC FONR OUCTP Extraction Wells	
Project Number:	2022-32	
Is this a Non-Work day?	No	
Monitor Name	Tess Echevarria	
Time In		
Time Out		

Detailed Monitoring Activity	
Construction Activities Monitored	Electrical work within well vaults.
Log of Monitoring Activities	Conducted site visit and checked on construction activities. At the time I visited only electrical crew were on site. All fencing is in good condition and project remains in compliance

General Project Site Photo(s)



Site conditions where electrical work was being conducted near EW-OU2-09-180.



Fencing near EW-OU2-09-180 in good condition.



made with Wildnote Page 75 of 87



Fencing north of the road/trench alignment in good condition.



All Piperia netting in good condition.



All fencing near EW-OU2-13-180 in good condition.

Non-sensitive species

observed:

Sensitive species observed? No

Additional Notes

General Photos None

Ahtna FONR Bio Monitoring V1		
Project	Ahtna FONR	
ID	495672	
Survey Date	10/28/2024	
User	Teresa Echevarria	
General Information		
Project Name	UC FONR OUCTP Extraction Wells	
Project Number:	2022-32	
Is this a Non-Work day?	No	



made with Wildnote Page 76 of 87

Monitor Name TE
Time In

Time Out

Detailed Monitoring Activity

Construction Activities Monitored Mobilization of crews at EW-OU2-13-180.

Log of Monitoring Activities

Conducted site visit and monitored mobilization.

General Project Site Photo(s)



Gilia fencing south of the road near EW-OU2-09-180 in good condition.



All fencing north of the road in good condition.



Fencing north of the road near EW-OU2-13-180 in good condition.



Fencing in good condition near EW-OU2-13-180.





Fencing in good condition near EW-OU2-13-180.

Additional Species Observed

Non-sensitive species

observed:

Sensitive species observed? No

Additional Notes

General Photos None

Ahtna	FONR BIO	Monitori	ng V1

Project	Ahtna FONR
ID	496192
Survey Date	10/29/2024
User	Teresa Echevarria

General Information

Project Name UC FONR OUCTP Extraction Wells

Project Number: 2022-32

Is this a Non-Work day? No

Monitor Name

Time In

Time Out

Detailed Monitoring Activity

Construction Activities Construction activities at EW-OU2-13-180. Monitored

Log of Monitoring Activities Conducted daily site check and monitored construction activities for compliance. Crews

managed to get trailer out of sand and continued work at EW-OU2-13-180. Fencing remains in good condition and no issues to note.

General Project Site Photo(s)



nade with Wildnote Page 78 of 87



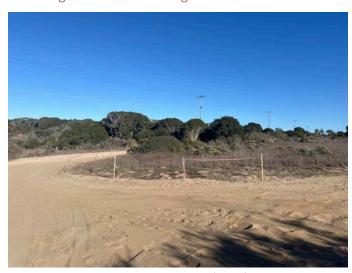
Gilia fencing near EW-OU2-09-180 in good condition.



Fencing near EW-OU2-13-180 in good condition.



All fencing north of the road in good condition.



Fencing near EW-OU2-13-180 in good condition.

Non-sensitive species observed:

Sensitive species observed? No

Additional Notes

General Photos None

Ahtna FONR Bio Monitoring V1

Project Ahtna FONR

ID 496391

Survey Date 10/30/2024

User Teresa Echevarria

General Information

Project Name UC FONR OUCTP Extraction Wells

Project Number: 2022-32

Is this a Non-Work day? No



made with Wildnote Page 79 of 87

ΤE **Monitor Name** Time In

Time Out

Detailed Monitoring Activity

Construction Activities Monitored

Continued electrical work at EW-OU2-13-180 and EW-OU2-09-180.

Log of Monitoring Activities

Conducted site visit to check condition of fencing and monitor construction activities.

General Project Site Photo(s)



Gilia fencing near EW-OU2-09-180 in good condition.



Spineflower fencing north of the road in good condition.



Spineflower fencing north of the road near EW-OU2-09-180 in good condition.



Piperia fencing south of the road in good condition.





Spineflower fencing north of the road near EW-OU2-13-180 in good condition.



Spineflower fencing east of EW-OU2-13-180 in good condition.

Non-sensitive species

observed:

Sensitive species observed? No

Additional Notes

General Photos None

Ahtna FONR Bio Monitoring V1

Project Ahtna FONR ID 498574 Survey Date 11/06/2024

User Teresa Echevarria

General Information

UC FONR OUCTP Extraction Wells Project Name

2022-32 Project Number:

Is this a Non-Work day? Yes

Reason for Non-Work: Other

Other reason for Non-Work day:

Crew not onsite

Monitor Name ΤE

Time In

Time Out

Detailed Monitoring Activity

Construction Activities Monitored

N/A

Log of Monitoring Activities

Conducted site visit to monitor fencing still in place for the remainder of project.

General Project Site Photo(s)



Page 81 of 87















made with Wildnote Page 82 of 87



Additional Species Observed

Non-sensitive species observed:

Sensitive species observed? No

Additional Notes

General Photos None

Ahtna FONR Bio Monitoring V1

Project Ahtna FONR ID 501783 Survey Date 11/13/2024

User Teresa Echevarria

General Information

Project Name UC FONR OUCTP Extraction Wells

Project Number: 2022-32

Is this a Non-Work day? No

Monitor Name

Time In

Time Out

Detailed Monitoring Activity

Construction Activities

Monitored

Log of Monitoring Activities Monitored completion of project and began to cleanup staking

General Project Site Photo(s) None

Additional Species Observed

Non-sensitive species

observed:

Sensitive species observed? No

Additional Notes



made with Wildnote Page 83 of 87

Ahtna FONR Bio Monitoring V1	
Project	Ahtna FONR
ID	501784
Survey Date	11/15/2024
User	Teresa Echevarria
General Information	
Project Name	UC FONR OUCTP Extraction Wells
Project Number:	2022-32
ls this a Non-Work day?	No
Monitor Name	
Time In	
Time Out	

Detailed Monitoring Activity

Construction Activities

Monitored

Log of Monitoring Activities Monitored completion of monitoring and cleaned up staking.

General Project Site Photo(s)



Conditions after project along road connecting EW-OU2-13-180 and EW-OU2-09-180.



Conditions of spineflower area in meadow north of road connecting EW-OU2-13-180 and EW-OU2-09-180 after project.





Conditions of spineflower area north of road connecting EW-OU2-13-180 after project.



Conditions of meadow north of the road near spineflower area after project.



Conditions south of the road connecting EW-OU2-13-180 and EW-OU2-09-180 near piperia staking after project.



Conditions of spineflower area near EW-OU2-09-180 north of the road after project.



Conditions south of the road connecting EW-OU2-13-180 and EW-OU2-09-180 after project.



Conditions near EW-OU2-13-180 after project.



made with Wildnote Page 85 of 87



Conditions near EW-OU2-13-180 after project.



Piperia area south of the road after the project.



Conditions at EW-OU2-13-180



Conditions of Gilia area near EW-OU2-09-180 after project.



Conditions of Gilia area after the project.





made with Wildnote Page 86 of 87









Additional Species Observed

Non-sensitive species observed:

Sensitive species observed? No

Additional Notes

General Photos None



made with Wildnote Page 87 of 87

ATTACHMENT E PHOTO JOURNAL



Photo 1. EW-OU2-13-180 location facing northeast, before installation.



Photo 2. EW-OU2-13-180 location facing northeast, after installation.





Photo 3. Spineflower area southeast of EW-OU2-13-180, before construction.



Photo 4. Spineflower area southeast of EW-OU2-13-180, after construction.





Photo 5. Road leading to EW-OU2-09-180, facing west, before pipeline installation.



Photo 6. Road leading to EW-OU2-09-180, facing east, after pipeline installation.





Photo 7. Piperia south of the road, facing east, before pipeline installation.



Photo 8. Piperia south of the road, facing southeast, after pipeline installation.





Photo 9. Location of pipeline installation along road, facing east, before construction.



Photo 10. Location of pipeline installation along road, facing east, after construction.





Photo 11. Monterey spineflower area northeast of EW-OU2-09-180, facing west, before construction.



Photo 12. Monterey spineflower area northeast of EW-OU2-09-180, facing west, before construction.





Photo 13. Gilia and Monterey spineflower area south of EW-OU2-09-180, facing southeast, before construction.



Photo 14. Gilia and Monterey spineflower area south of EW-OU2-09-180, facing east, after construction.

