

Notice to Proceed Request (NTPR) #3

AGENCY: California Public Utilities Commission
PROJECT: Eldorado-Lugo-Mohave (ELM) Series Capacitor Project (Proposed Project)
COMPONENTS: OPGW Construction & Overhead Structure Modifications and Staging Yards
CPUC SUBMITTAL DATE: May 11, 2021

1 Project Introduction

The Project is located in San Bernardino County, California, and Clark County, Nevada, and would occur mostly within existing Southern California Edison (SCE) 500-kilovolt (kV) transmission line rights-of-way (ROW) and at existing substations. At some new facility locations, additional ROWs would be required. The Project would increase the amount of power delivered on the existing Eldorado-Lugo and Lugo-Mohave 500 kV transmission lines, address line clearance discrepancies, facilitate communications between substations, and modify substations to accommodate the Proposed Project.

1.1 Permits and Approvals

On April 19, 2019, SCE a regulated California utility, filed an amended application with the California Public Utilities Commission (CPUC) for a Certificate of Public Convenience and Necessity (CPCN) for the Proposed Project.

The CPUC has exclusive authority over SCE's application for a CPCN for the Project; likewise, permits and approvals shall be obtained by SCE from the CPUC to execute project construction for project components within the CPUC's jurisdiction. However, separate various permits and approvals from other agencies shall be obtained by SCE to execute project components on lands under those jurisdictional agencies.

This NTPR has been developed to request a notice to proceed for project components or portions of the project components located within the CPUC's jurisdiction.

2 Notice to Proceed Request Summary

SCE requests an NTP from the CPUC to construct the following improvements along certain segments of the existing 500 kV transmission line, located in California on non-federal lands:

- Installation of optical ground wire (OPGW) fiber optic line along the Lugo-Mohave transmission line from the California/Nevada border near structure M165-T4 (east end) to M68-T2 (near Ludlow Series Capacitor Site on the west end).
 - M68-T2 is located on land managed by the Bureau of Land Management (BLM).
 - M68-T4 is the last existing structure within CPUC jurisdiction that has been included with this NTPR for construction activities that would occur for the installation of OPGW along the Lugo-Mohave transmission line.

- Modifications to strengthen overhead structures with new OPGW splice structures.
- Development of the Fenner Staging Yard and Ludlow Alternate Staging Yard.

These activities are described in the Final Mitigated Negative Declaration (November 2019) developed by the CPUC and are consistent with the proposed work to be performed at the upgrade locations of the Project. The locations of these project components are shown in the Project Overview map in Figure 1.

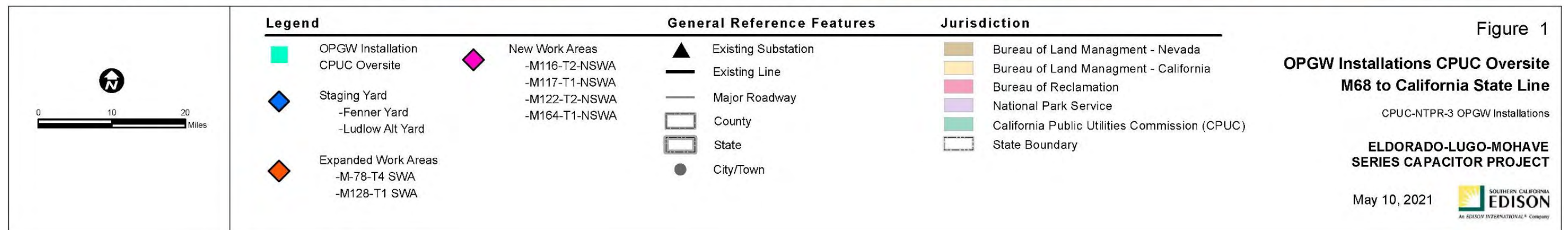
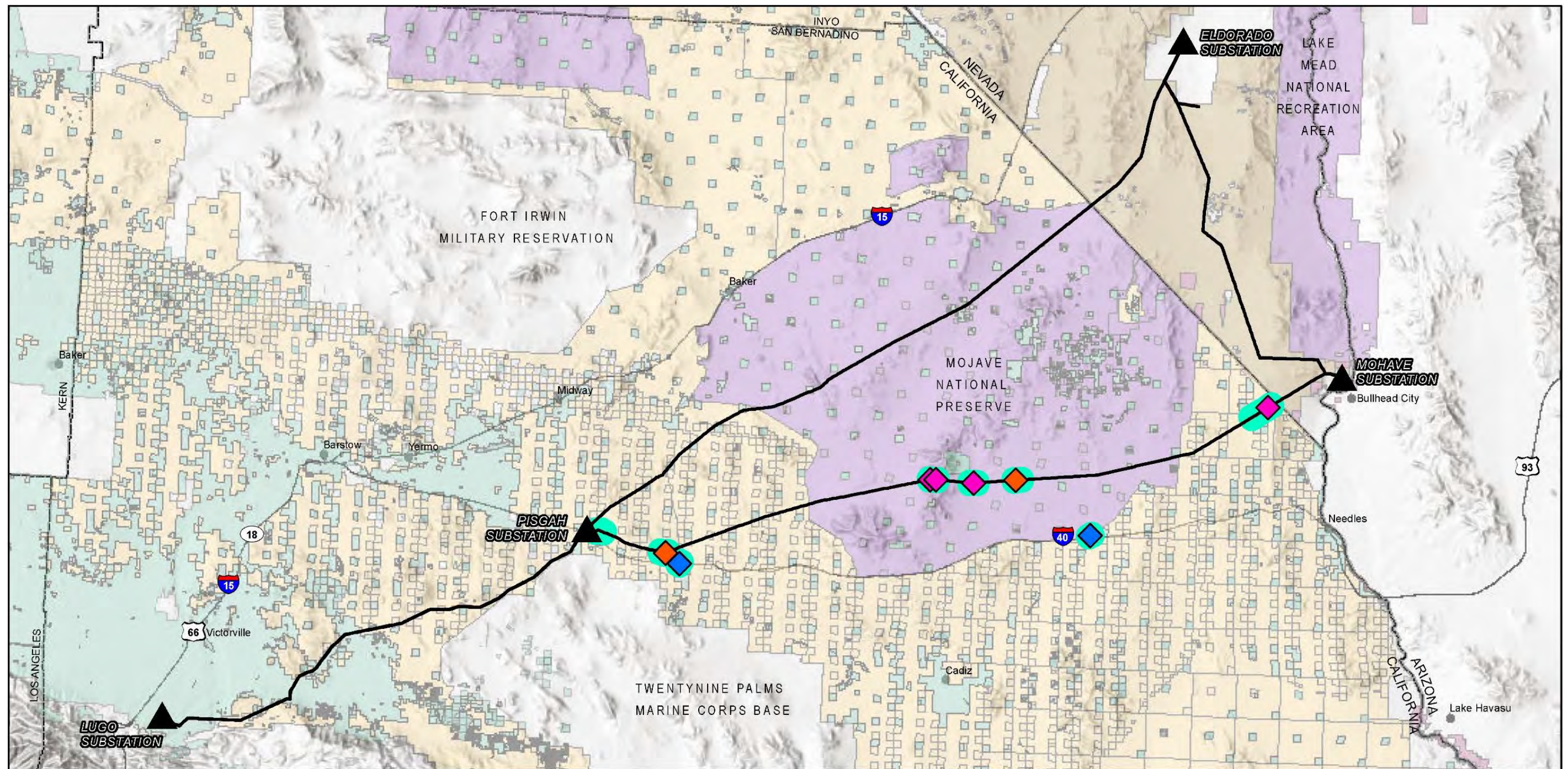


Figure 1
OPGW Installations CPUC Oversight
M68 to California State Line
 CPUC-NTPR-3 OPGW Installations
ELDERADO-LUGO-MOHAVE
SERIES CAPACITOR PROJECT
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3 Optical Ground Wire Installation on the Lugo-Mohave Transmission Line

SCE requests an NTP from the CPUC to construct the following improvements along certain segments of the existing Lugo to Mohave 500 kV transmission line located in California on non-federal lands:

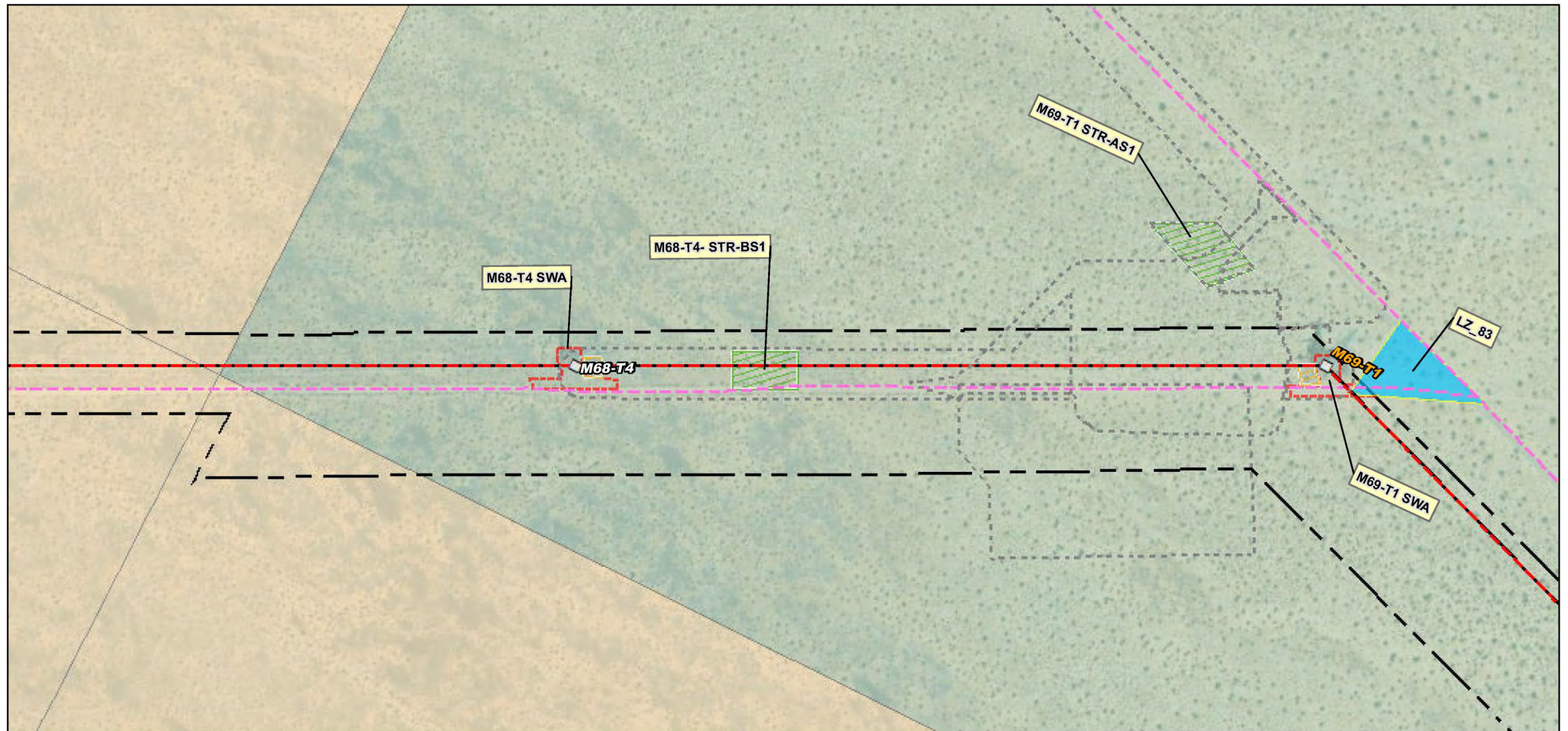
- Remove overhead ground wire (OHGW) and install OPGW on existing towers of the Lugo-Mohave 500 kV transmission line.
- Beginning at the state line and proceeding west, remove the southerly OHGW and replace with an OPGW. The use of existing roads and helicopter landing zones (LZ) will support the construction activities.
- Complete modifications to strengthen the existing structures that will be configured with the new OPGW splice locations.. These modifications will occur at the following existing structures: M68-T4, M69-T1, M69-T3, M78-T4, M116-T2, M117-T1, M122-T2, M128-T1, and M164-T1.

3.1 Construction Location, Description of Work Areas and Existing Conditions, and Approximate Acreage of Disturbance By Work Area, Vegetation Type and Land Use

The table and the Figure 2 maps use specific terms in reference to the different types of construction activities that occur in different work areas for OPGW installation. Below are the definitions for these terms:

- **Equipment Site:** Area to be used by equipment to complete the connecting of the fiber to the structure as well as the splicing of the fiber.
- **New Structure Work Area (NSWA):** Existing, previously disturbed, spur road and/or crane pad site.
- **Structure Work Area (SWA):** Area designated for the personnel to setup equipment and complete the installation of the OPGW. In some cases, the overall previously disturbed area was not included in the proposed SWA. Beta Engineering is proposing to modify the SWA (sites shown in the following table) by including all the previously disturbed areas around the structure site. The SWA was reconfigured to provide a net zero change in disturbance totals at these sites (moved the area from main the access road to the area around structure).
- **STR-BS1/AS1:** The OPGW work areas designated for the equipment to be used for reeling in the old ground wire and spooling out the new OPGW
- **SA-BS1/AS1:** The ingress/egress to the above-mentioned equipment work areas
- **Footpath:** The route personnel will use to get from the SWA to the equipment work areas (STR-BS1/AS1). Only foot traffic will use these routes.
- **Landing Zones (LZ):** An area designated to allow the helicopter to land safely away from any obstructions. The area will be used by the helicopter crew to shuttle material and personnel to respective structure sites. There will be a support fuel truck/mechanic vehicle for the helicopter crew.

The table following the maps contains information on the location of construction activities (by existing structure number or helicopter LZ number), the associated work areas, a description of construction activity within those work areas, and a reference to the map page of Figure 2 where those are shown. In addition, existing site conditions are described for each work area. Lastly, an approximate acreage of disturbance by work area and by vegetation type or land use is shown.



General Reference Features

- Other Work Areas
- Existing Transmission Structure
- New Optical Groundwire
- Existing Transmission Line
- Existing Access Non-Paved
- Equipment Setup Area
- OPGW Pull Site
- Helicopter Landing Zone
- New Structure Work Area
- Existing Right of Way

Jurisdiction

- Bureau of Land Management - Nevada
- Bureau of Land Management - California
- Bureau of Reclamation
- National Park Service
- California Public Utilities Commission (CPUC)
- State Boundary

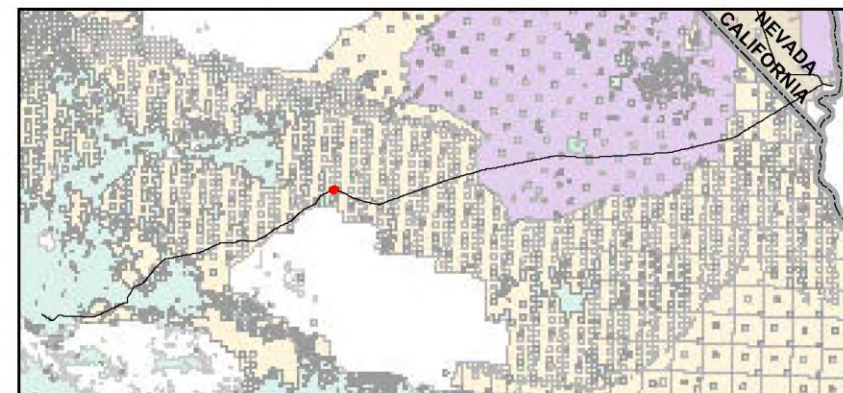
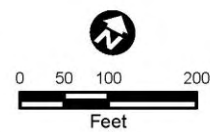
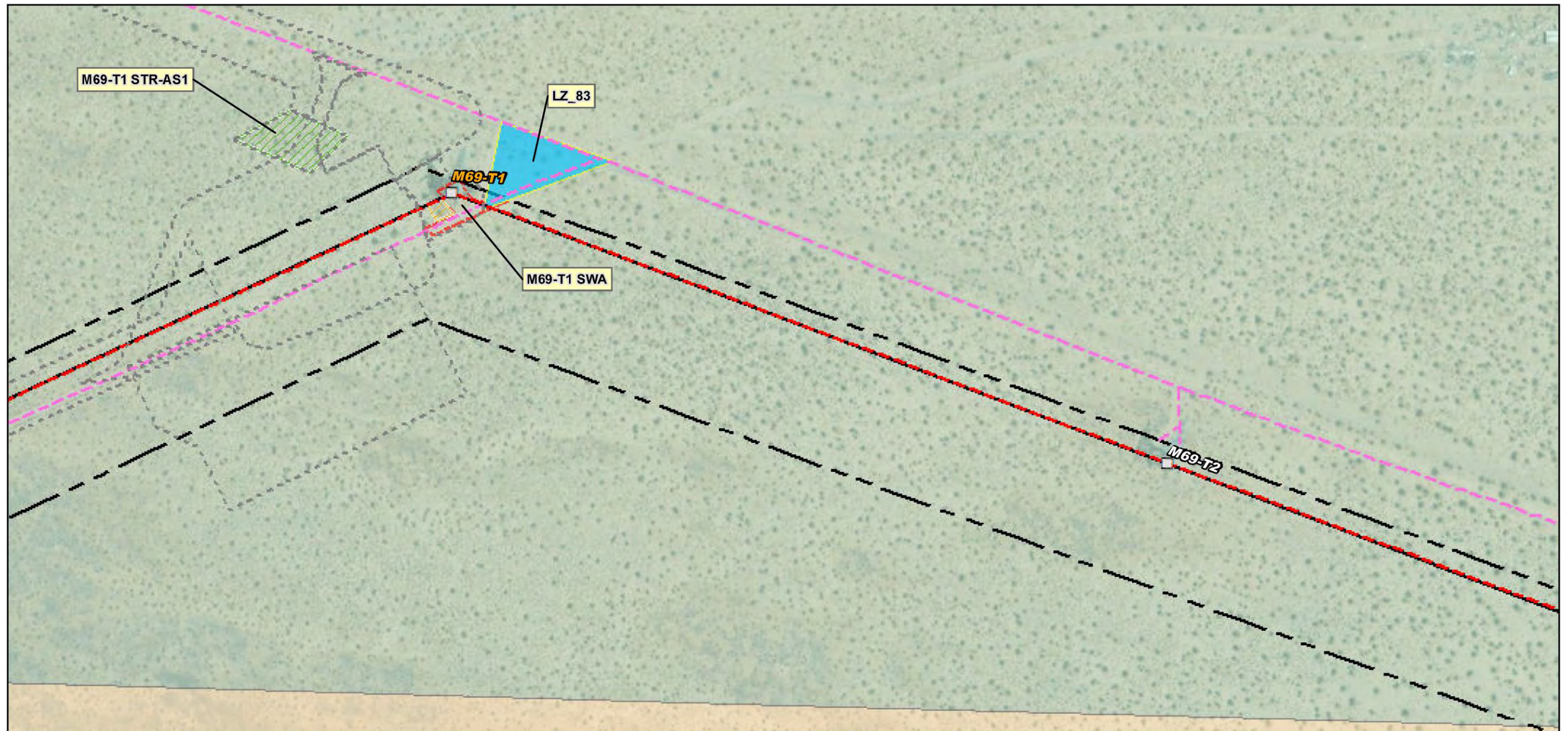


Figure 2
OPGW Installations CPUC Oversight
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 CPUC-NTPR-3 OPGW Installations
 Page 1 of 16
ELDORADO-LUGO-MOHAVE
SERIES CAPACITOR PROJECT
 May 10, 2021



General Reference Features

- Other Work Areas
- Existing Transmission Structure
- New Optical Groundwire
- Existing Transmission Line
- Existing Access Non-Paved
- Equipment Setup Area
- OPGW Pull Site
- Helicopter Landing Zone
- New Structure Work Area
- Existing Right of Way

Jurisdiction

- Bureau of Land Management - Nevada
- Bureau of Land Management - California
- Bureau of Reclamation
- National Park Service
- California Public Utilities Commission (CPUC)
- State Boundary

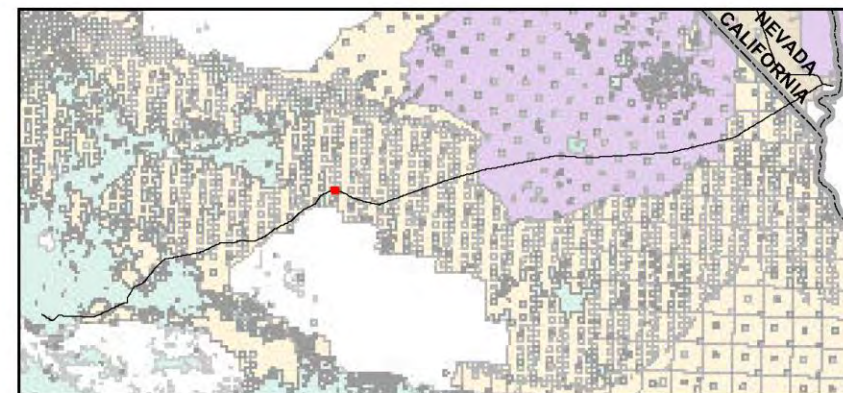
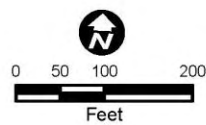
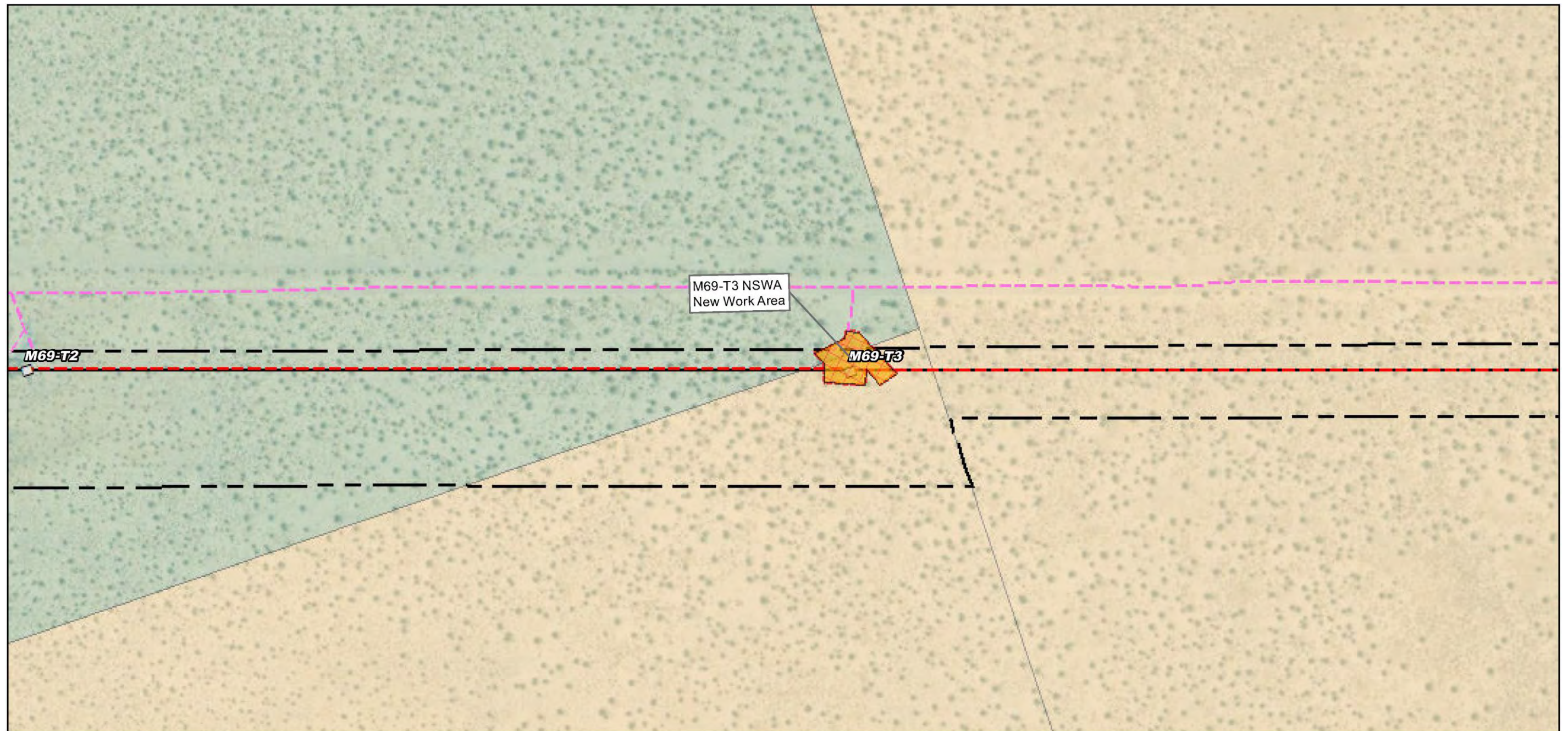


Figure 2
OPGW Installations CPUC Oversight
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 Page 2 of 16
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General Reference Features

-  New Work Area
-  Existing Transmission Structure
-  New Optical Groundwire
-  Existing Transmission Line
-  Existing Access Non-Paved
-  New Structure Work Area
-  Existing Right of Way

Jurisdiction

-  Bureau of Land Management - Nevada
-  Bureau of Land Management - California
-  Bureau of Reclamation
-  National Park Service
-  California Public Utilities Commission (CPUC)
-  State Boundary

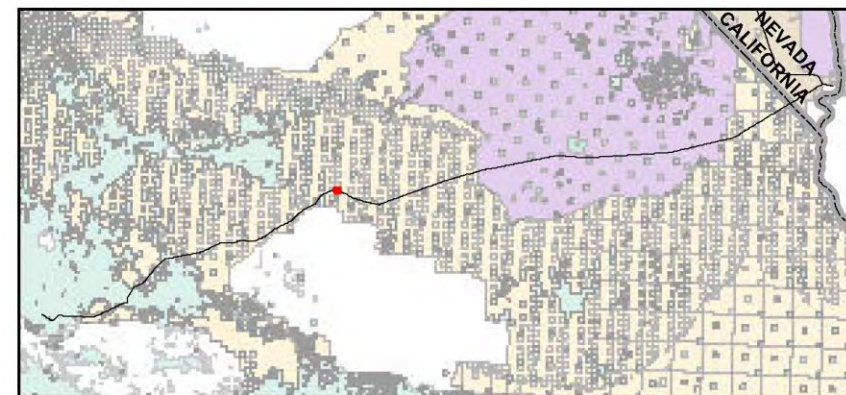
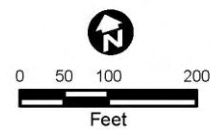
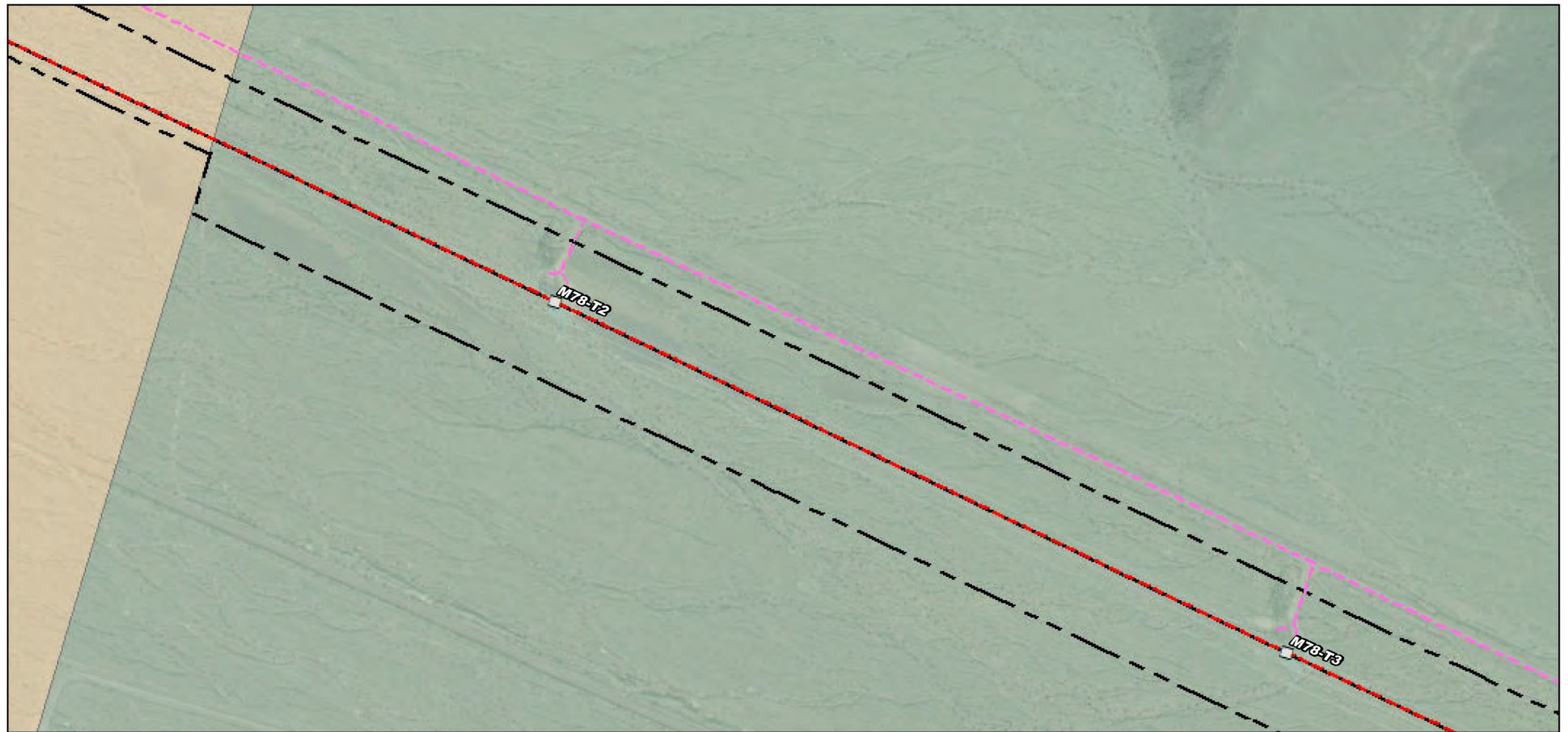


Figure 2
OPGW Installations CPUC Oversight
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 Page 3 of 16
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General Reference Features

- Existing Transmission Structure
- New Optical Groundwire
- Existing Transmission Line
- Existing Access Non-Paved
- Existing Right of Way

Jurisdiction

- Bureau of Land Management - Nevada
- Bureau of Land Management - California
- Bureau of Reclamation
- National Park Service
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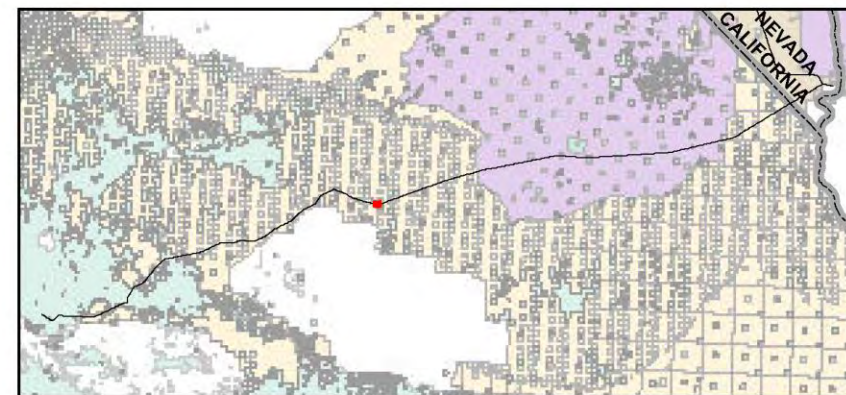
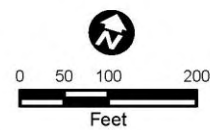
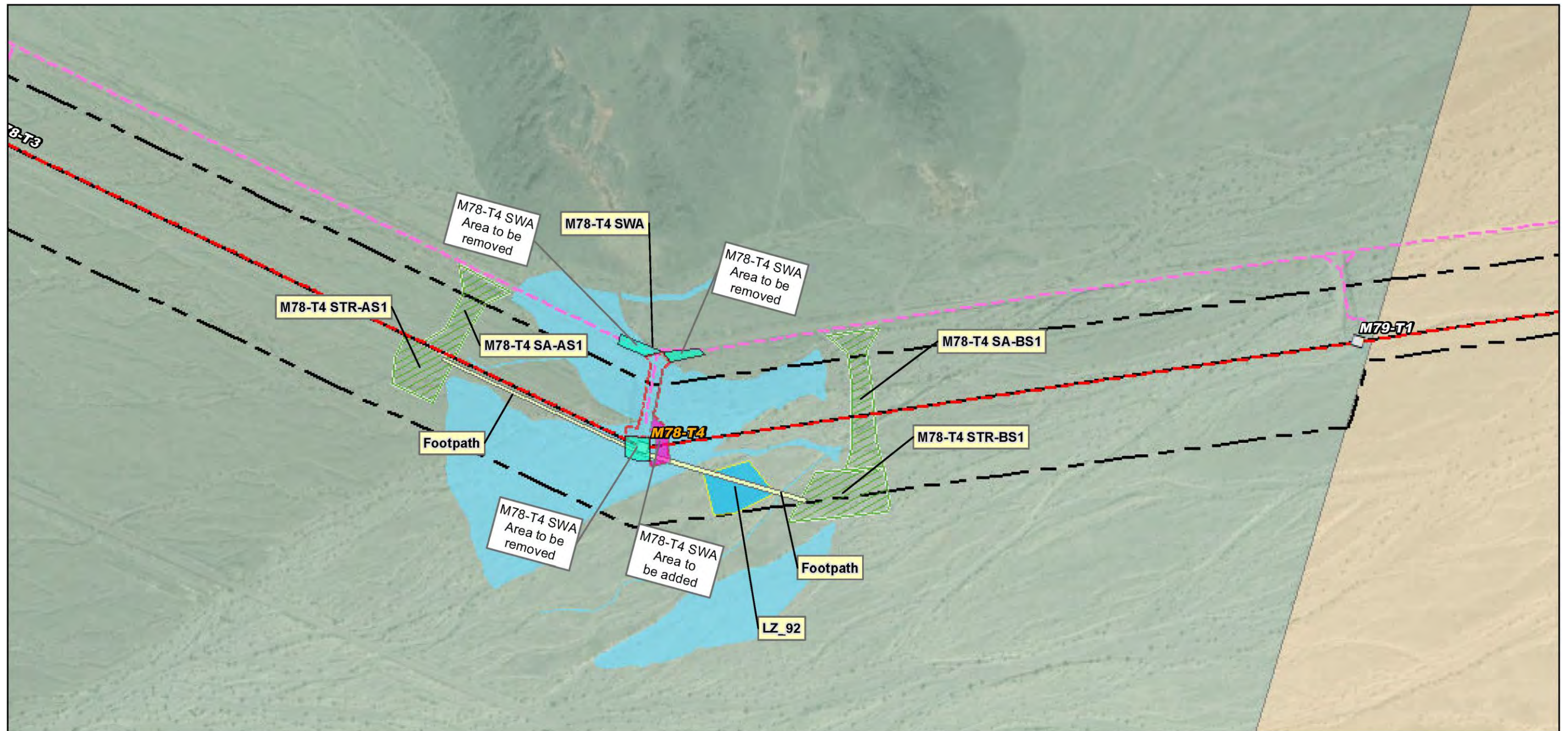


Figure 2
OPGW Installations CPUC Oversight
M68 to California State Line
 CPUC-NTPR-3 OPGW Installations
 Page 4 of 16
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May 10, 2021 SOUTHERN CALIFORNIA EDISON
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General Reference Features

- Area to be removed
- Area to be added
- Existing Transmission Structure
- New Optical Groundwire
- Existing Transmission Line
- Existing Access Non-Paved
- Footpath
- OPGW Pull Site
- Helicopter Landing Zone
- New Structure Work Area
- Existing Right of Way

Jurisdiction

- Jurisdictional Waterways
- Bureau of Land Management - Nevada
- Bureau of Land Management - California
- Bureau of Reclamation
- National Park Service
- California Public Utilities Commission (CPUC)
- State Boundary

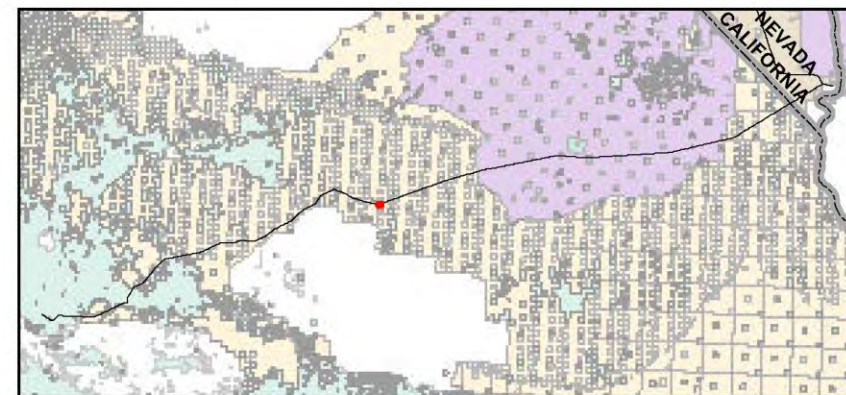
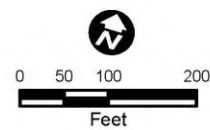
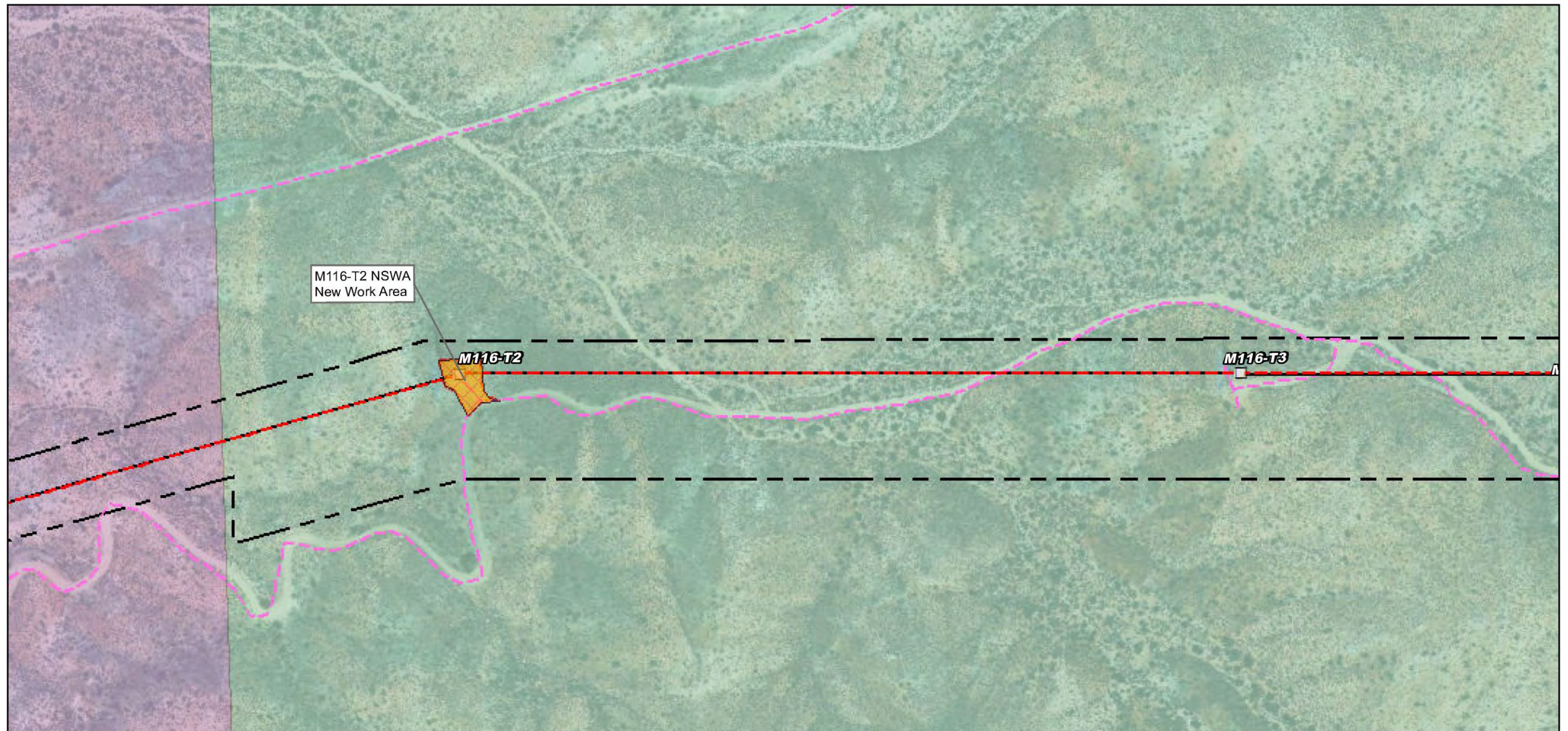


Figure 2
OPGW Installations CPUC Oversight
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 CPUC-NTPR-3 OPGW Installations
 Page 5 of 16
ELDORADO-LUGO-MOHAVE
SERIES CAPACITOR PROJECT

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General Reference Features

-  New Work Area
-  Existing Transmission Structure
-  New Optical Groundwire
-  Existing Transmission Line
-  Existing Access Non-Paved
-  New Structure Work Area
-  Existing Right of Way

Jurisdiction

-  Bureau of Land Management - Nevada
-  Bureau of Land Management - California
-  Bureau of Reclamation
-  National Park Service
-  California Public Utilities Commission (CPUC)
-  State Boundary

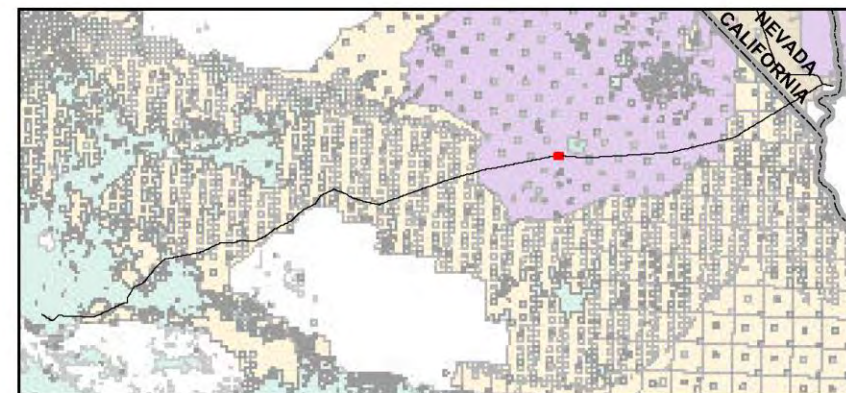
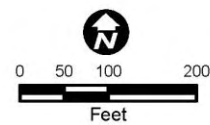
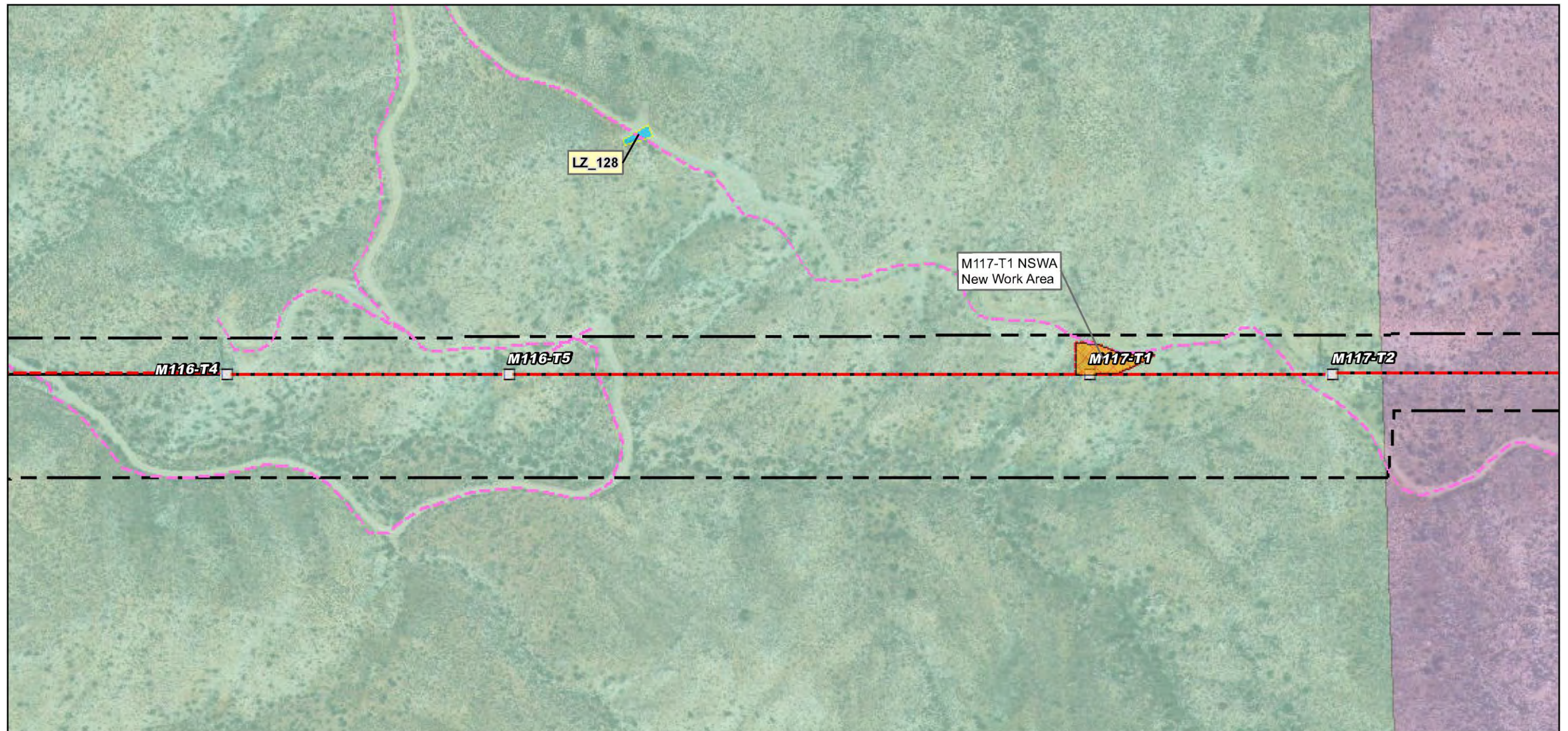










Figure 2
OPGW Installations CPUC Oversight
M68 to California State Line
 CPUC-NTPR-3 OPGW Installations
 Page 6 of 16
ELDORADO-LUGO-MOHAVE
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May 10, 2021  **SOUTHERN CALIFORNIA EDISON**
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General Reference Features

-  New Work Area
-  Existing Transmission Structure
-  New Optical Groundwire
-  Existing Transmission Line
-  Existing Access Non-Paved
-  Helicopter Landing Zone
-  New Structure Work Area
-  Existing Right of Way
-  Jurisdictional Waterways

Jurisdiction

-  Bureau of Land Management - Nevada
-  Bureau of Land Management - California
-  Bureau of Reclamation
-  National Park Service
-  California Public Utilities Commission (CPUC)
-  State Boundary

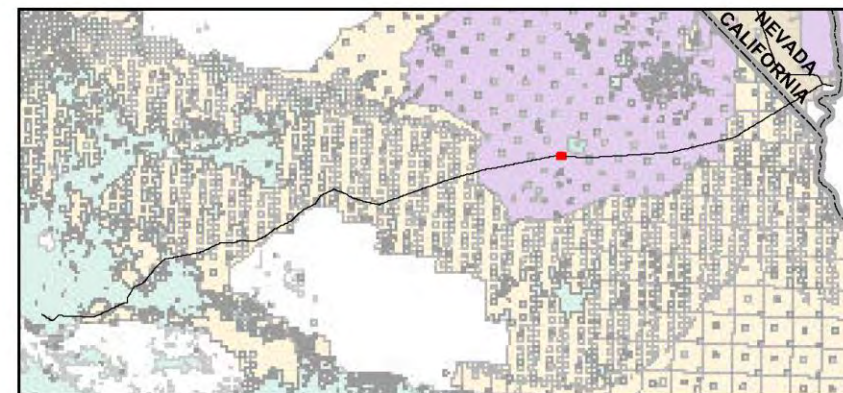
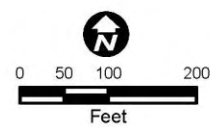
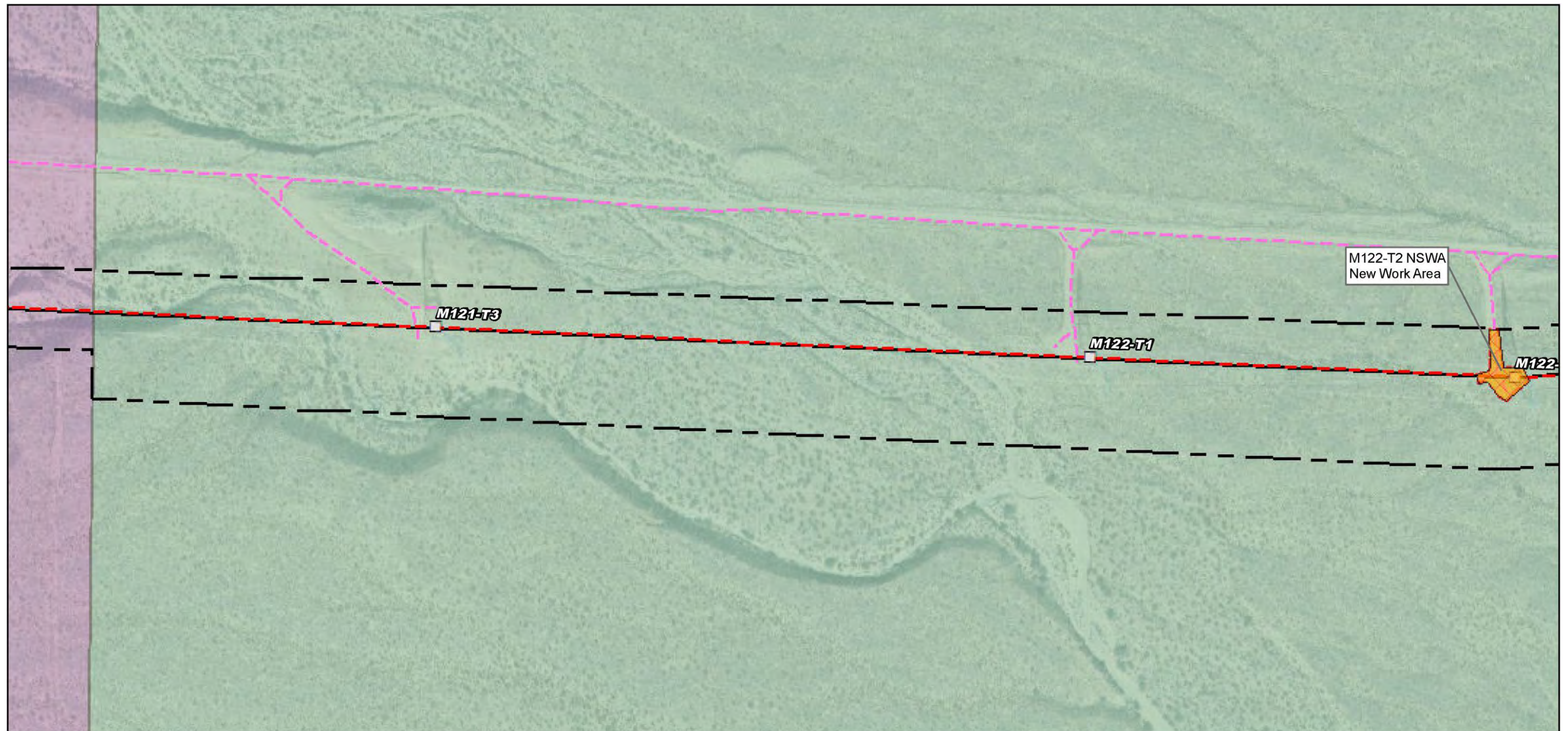


Figure 2
OPGW Installations CPUC Oversight
M68 to California State Line
 CPUC-NTPR-3 OPGW Installations
 Page 7 of 16
ELDORADO-LUGO-MOHAVE
SERIES CAPACITOR PROJECT

May 10, 2021  **SOUTHERN CALIFORNIA EDISON**
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General Reference Features

-  New Work Area
-  Existing Transmission Structure
-  New Optical Groundwire
-  Existing Transmission Line
-  Existing Access Non-Paved
-  New Structure Work Area
-  Existing Right of Way

Jurisdiction

-  Bureau of Land Management - Nevada
-  Bureau of Land Management - California
-  Bureau of Reclamation
-  National Park Service
-  California Public Utilities Commission (CPUC)
-  State Boundary

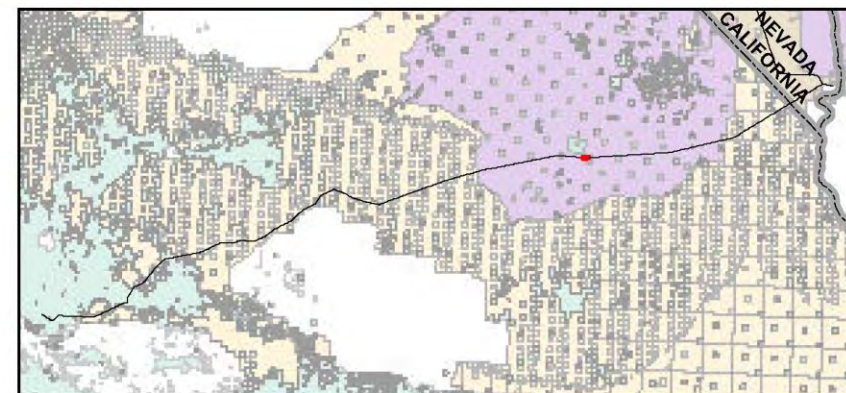
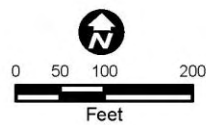
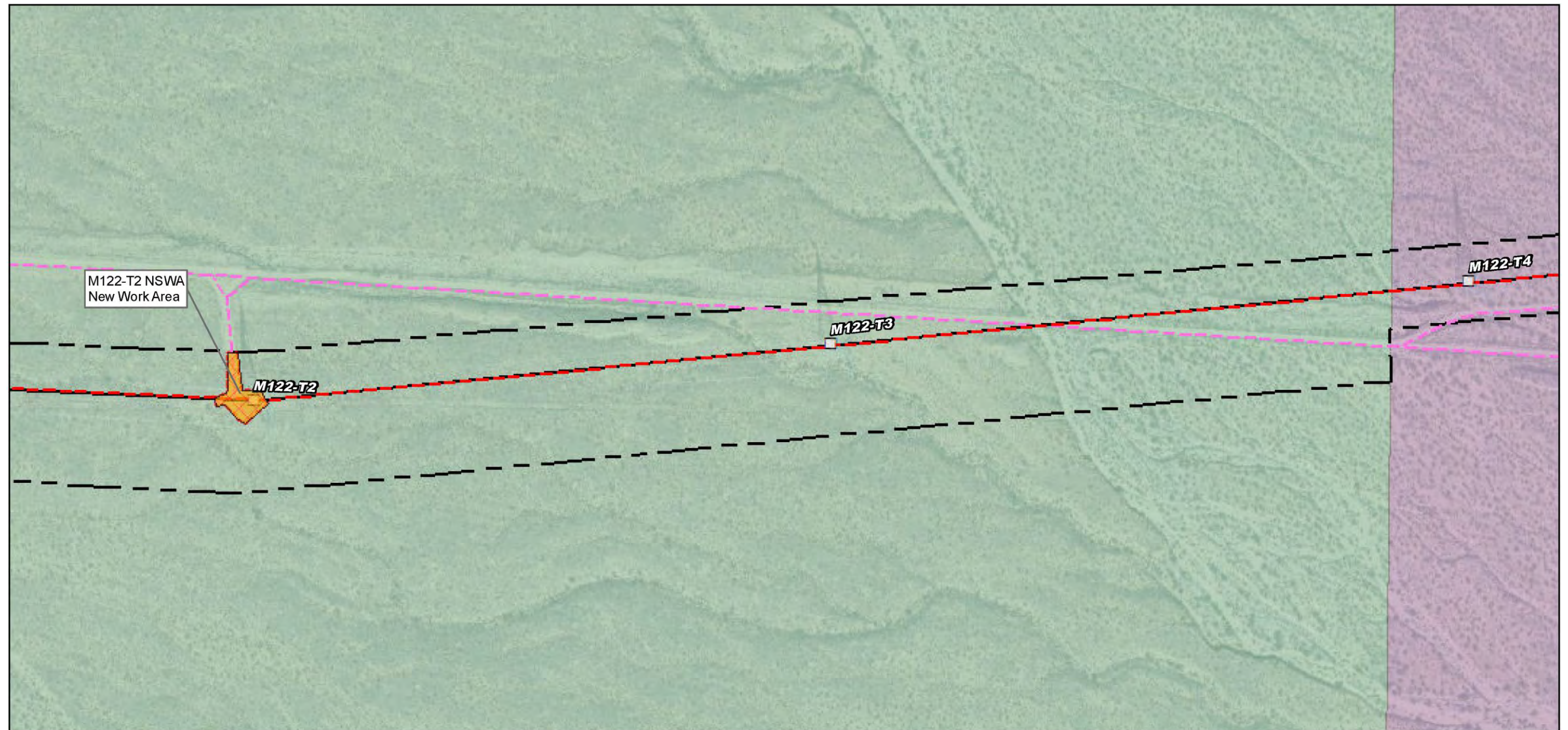


Figure 2
OPGW Installations CPUC Oversight
M68 to California State Line
 CPUC-NTPR-3 OPGW Installations
 Page 8 of 16
ELDORADO-LUGO-MOHAVE
SERIES CAPACITOR PROJECT

May 10, 2021  **SOUTHERN CALIFORNIA EDISON**
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General Reference Features

- New Work Area
- Existing Transmission Structure
- New Optical Groundwire
- Existing Transmission Line
- Existing Access Non-Paved
- New Structure Work Area
- Existing Right of Way

Jurisdiction

- Bureau of Land Management - Nevada
- Bureau of Land Management - California
- Bureau of Reclamation
- National Park Service
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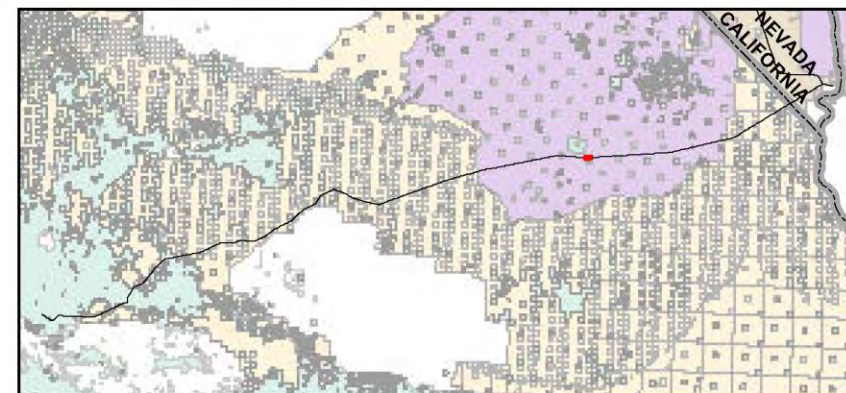
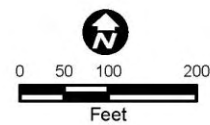
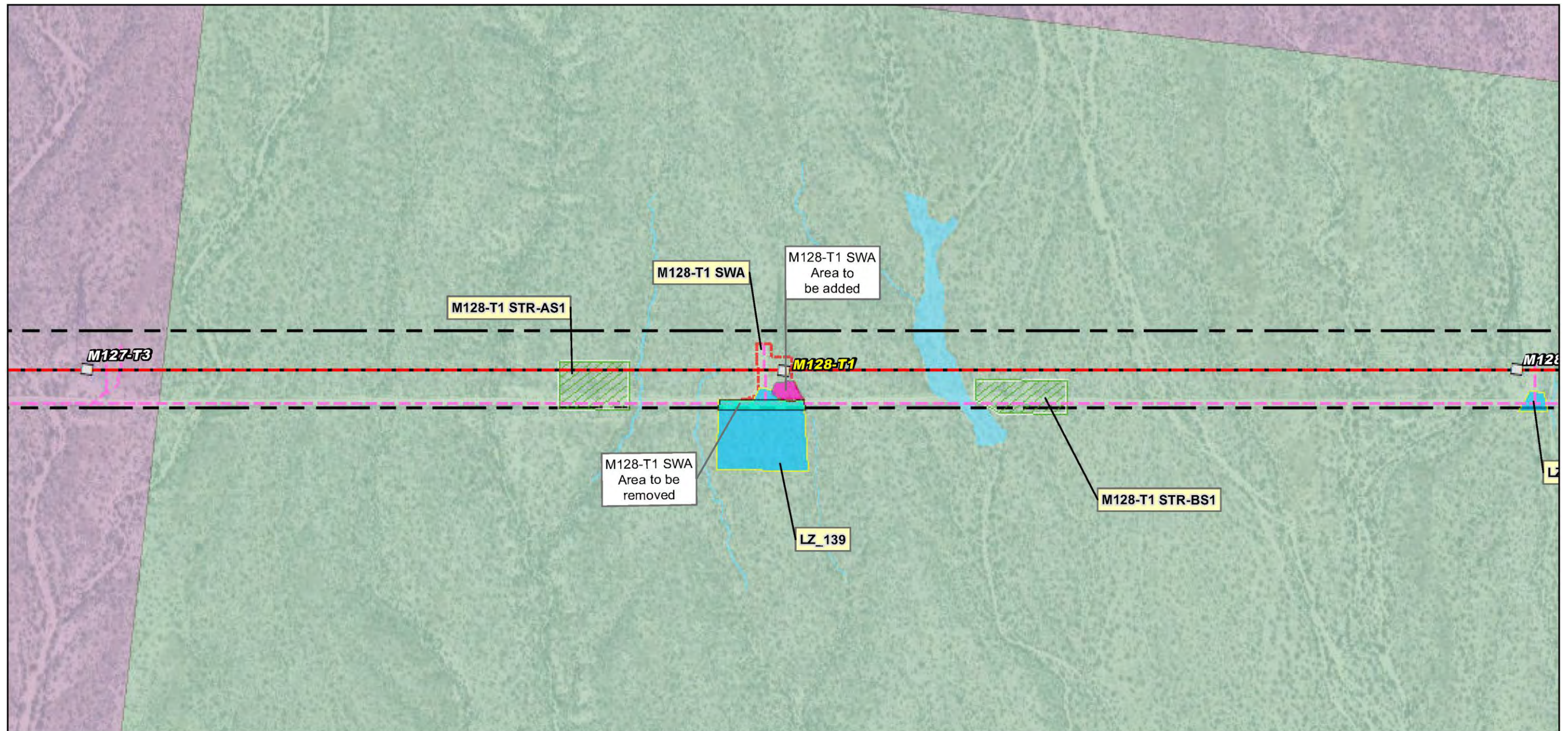


Figure 2
OPGW Installations CPUC Oversight
M68 to California State Line
 CPUC-NTPR-3 OPGW Installations
 Page 9 of 16
ELDORADO-LUGO-MOHAVE
SERIES CAPACITOR PROJECT
 May 10, 2021



General Reference Features

- Area to be removed
- Area to be added
- Existing Transmission Structure
- New Optical Groundwire
- Existing Transmission Line
- Existing Access Non-Paved
- OPGW Pull Site
- Helicopter Landing Zone
- New Structure Work Area
- Existing Right of Way
- Jurisdictional Waterways

Jurisdiction

- Bureau of Land Management - Nevada
- Bureau of Land Management - California
- Bureau of Reclamation
- National Park Service
- California Public Utilities Commission (CPUC)
- State Boundary

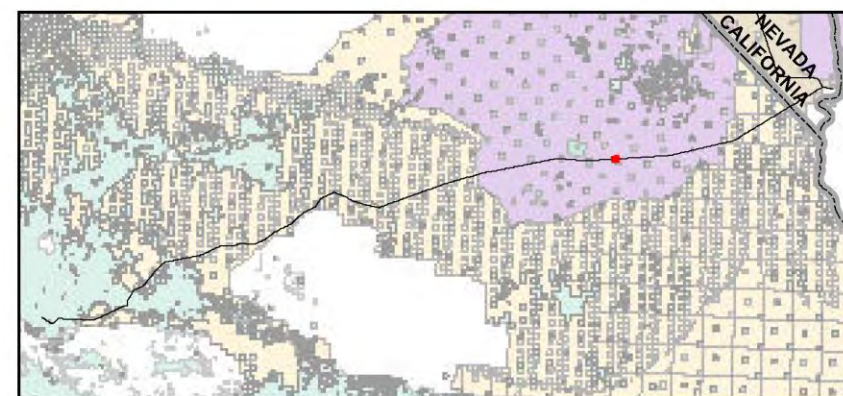
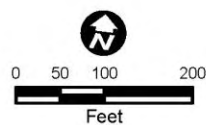
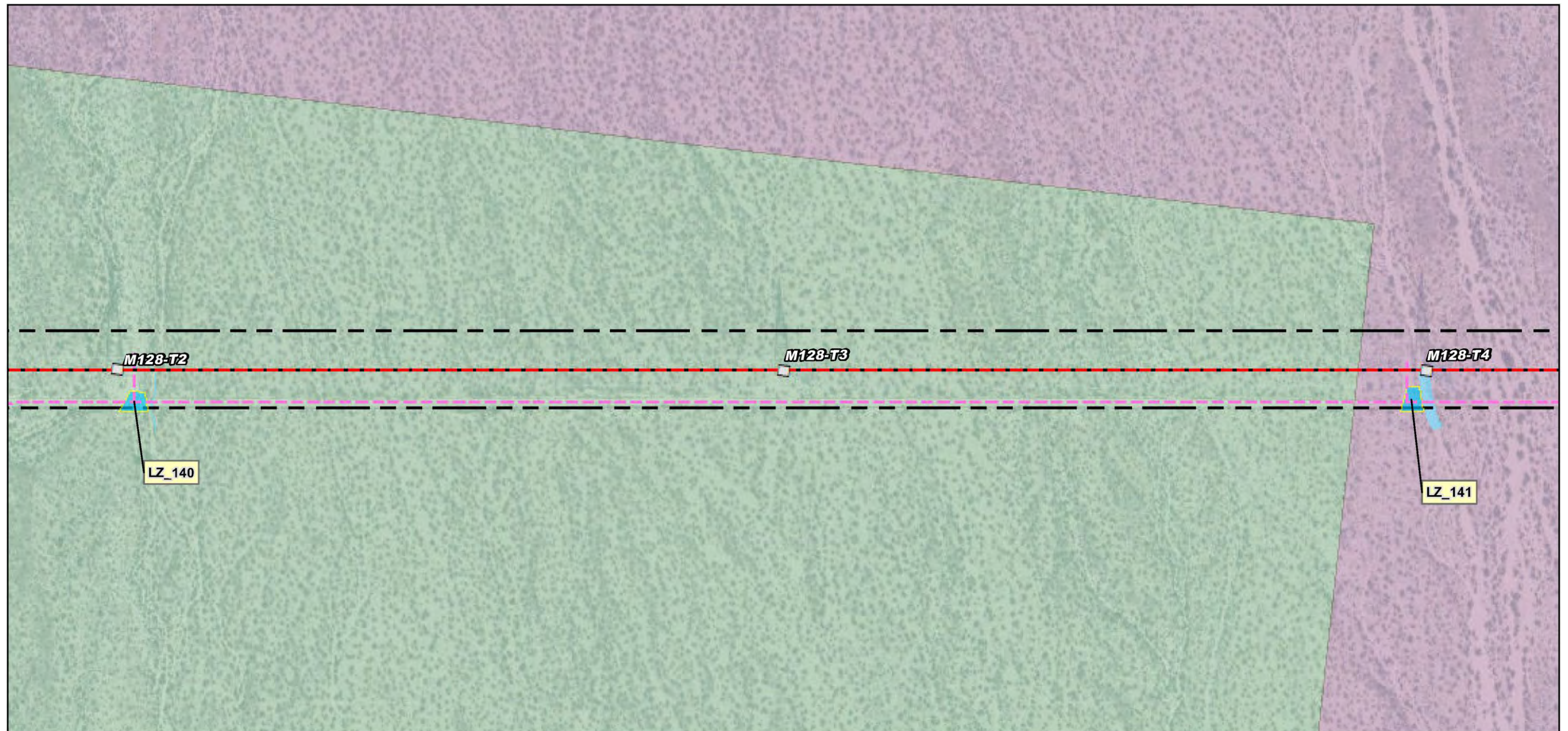


Figure 2
OPGW Installations CPUC Oversight
M68 to California State Line
 CPUC-NTPR-3 OPGW Installations
 Page 10 of 16
ELDORADO-LUGO-MOHAVE
SERIES CAPACITOR PROJECT
 May 10, 2021



General Reference Features

-  Existing Transmission Structure
-  New Optical Groundwire
-  Existing Transmission Line
-  Existing Access Non-Paved
-  Helicopter Landing Zone
-  Existing Right of Way
-  Jurisdictional Waterways

Jurisdiction

-  Bureau of Land Management - Nevada
-  Bureau of Land Management - California
-  Bureau of Reclamation
-  National Park Service
-  California Public Utilities Commission (CPUC)
-  State Boundary

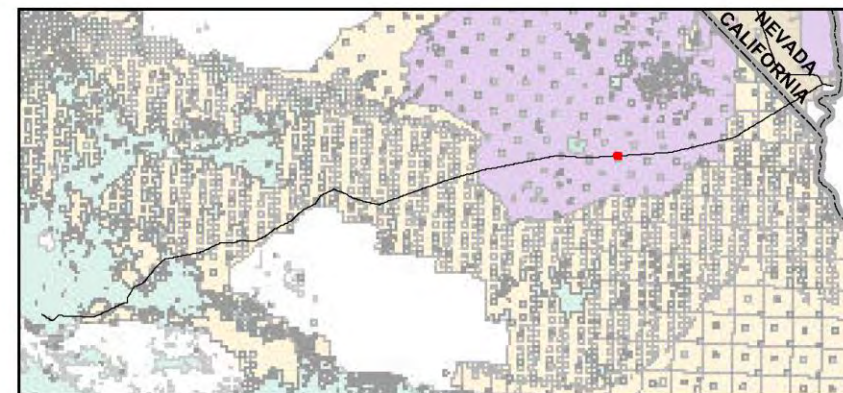
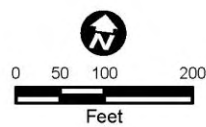

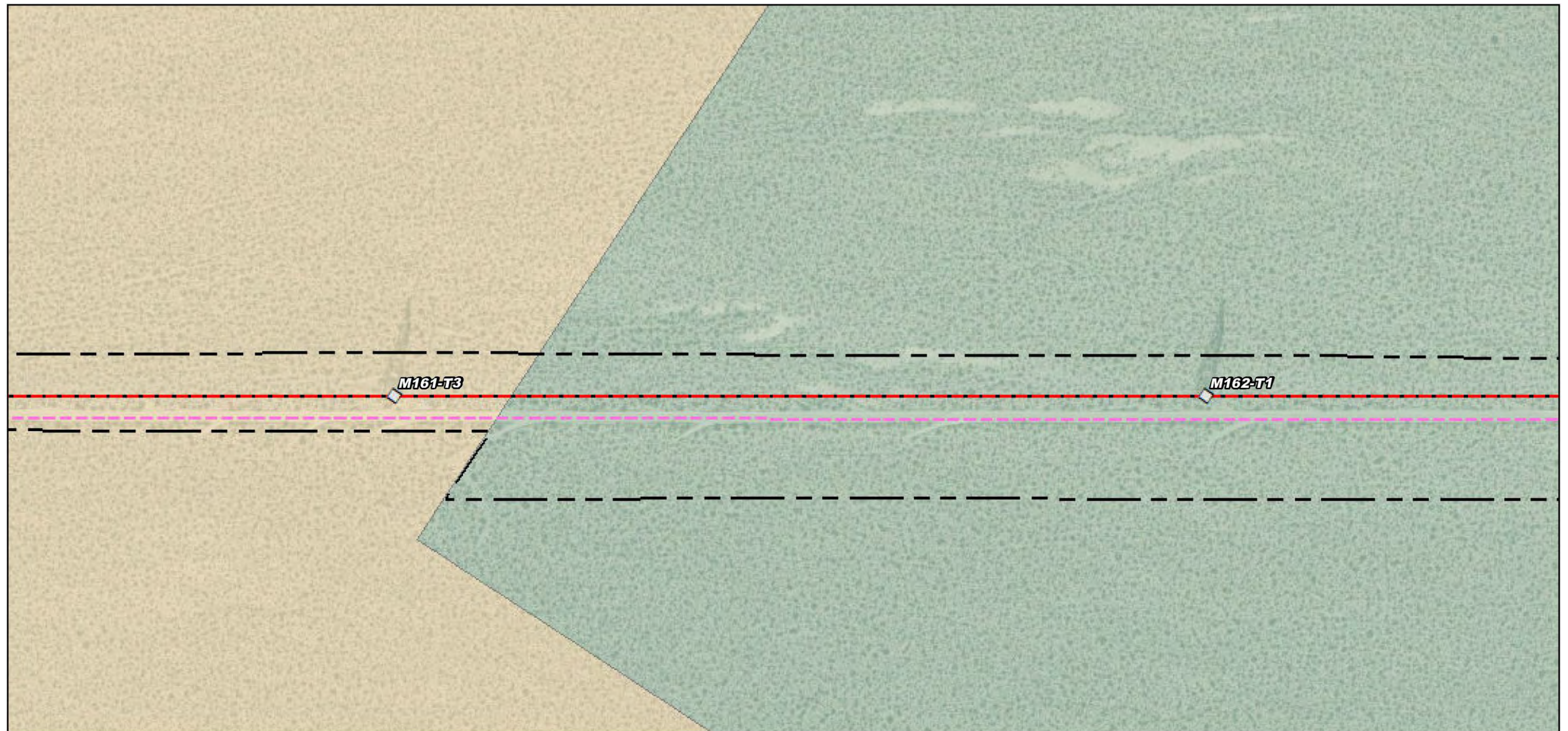


Figure 2
OPGW Installations CPUC Oversight
M68 to California State Line
 CPUC-NTPR-3 OPGW Installations
 Page 11 of 16
ELDORADO-LUGO-MOHAVE
SERIES CAPACITOR PROJECT
 May 10, 2021 



General Reference Features

-  Existing Transmission Structure
-  New Optical Groundwire
-  Existing Transmission Line
-  Existing Access Non-Paved
-  Existing Right of Way

Jurisdiction

-  Bureau of Land Management - Nevada
-  Bureau of Land Management - California
-  Bureau of Reclamation
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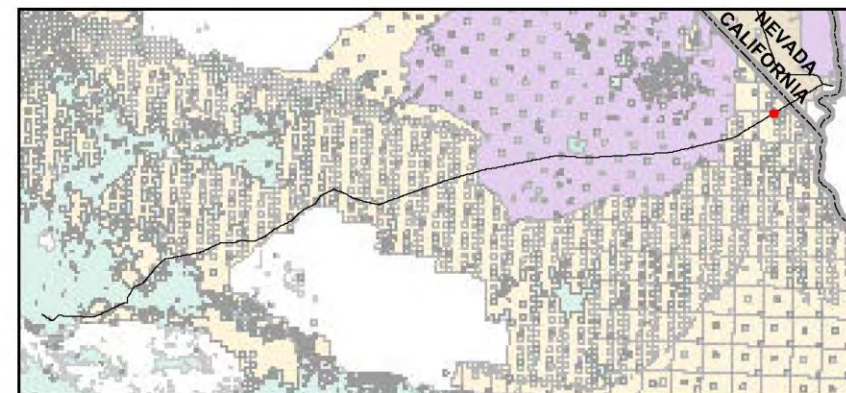
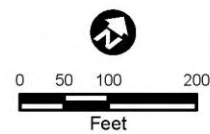

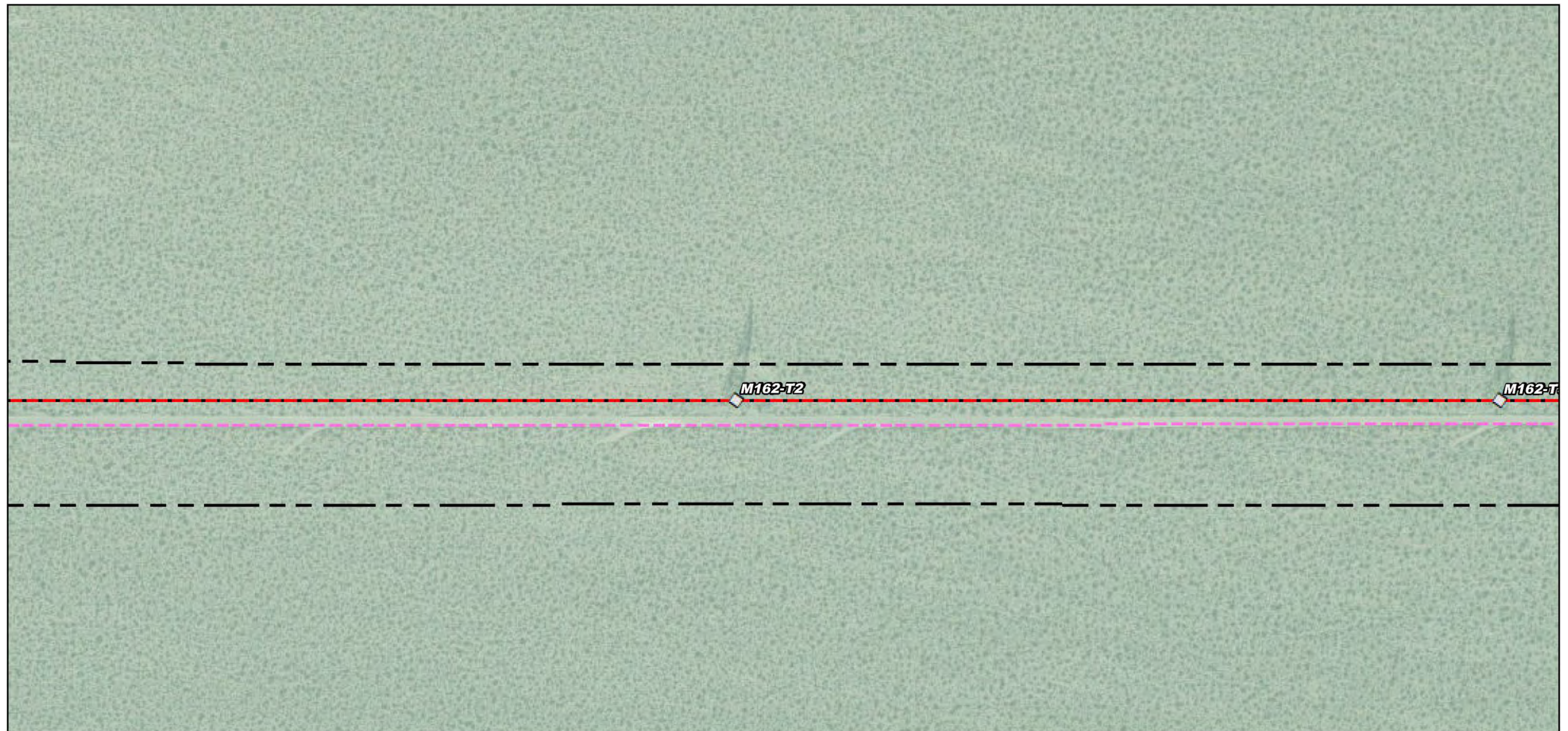


Figure 2
OPGW Installations CPUC Oversight
M68 to California State Line
 CPUC-NTPR-3 OPGW Installations
 Page 12 of 16
ELDORADO-LUGO-MOHAVE
SERIES CAPACITOR PROJECT
 May 10, 2021 



General Reference Features

-  Existing Transmission Structure
-  New Optical Groundwire
-  Existing Transmission Line
-  Existing Access Non-Paved
-  Existing Right of Way

Jurisdiction

-  Bureau of Land Management - Nevada
-  Bureau of Land Management - California
-  Bureau of Reclamation
-  National Park Service
-  California Public Utilities Commission (CPUC)
-  State Boundary

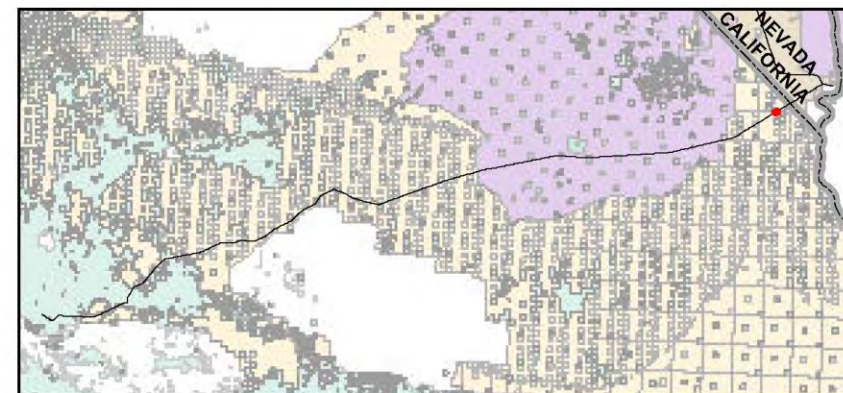
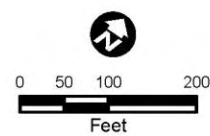
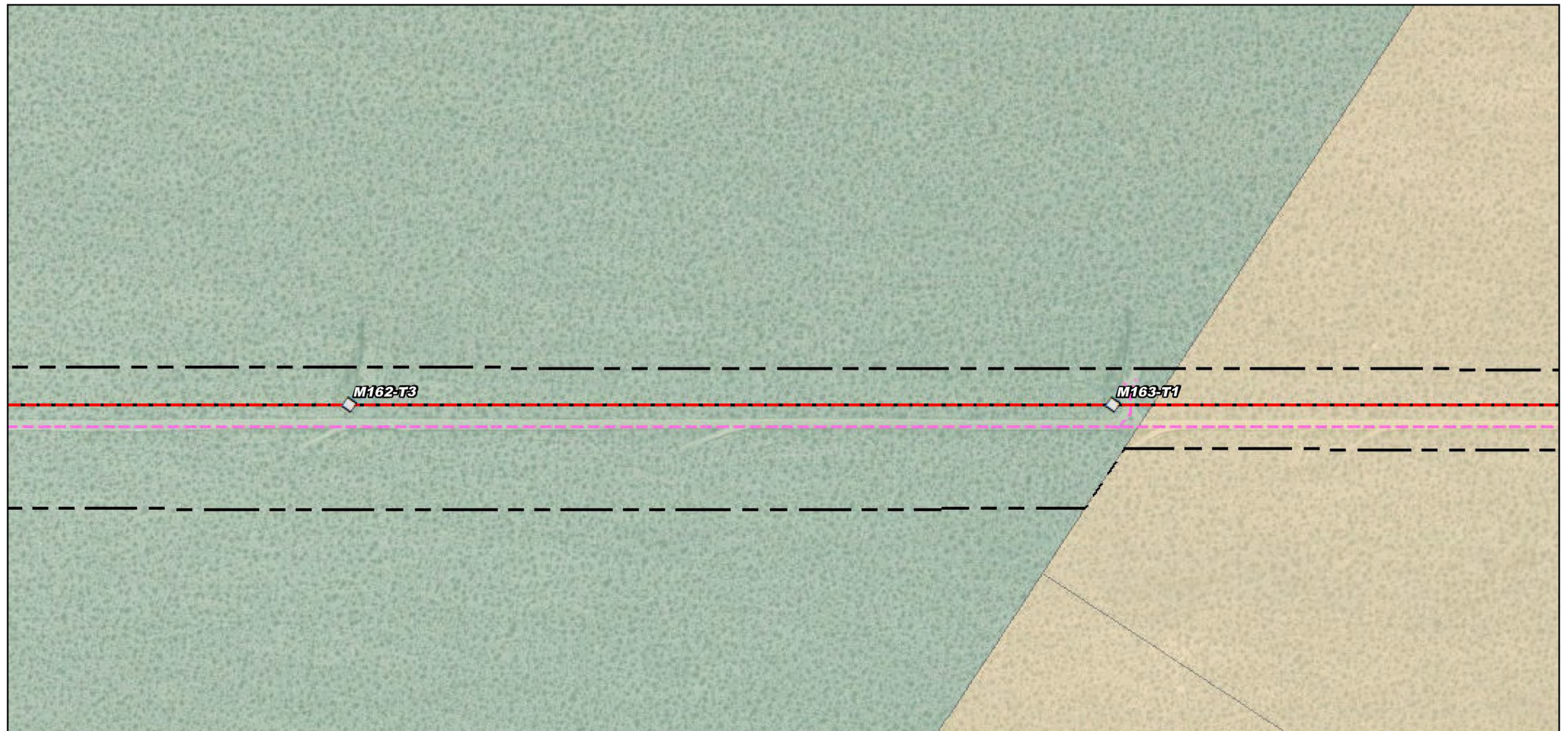


Figure 2
OPGW Installations CPUC Oversight
M68 to California State Line
 CPUC-NTPR-3 OPGW Installations
 Page 13 of 16
ELDORADO-LUGO-MOHAVE
SERIES CAPACITOR PROJECT

May 10, 2021 



General Reference Features

-  Existing Transmission Structure
-  New Optical Groundwire
-  Existing Transmission Line
-  Existing Access Non-Paved
-  Existing Right of Way

Jurisdiction

-  Bureau of Land Management - Nevada
-  Bureau of Land Management - California
-  Bureau of Reclamation
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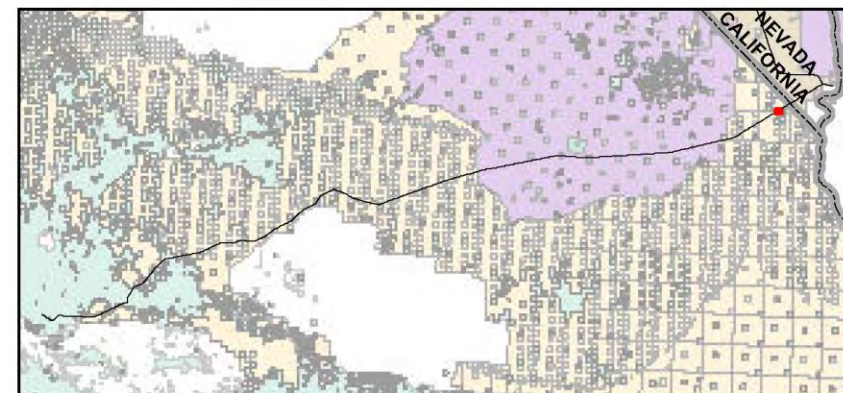
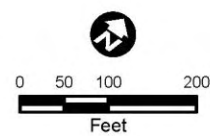
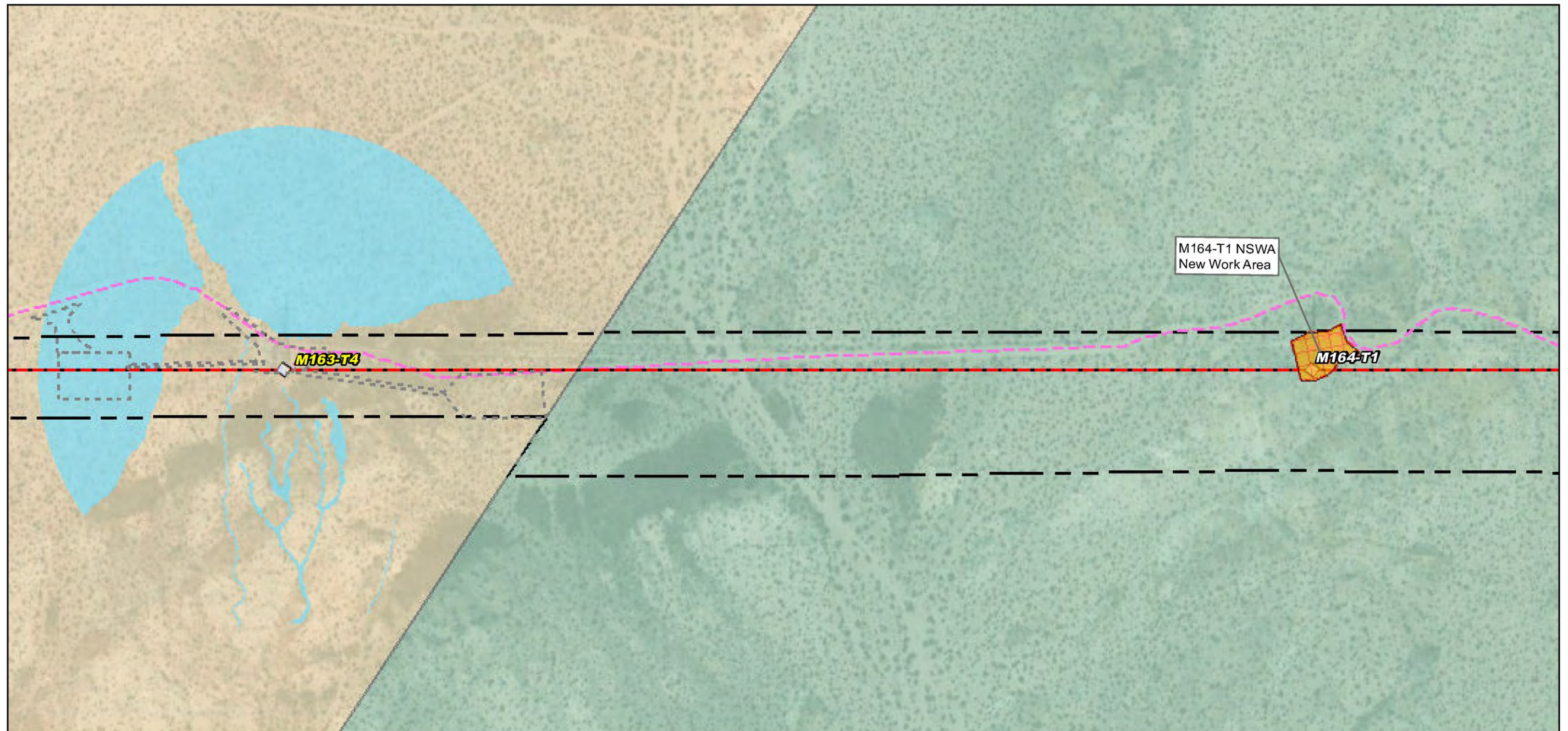


Figure 2
OPGW Installations CPUC Oversight
M68 to California State Line
 CPUC-NTPR-3 OPGW Installations
 Page 14 of 16
ELDORADO-LUGO-MOHAVE
SERIES CAPACITOR PROJECT

May 10, 2021  **SOUTHERN CALIFORNIA EDISON**
An EDISON INTERNATIONAL Company



General Reference Features

- New Work Area
- Other Work Areas
- Existing Transmission Structure
- New Optical Groundwire
- Existing Transmission Line
- Existing Access Non-Paved
- New Structure Work Area
- Existing Right of Way
- Jurisdictional Waterways

Jurisdiction

- Bureau of Land Management - Nevada
- Bureau of Land Management - California
- Bureau of Reclamation
- National Park Service
- California Public Utilities Commission (CPUC)
- State Boundary

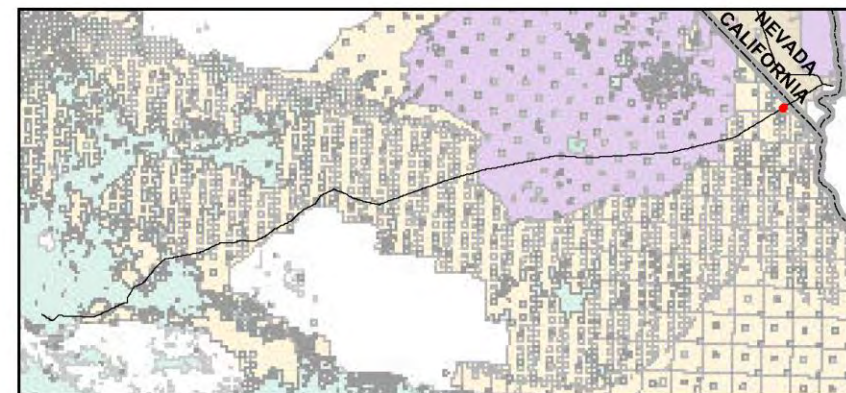
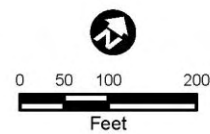
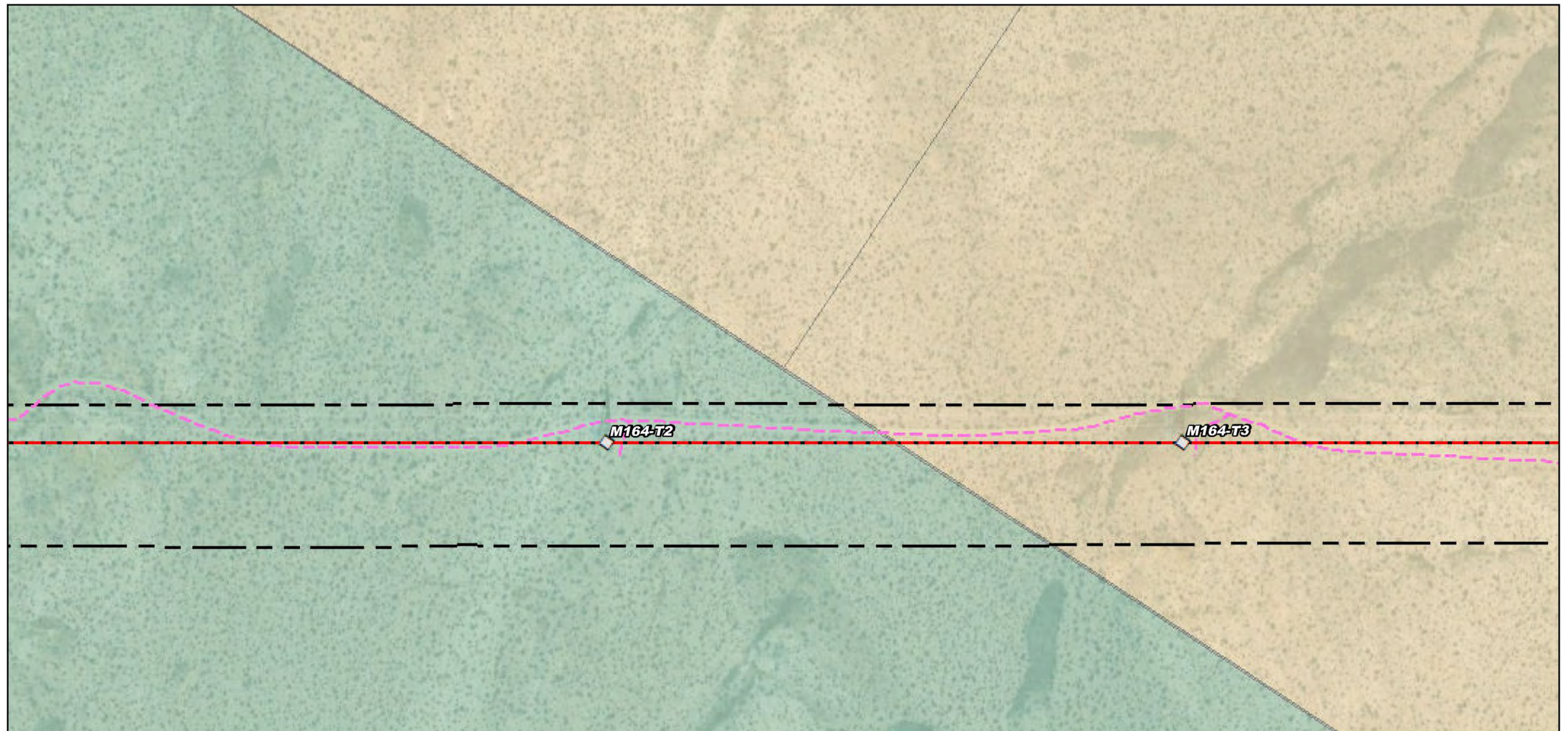


Figure 2
OPGW Installations CPUC Oversight
M68 to California State Line
 CPUC-NTPR-3 OPGW Installations
 Page 15 of 16
ELDORADO-LUGO-MOHAVE
SERIES CAPACITOR PROJECT

May 10, 2021 **SOUTHERN CALIFORNIA EDISON**
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General Reference Features

- Existing Transmission Structure
- New Optical Groundwire
- Existing Transmission Line
- Existing Access Non-Paved
- Existing Right of Way

Jurisdiction

- Bureau of Land Management - Nevada
- Bureau of Land Management - California
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- State Boundary

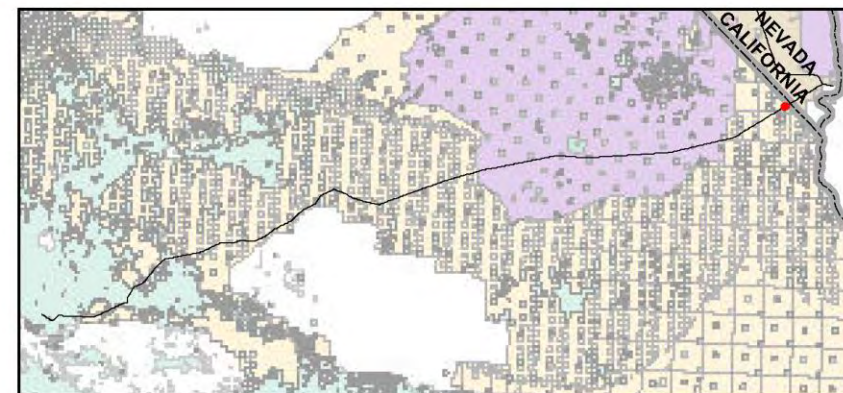
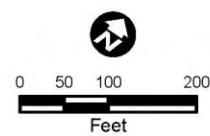


Figure 2
OPGW Installations CPUC Oversight
M68 to California State Line
 CPUC-NTPR-3 OPGW Installations
 Page 16 of 16
ELDORADO-LUGO-MOHAVE
SERIES CAPACITOR PROJECT

May 10, 2021 **SOUTHERN CALIFORNIA EDISON**
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Associated Work Areas, Description of Work	Site Condition	Approximate Acreage of Disturbance Per Work Area ¹	Vegetation Type (If Vegetated) or Land Use	Disturbance (Previously Disturbed or Undisturbed)	Approximate Acreage of Disturbance Per Vegetation Type or Land Use
M68-T4 (Figure 2, Page 2 of 16)					
SWA Equipment Setup Area is where equipment will be positioned to complete the installation and splicing of the OPGW.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.04	<i>Larrea tridentata</i> - <i>Ambrosia dumosa</i> Shrubland Alliance	Undisturbed	0.04
STR-BS1 is the location where equipment will be staged to pull in the new OPGW. These sites can have either the V-Groove, which pulls in and reels in the old ground wire, or the tensioner, which has the new OPGW and spools it out as it is begin pulled in by the V-Groove at the other end of the wire pull.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.25	Developed (includes existing roads, pullouts)	Previously Disturbed	0.03
			<i>Larrea tridentata</i> - <i>Ambrosia dumosa</i> Shrubland Alliance	Previously Disturbed	0.01
			<i>Larrea tridentata</i> - <i>Ambrosia dumosa</i> Shrubland Alliance	Undisturbed	0.21
M69-T1 (Figure 2, Pages 1 and 2)					
Equipment Setup Area is where equipment will be positioned to complete the installation and splicing of the OPGW (Temporary Work Area in NTPR #1).	The Proposed Project area is characterized by undeveloped, open desert lands.	0.03	<i>Larrea tridentata</i> - <i>Ambrosia dumosa</i> Shrubland Alliance	Undisturbed	0.03
STR-AS1 is the location where equipment will be staged to pull in the new OPGW. These sites can have either the V-Groove, which pulls in and reels in the old ground wire, or the tensioner, which has the new OPGW and spools it out as it is begin pulled in by the V-Groove at the other end of the wire pull.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.35	<i>Larrea tridentata</i> - <i>Ambrosia dumosa</i> Shrubland Alliance	Undisturbed	0.29
			<i>Larrea tridentata</i> Shrubland Alliance	Undisturbed	0.06
SWA is where equipment will be positioned to complete the installation and splicing of the OPGW (Temporary Work Area in NTPR #1).	The Proposed Project area is characterized by undeveloped, open desert lands.	0.16	Developed (includes existing roads, pullouts)	Previously Disturbed	0.05
			<i>Larrea tridentata</i> - <i>Ambrosia dumosa</i> Shrubland Alliance	Previously Disturbed	0.10
			<i>Larrea tridentata</i> Shrubland Alliance	Previously Disturbed	0.01

Associated Work Areas, Description of Work	Site Condition	Approximate Acreage of Disturbance Per Work Area ¹	Vegetation Type (If Vegetated) or Land Use	Disturbance (Previously Disturbed or Undisturbed)	Approximate Acreage of Disturbance Per Vegetation Type or Land Use
LZ_83 (Figure 2, Pages 1 and 2 of 16)					
Designated helicopter LZs are close to OPGW work areas. Material and personnel will be flown from these locations to the respective structures to complete detaching and attaching of the OPGW to the structure. These sites are used for helicopter operations, including refueling and related support during the OPGW installation.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.52	Developed (includes existing roads, pullouts)	Previously Disturbed	0.13
			<i>Larrea tridentata</i> – <i>Ambrosia dumosa</i> Shrubland Alliance	Previously Disturbed	0.01
			<i>Larrea tridentata</i> Shrubland Alliance	Previously Disturbed	0.03
			<i>Larrea tridentata</i> Shrubland Alliance	Undisturbed	0.35
M69-T3 (Figure 2, Page 3 of 16)					
The NSWA is existing disturbed work proposed to be added to allow for a crane setup to complete the connecting (socking) of the ground wires together. This is a ground wire transposition structure where the ground wire comes in and dead-ends from both directions at the structure. The crew needs to connect (sock) the ground wire together to allow it to be removed.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.26	<i>Larrea tridentata</i> Shrubland Alliance	Previously Disturbed	0.26
M78-T4 (Figure 2, Page 5 of 16)					
The SWA is a modified work area proposed to utilize the entire previously disturbed area for crane setup. The original SWA was revised by taking space identified along the existing main access road and using it for the proposed area around the structure.	The Proposed Project area is characterized by undeveloped, open desert lands	0.20	Developed (includes existing roads, pullouts)	Previously Disturbed	0.05
			<i>Larrea tridentata</i> - <i>Ambrosia dumosa</i> Shrubland Alliance	Previously Disturbed	0.06
			<i>Larrea tridentata</i> Shrubland Alliance	Previously Disturbed	0.08
			<i>Larrea tridentata</i> Shrubland Alliance	Undisturbed	0.01

Associated Work Areas, Description of Work	Site Condition	Approximate Acreage of Disturbance Per Work Area ¹	Vegetation Type (If Vegetated) or Land Use	Disturbance (Previously Disturbed or Undisturbed)	Approximate Acreage of Disturbance Per Vegetation Type or Land Use
SA-AS1 is the proposed access route for the ingress/egress of equipment and personnel to the OPGW pulling site.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.25	<i>Larrea tridentata</i> Shrubland Alliance	Undisturbed	0.25
SA-BS1 is the proposed access route for the ingress/egress of equipment and personnel to the OPGW pulling site.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.35	<i>Larrea tridentata</i> Shrubland Alliance	Undisturbed	0.35
STR-AS1 is the location where equipment will be staged to pull in the new OPGW. These sites can have either the V-Groove, which pulls in and reels in the old ground wire, or the tensioner, which has the new OPGW and spools it out as it is begin pulled in by the V-Groove at the other end of the wire pull.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.25	<i>Larrea tridentata</i> Shrubland Alliance	Undisturbed	0.25
STR-BS1 is the location where equipment will be staged to pull in the new OPGW. These sites can have either the V-Groove, which pulls in and reels in the old ground wire, or the tensioner, which has the new OPGW and spools it out as it is begin pulled in by the V-Groove at the other end of the wire pull.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.38	<i>Larrea tridentata</i> Shrubland Alliance	Undisturbed	0.38
M78-T4 SWA to M78-T4 STR - AS1 Footpath is the area for the personnel to walk between the structure and OPGW pulling sites. When connecting the ground wire to the new OPGW, the personnel need to walk the wire between the sites to the respective V-Groove/tensioner to connect (sock) the wires together.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.01	<i>Larrea tridentata</i> Shrubland Alliance	Undisturbed	0.01
M78-T4 SWA to M78-T4 STR - BS1 Footpath is the area for the personnel to walk between the structure and OPGW pulling sites. When connecting the ground wire to the new OPGW, the personnel need to walk the wire	The Proposed Project area is characterized by undeveloped, open desert lands.	0.01	<i>Larrea tridentata</i> Shrubland Alliance	Undisturbed	0.01

Associated Work Areas, Description of Work	Site Condition	Approximate Acreage of Disturbance Per Work Area ¹	Vegetation Type (If Vegetated) or Land Use	Disturbance (Previously Disturbed or Undisturbed)	Approximate Acreage of Disturbance Per Vegetation Type or Land Use
between the sites to the respective V-Groove/tensioner to connect (sock) the wires together.					
NSWA is a temporary existing 12-foot two-track road to allow access for support to LZ_92.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.06	Developed (includes existing roads, pullouts)	Previously disturbed	0.06
LZ_92 (Figure 2, Page 5 of 16)					
Designated helicopter LZs are close to OPGW work areas. Material and personnel will be flown from these locations to the respective structures to complete detaching and attaching of the OPGW to the structure. These sites are used for helicopter operations, including refueling and related support during the OPGW installation.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.24	<i>Larrea tridentata</i> Shrubland Alliance	Undisturbed	0.24
M116-T2 (Figure 2, Page 5 of 16)					
NSWA is the existing disturbed work area proposed to be added to allow for a crane setup to complete the connecting (socking) of the ground wires together. This is an angle structure where the ground wire comes in and dead-ends from both directions at the structure. The crew needs to connect (sock) the ground wire together to allow it to be removed. Angle structures will be reviewed on a case-by-case basis based on the angle the wire that goes around the structure (inside or outside angle). Brackets may need to be developed to assist with the pulling operations. Cranes are preferred at these locations due to the heavy strain on the traveler and adjustments that may need to be made to allow for the "free rolling" of the traveler.	The Proposed Project area is characterized by undeveloped, open desert lands	0.17	<i>Larrea tridentata</i> Shrubland Alliance	Previously Disturbed	0.17
LZ_128 (Figure 2, Page 7 of 16)					
Designated helicopter LZs are close to OPGW work areas. Material and personnel will be flown from these locations	The Proposed Project area is characterized by undeveloped, open desert lands	0.03	Developed (includes existing roads, pullouts)	Previously Disturbed	0.01

Associated Work Areas, Description of Work	Site Condition	Approximate Acreage of Disturbance Per Work Area ¹	Vegetation Type (If Vegetated) or Land Use	Disturbance (Previously Disturbed or Undisturbed)	Approximate Acreage of Disturbance Per Vegetation Type or Land Use
to the respective structures to complete detaching and attaching of the OPGW to the structure. These sites are used for helicopter operations, including refueling and related support during the OPGW installation.			<i>Yucca schidigera</i> Shrubland Alliance	Undisturbed	0.02
M117-T1 (Figure 2, Page 7 of 16)					
NSWA is the existing disturbed work area proposed to be added to allow for a crane setup to complete the connecting (socking) of the ground wires together. This is a ground wire transposition structure where the ground wire comes in and dead-ends from both directions at the structure. The crew needs to connect (sock) the ground wire together to allow it to be removed.	The Proposed Project area is characterized by undeveloped, open desert lands	0.15	<i>Larrea tridentata</i> Shrubland Alliance	Previously Disturbed	0.15
M122-T2 (Figure 2, Pages 8 and 9)					
NSWA is the existing disturbed work area proposed to be added to allow for a crane setup to complete the connecting (socking) of the ground wires together. This is an angle structure where the ground wire comes in and dead-ends from both directions at the structure. The crew needs to connect (sock) the ground wire together to allow it to be removed. Angle structures will be reviewed on a case-by-case basis based on the angle the wire that goes around the structure (inside or outside angle). Brackets may need to be developed to assist with the pulling operations. Cranes are preferred at these locations due to the heavy strain on the traveler and adjustments that may need to be made to allow for the "free rolling" of the traveler.	The Proposed Project area is characterized by undeveloped, open desert lands	0.15	<i>Larrea tridentata</i> Shrubland Alliance	Previously Disturbed	0.15

Associated Work Areas, Description of Work	Site Condition	Approximate Acreage of Disturbance Per Work Area ¹	Vegetation Type (If Vegetated) or Land Use	Disturbance (Previously Disturbed or Undisturbed)	Approximate Acreage of Disturbance Per Vegetation Type or Land Use
M128-T1 (Figure 2, Page 10 of 16)					
SWA is the modified work area is proposed to utilize the entire previously disturbed area for crane setup. In addition, the four outriggers of the crane would encroach on non-disturbed areas (each outrigger pad is 4 feet by 4 feet). The original SWA was revised by taking space identified along the existing main access road and using it for the proposed area around the structure.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.18	Developed (includes roads, homes, ornamental areas)	Previously Disturbed	0.04
			<i>Larrea tridentata</i> - <i>Ambrosia dumosa</i> Shrubland Alliance		0.04
			<i>Larrea tridentata</i> - <i>Ambrosia dumosa</i> Shrubland Alliance	Previously Disturbed	0.08
			<i>Yucca schidigera</i> Shrubland Alliance	Previously Disturbed	0.01
STR-BS1 is the location where equipment will be staged to pull in the new OPGW. These sites can have either the V-Groove, which pulls in and reels in the old ground wire, or the tensioner, which has the new OPGW and spools it out as it is begin pulled in by the V-Groove at the other end of the wire pull.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.28	Developed (includes existing roads, pullouts)	Previously Disturbed	0.05
			<i>Larrea tridentata</i> - <i>Ambrosia dumosa</i> Shrubland Alliance	Previously Disturbed	0.02
			<i>Larrea tridentata</i> - <i>Ambrosia dumosa</i> Shrubland Alliance	Undisturbed	0.19
			<i>Senegalia greggii</i> – <i>Hyptis emoryi</i> – <i>Justicia californica</i> Shrubland Alliance	Undisturbed	0.01
STR-AS1 is the location where equipment will be staged to pull in the new OPGW. These sites can have either the V-Groove, which pulls in and reels in the old ground wire, or the tensioner, which has the new OPGW and spools it	The Proposed Project area is characterized by undeveloped, open desert lands.	0.32	Developed (includes existing roads, pullouts)	Previously Disturbed	0.05
			<i>Larrea tridentata</i> - <i>Ambrosia dumosa</i> Shrubland Alliance	Previously Disturbed	0.01

Associated Work Areas, Description of Work	Site Condition	Approximate Acreage of Disturbance Per Work Area ¹	Vegetation Type (If Vegetated) or Land Use	Disturbance (Previously Disturbed or Undisturbed)	Approximate Acreage of Disturbance Per Vegetation Type or Land Use
out as it is begin pulled in by the V-Groove at the other end of the wire pull.			<i>Larrea tridentata</i> - <i>Ambrosia dumosa</i> Shrubland Alliance	Undisturbed	0.26
M128-T1 SWA to M128-T1 STR-AS1 Footpath is the area for the personnel to walk between the structure and OPGW pulling sites. When connecting the ground wire to the new OPGW, the personnel need to walk the wire between the sites to the respective V-Groove/tensioner to connect (sock) the wires together.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.01	<i>Larrea tridentata</i> - <i>Ambrosia dumosa</i> Shrubland Alliance	Undisturbed	0.01
M128-T1 SWA to M128-T1 STR-BS1 Footpath is the area for the personnel to walk between the structure and OPGW pulling sites. When connecting the ground wire to the new OPGW, the personnel need to walk the wire between the sites to the respective V-Groove/tensioner to connect (sock) the wires together.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.01	<i>Larrea tridentata</i> - <i>Ambrosia dumosa</i> Shrubland Alliance	Undisturbed	0.01
LZ_139 (Figure 2, Page 10 of 16)					
Designated helicopter LZs are close to OPGW work areas. Material and personnel will be flown from these locations to the respective structures to complete detaching and attaching of the OPGW to the structure. These sites are used for helicopter operations, including refueling and related support during the OPGW installation.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.63	<i>Larrea tridentata</i> - <i>Ambrosia dumosa</i> Shrubland Alliance	Previously Disturbed	0.06
			<i>Larrea tridentata</i> - <i>Ambrosia dumosa</i> Shrubland Alliance	Previously Disturbed	0.02
			<i>Larrea tridentata</i> - <i>Ambrosia dumosa</i> Shrubland Alliance	Undisturbed	0.20
			<i>Yucca schidigera</i> Shrubland Alliance	Previously Disturbed	0.02
			<i>Yucca schidigera</i> Shrubland Alliance	Undisturbed	0.33

Associated Work Areas, Description of Work	Site Condition	Approximate Acreage of Disturbance Per Work Area ¹	Vegetation Type (If Vegetated) or Land Use	Disturbance (Previously Disturbed or Undisturbed)	Approximate Acreage of Disturbance Per Vegetation Type or Land Use
LZ-140 (Figure 2, Page 11 of 16)					
Designated helicopter LZs are close to OPGW work areas. Material and personnel will be flown from these locations to the respective structures to complete detaching and attaching of the OPGW to the structure. These sites are used for helicopter operations, including refueling and related support during the OPGW installation.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.04	Developed (includes existing roads, pullouts)	Previously Disturbed	0.02
			<i>Larrea tridentata</i> - <i>Ambrosia dumosa</i> Shrubland Alliance	Previously Disturbed	0.01
			<i>Larrea tridentata</i> - <i>Ambrosia dumosa</i> Shrubland Alliance	Undisturbed	0.01
M164-T1 (Figure 2, Page 15 of 16)					
NSWA is the disturbed work area proposed to be added to allow for a crane setup to complete the connecting (socking) of the ground wires together. This is a ground wire transposition structure where the ground wire comes in and dead-ends from both directions at the structure. The crew needs to connect (sock) the ground wire together to allow it to be removed.	The Proposed Project area is characterized by undeveloped, open desert lands.	0.21	<i>Larrea tridentata</i> Shrubland Alliance	Previously Disturbed	0.21
NOTE: ¹ The numbers in this column have been rounded from the last column, Approximate Acreage of Disturbance Per Vegetation, and therefore may not be exact.					

3.2 Project Activity Schedule

Construction will start May 6, 2021, near the California/Nevada border area on the Lugo-Mohave transmission line and continue west to M68-T4 (western most existing structure under CPUC jurisdiction). The overhead transmission construction schedule will be completed continuously while the line is de-energized. However, the line cannot be de-energized during summer months (July through September) and will need to be put back into service. The construction schedule on the Lugo-Mohave transmission line will include a summer hiatus.

The schedule for the overhead sections being completed on non-federal (CPUC) lands is identified below.

Project Component	Construction Start Date	Operation Start Date
OPGW Construction on the Lugo-Mohave Transmission Line from California/Nevada border area to M68-T4 (western most existing structure under CPUC jurisdiction)	May 2021	November 2021

3.3 Compliance with Mitigation Measures and Applicant-Proposed Measures

Refer to Appendix A: Applicant Proposed Measures and Mitigation Measures.

3.4 OPGW Installation and Construction

3.4.1 Preconstruction Activities

OPGW construction will mostly be contained within the existing overhead transmission line ROWs; therefore, minimal site preparation will be required for this project component. Clearing and or drive/crush of vegetation will be conducted at work sites of the overhead work areas to provide sufficient work space. A few sites may need minor grading to provide a flat level work space. Stormwater Pollution Prevention Plan (SWPPP) requirements will be implemented (i.e., best management practices [BMP]) prior to clearing or minor grading. Rumble plates may be placed on existing dirt access road that provide access to the overhead sites.

3.4.2 Access Roads

Construction improvements included within this NTPR will not require the construction of new access roads. Access will be provided from existing utility access roads and public access roads to/from the Project site.

3.4.3 Construction Activities

The table included under Section 3.1 and the corresponding maps (Figure 2) contain information on the location of construction activities (by existing structure number or helicopter LZ number), the associated work areas, a description of construction activity within those work areas and a reference to the map page where those are shown. In addition, the terms describing those work areas are defined in Section 3.1. For those work areas shown on the maps or described in the table as Area to Be Removed or Area to Be Added or New SWA, Beta Engineering is proposing to modify the SWA (sites shown in the following in table) by including all the previously disturbed areas around the structure site. The SWA was reconfigured to provide a net zero change in disturbance totals at these sites (took area from main access road and moved to area around structure).

OPGW Construction	Major Construction Activities
OPGW Construction on the Lugo-Mohave Transmission Line	Remove OHGW and replace with OPGW on the Lugo-Mohave Transmission line Modify and strengthen the ground wire peak of existing lattice steel towers where OPGW splices would occur (some towers also require minor modifications to the steel in the tower body)

Typical daily construction activities will include use of construction trailers and portable restrooms, personal parking for construction personnel, export of removed wire, and installation of OPGW-related components and structure modifications. Other daily construction activities may include refueling and equipment maintenance and repair, containment of waste disposal, and component assembly. Equipment and vehicles that may be used during construction include the following:

- Hughes 530F Helicopter
- Fuel, helicopter support truck
- Backhoe-loader
- Boom/crane truck
- R/T Crane
- Bullwheel puller
- D8 Cat
- 744 front-end loader
- Manlift/bucket truck
- Skid steer mulcher
- Static truck/tensioner
- Wire truck/trailer
- Utility vehicle
- 1-ton, ¾-ton trucks 4x4 pickup truck
- Lowboy truck, trailer
- Splicing lab vehicle
- Worker commuter vehicles

The estimated construction workforce required for construction is summarized in Appendix B: Construction Equipment and Workforce Estimates. Construction will be performed by either SCE construction crews or contractors. Multiple crews will work concurrently when possible; however, the estimated deployment and number of crew members will vary depending on factors such as material and equipment availability, weather, and construction scheduling. It is anticipated that approximately 44 overhead construction personnel will be working at the Project site(s) on any given day. The landscape contractor is responsible for implementing mitigation plans during construction such as the Special Status Plant Salvage and Relocation Plan, Cacti and Yucca Salvage and Relocation Plan, and Habitat Restoration and Revegetation Plan (HRRP). Approximately 20 landscape construction personnel will be working at the Project site(s) on any given day.

Materials associated with construction will be delivered via truck by vendors and suppliers directly to the site or to the nearest staging yard and/or substation for storage and distribution to the specific sites.

Any land that may be temporarily disturbed as a result of this Project will be restored in accordance with the HRRP following completion of the OPGW construction sitework.

Installation of overhead telecommunication facilities will be implemented by attaching the fiber optic cable to structures and replacing one of two existing OHGWs. The OPGW, which consists of a fiber optic cable core surrounded by strands of steel and aluminum wire, will be pulled into position using the existing OHGW.

Two trucks will be used for the two OPGW pull sites; one site will have a puller and one site will have a tensioner with the OPGW reel set at each end of the cable. The fiber optic OPGW cables are then pulled between two selected splice structures along the existing Lugo-Mohave transmission lines.

Cable splices will be required at towers located at the extent of each cable length. The majority of the lattice steel towers with new OPGW splices will require structure modifications for the new configuration or for strength, which include ground wire peak modifications, body modifications, and/or bent steel repairs.

3.4.3.1 Other Activities

Beta Engineering requests approval to walk (footpaths) in unapproved Project areas to pull the ground wire/OPGW during installation. A short definition of footpath has been included in Section 3.1 and further detail is included in this section. A description of why they are necessary and what construction activity would be accomplished by walking footpaths is included in the table in Section 3.1 for each area for which they are proposed. Lastly, they are referenced and shown on the maps.

Footpaths are shown on maps and listed on the table in Section 3.1 for OPGW construction work at the following existing structure numbers:

- M78-T4 (Figure 2, Page 5 of 16)
- M128-T1 (Figure 2, Page 10 of 16)

Background

Pulling the ground wire/OPGW lead line by hand will most likely be required in every wire pull but will not be required in every span. In order to pull out the old ground wire and pull in the new OPGW, they need to be connected at each end to the appropriate machine (V-groove or tensioner). The workers will walk the line from the structure to the vehicles parked in Project-approved areas.

Protocol

The protocol will be as follows:

- The surveyors and will coordinate with EPG and review project maps and data to ensure that areas designated as Environmentally Sensitive Areas (ESAs) will not be impacted.
- The EPG Biological Monitors, who have received agency (including CPUC approval that they are qualified to work on the Project in the role of Biological Monitor) will conduct sweeps of the areas and a 25-foot buffer.
- The EPG Biological Monitors will discuss with the surveyor any resources in the area such as burrows or sensitive plants.
- All access will be by foot traffic. Equipment will be the lead line, ground wire, or OPGW. Occasionally the line/wire may touch the ground as it is being pulled by hand.

- The crews will gently rake the ground to remove evidence of “visible paths.”
- The EPG Biological Monitors will conduct a final sweep of the site prior to mobilizing to the next span.

On longer foot paths to the vehicles, the ground wire may have occasion to be drug on the ground. On those longer paths, the protocol will be as follows:

- The construction foreman and the Biological monitor will consult and determine where the wire may make contact with the ground.
- The foreman and Biological Monitor will develop a sketch of the area and select a path to avoid sensitive resources.
- If there are no sensitive resources, work can proceed with no further action required.
- If there are sensitive resources along the path and 25-foot buffer described above, the following additional steps are required.
- The contractor will bring additional contractor personnel to the work area to carry the wire.
- If contact is made with the ground:
 - The Biological Monitor will record the location on the sketch and confirm sensitive resources are not impacted;
 - If the Authorized Biologist or Biological Monitor determines there is a risk to sensitive resources, the foreman and monitor will select an alternate path; and
 - The Authorized Biologist or Biological Monitor will identify that contact was made and record the contact in FRED.
- Impacts to sensitive resources, if any, will be reported in FRED.

3.4.4 Right-of-Way Access Pre-Sunrise and Post-Sunset

OPGW construction work is not anticipated to occur at night. However, crews may travel to and setup at sites before sunrise or clean up and travel from sites after sunset. The Project has submitted a request to the applicable local authority having jurisdiction to travel to the work areas before official sunrise under the direction of the Authorized Biologist during periods of sufficient sunlight. Vehicle escorts will be provided as necessary as determined by the Authorized Biologist in accordance with the Desert Tortoise Take Avoidance and Minimization Plan. If it becomes necessary, the Project will also submit a request to travel from the sites after sunset during periods of sufficient sunlight.

3.4.5 Helicopter Use

Helicopters will be used during the OPGW installation primarily for cable stringing, including ferrying material, equipment, or personnel. Helicopter operations, including refueling and related support, typically occur at staging yards or helicopter LZs close to OPGW construction. Helicopters may also use designated helicopter LZs situated throughout the Project area along the ROW. In emergency situations, when an LZ or staging yard cannot be safely reached, a helicopter may land on any access or spur road.

Helicopters typically used for OPGW stringing activities include light and medium duty helicopters. Potential bases for operation would include the Ludlow Airport or others in close proximity to the Project site. Flight paths would be determined immediately prior to construction by the helicopter

contractor and filed with the appropriate authorities as required. The Project received approval of the Helicopter Use Plan on November 17, 2020.

Helicopter LZs are listed and described in the table in Section 3.1 in the order they appear on the maps (Figure 2) along with other existing structures and the associated work areas. In addition, LZ_93 is shown on the map with the Ludlow Alternate Staging Yard because of its proximity to that yard. Below is a complete list of LZs included in this document and their approximate location in reference to a project component.

Helicopter Landing Zone (LZ)	Approximate Location
LZ_83	West of M69-T1. See Figure 2 Page 1 and 2 of 16.
LZ_92	Southwest of M78-T4. Figure 2 Page 5 of 16.
LZ_93	Ludlow Airport. LZ_93 (north side) and the Ludlow Alternate Staging Yard (south side) are across Interstate 40 from each other. See Figure 3 Page 1.
LZ_128	Approximately 500 feet northeast of M116-T5. See Figure 2 Page 10 of 16.
LZ_139	In close proximity and south of M128-T1. See Figure 2 Page 10 of 16.
LZ_140	In close proximity and south of M128-T2. See Figure 2 Page 11 of 16.

3.4.6 Telecommunications

The OPGW wire will be spliced at several tower sites, including the mid-line series capacitor. The splice structure locations are M68-T4, M69-T1, M78-T4, and M128-T1. In addition, a one- or two-person crew will access these locations to test the fibers after the OPGW has been installed. This crew will use the designated SWA at each of these locations. No additional telecommunication activities are planned for this project component.

4 Staging Yard Construction

This CPUC NTPR3 includes construction of the Ludlow Alternate and Fenner Staging Yards. The staging yards will serve as a reporting location for workers, vehicle and equipment parking, and material storage during project execution. The yard may be fenced and have construction trailers for supervisory and clerical personnel and may be lit for staging and security. Normal maintenance and refueling of construction equipment would be conducted at the yard; refueling and storage of fuels would be in accordance with the SWPPPs.

The need for temporary power would be determined based on the type of equipment and facilities to be used for construction. If existing distribution lines are available, a temporary service and meter may be used to provide electrical power at the yard. If it is determined that temporary power is not available, then a portable generator may be used intermittently for electrical power.

Materials commonly stored would include, but not be limited to, construction trailers; construction equipment; portable sanitation facilities; electrical equipment such as circuit breakers, steel/wood poles, OHGW or OPGW reels, marker balls, hardware, insulators, and cross arms; signage; consumables (e.g., fuel); waste materials for salvaging, recycling, or disposal; and BMP materials (e.g., straw wattles, gravel, and silt fences).

The staging yards may also serve as assembly points for crews from where they would be transported to work sites. The majority of materials associated with the construction will be delivered by truck to the

staging yard for subsequent distribution to work areas. Some materials may be delivered directly to construction work areas.

4.1 Site Locations and Conditions

The Fenner Staging Yard is located on the north side of I-40, approximately 10 miles south of Goffs, California.

The Ludlow Alternate Staging Yard is located on the south side of I-40 at the unincorporated town of Ludlow.

See Figure 3, pages 1 and 2 for the locations of the staging yards. The site conditions and affected areas for each site are noted in the table that follows.

Staging Yards				
Construction Location	Site Conditions	Approximate Disturbed Acres	Vegetation Impacts	
			Vegetation Type (If Vegetated) or Land Use	Acres
Temporary Disturbance				
Fenner Staging Yard	The Proposed Project area is characterized by mostly undeveloped and open lands, utilities, and infrastructure.	5.39	Developed (includes roads, homes, ornamental areas) – Previously Developed	5.39
LZ_93	Designated helicopter LZs are close to OPGW work areas. Material and personnel will be flown from these locations to the respective structures to complete detaching and attaching of the OPGW to the structure. These sites are used for helicopter operations, including refueling and related support during the OPGW installation.	0.19	<i>Larrea tridentata</i> - <i>Ambrosia dumosa</i> Shrubland Alliance – Undisturbed	0.19
Ludlow Alternate Staging Yard	The Proposed Project area is characterized by mostly undeveloped and open lands, utilities, and infrastructure.	3.18	Barren - Not Developed Developed (includes roads, homes, ornamental areas) – Previously Developed	3.18

4.2 Project Activity Schedule

This staging yards will be used to support the tower raise construction schedule and throughout the duration of the ELM Project.

Project Component	Construction Start Date	Operation Start Date
Ludlow Alternate Yard	May 2021	November 2021
Fenner Yard	May 2021	November 2021



General Reference Features

- Existing Access Non-Paved
- Existing Access Paved
- Helicopter Landing Zone
- Material Yard

Jurisdiction

- Bureau of Land Management - Nevada
- Bureau of Land Management - California
- Bureau of Reclamation
- National Park Service
- California Public Utilities Commission (CPUC)
- State Boundary

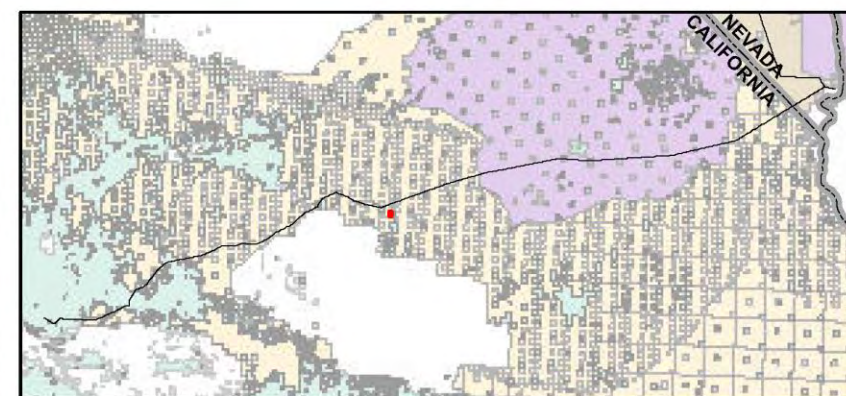
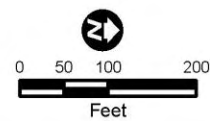
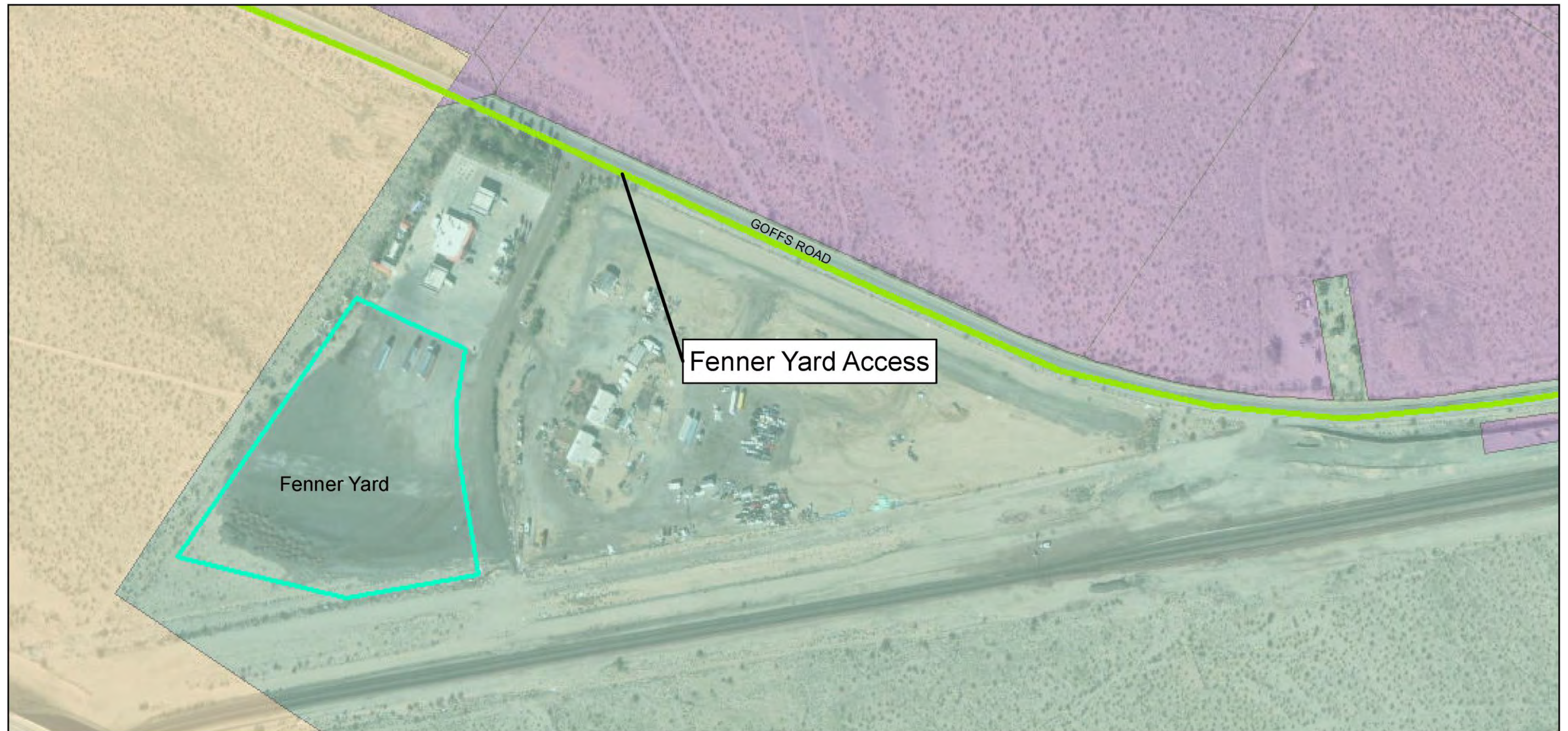




Figure 3
OPGW Installations CPUC Oversight
M68 to California State Line
 CPUC-NTPR-3 OPGW Installations
 Page 1 of 2
ELDORADO-LUGO-MOHAVE
SERIES CAPACITOR PROJECT

May 10, 2021 **SOUTHERN CALIFORNIA EDISON**
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General Reference Features

-  Existing Access Paved
-  Material Yard

Jurisdiction

-  Bureau of Land Management - Nevada
-  Bureau of Land Management - California
-  Bureau of Reclamation
-  National Park Service
-  California Public Utilities Commission (CPUC)
-  State Boundary

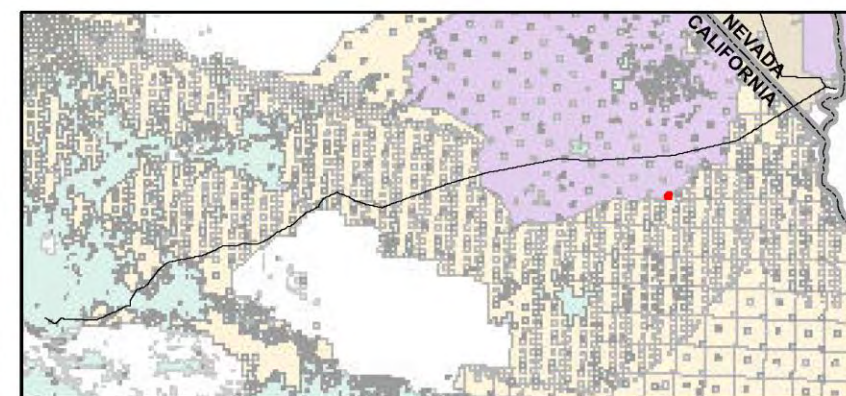
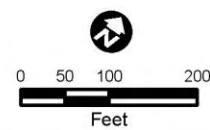



Figure 3
OPGW Installations CPUC Oversight
M68 to California State Line
 CPUC-NTPR-3 OPGW Installations
 Page 2 of 2
ELDORADO-LUGO-MOHAVE
SERIES CAPACITOR PROJECT
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4.3 Compliance with Mitigation Measures and Applicant Proposed Measures

Refer to Appendix A: Applicant Proposed Measures and Mitigation Measures.

4.4 Staging Yard – Major Construction Activities

4.4.1 Access Roads

Ludlow Alternate Yard: There is currently existing access to this staging yard off of old Route 66 (on south side of highway – See Figure 3, page 1)

Fenner Yard: There is currently existing access thru an existing commercial gas station/store lot on the south side of old Route 66 (between I-40 and Route 66 – See Figure 3, page 2)

4.4.2 Preconstruction Activities

Site preparation required for the staging yard may include vegetation clearing and grubbing with minimal grading to provide drainage berms for stormwater management, and SWPPP requirements will be implemented. Onsite parking will be provided for construction personnel.

4.4.3 Construction Activities

Typical daily construction activities will include use of construction trailers and portable restrooms and personal parking for construction personnel. Other construction activities may include refueling and equipment maintenance and repair, material stockpiling, containment of waste disposal, and structure assembly.

Workers may park personal vehicles onsite during construction, prior to traveling to Project work area sites. Multiple crews will work concurrently when possible; however, the estimated deployment and number of crew members will vary depending on factors such as material and equipment availability, weather, and construction scheduling. It is anticipated that a total of approximately 20 construction personnel will be working at the site on any given day.

4.4.4 Equipment

Both staging yards will be used for equipment storage and mobilization. Equipment at this yard may include:

- Backhoe-loader
- Boom/crane truck
- R/T Crane
- Bullwheel puller
- D8 Cat
- 744 front end loader
- Manlift/bucket truck
- Skid steer mulcher
- Static truck/tensioner
- Wire truck/trailer
- Utility vehicle

- 1-ton, ¾-ton trucks, 4x4 pickup truck
- Lowboy truck, trailer
- Splicing lab vehicle
- Worker commuter vehicles

4.4.5 Night Use

In the event that night work is conducted, night lighting will comply with MM AES-4.

4.4.6 Helicopter Use

Helicopter use is not required to construct the Ludlow Alternate or Fenner staging yards; however, the yards may be used as fly yards for helicopters throughout the course of the ELM Project.

4.4.7 Temporary Facilities

Typical daily construction activities will include use of construction trailers and portable restrooms, and personal parking for construction personnel. Temporary electrical equipment may be installed for the construction trailer, if needed. Connections will be established at existing distribution poles and/or service provider connections.

4.4.8 Water Use

Construction water will be required for dust control at this project site. Construction water will be obtained from a CPUC approved water source. The Fort Cady California Corporation in Newberry Springs would likely provide water for construction activities. This groundwater source is a private groundwater well. NTPR-1 contained information on this source of water and a map of its location.

4.4.9 Other Activities

Other daily construction activities may include refueling and equipment maintenance and repair, material stockpiling, containment of waste disposal, and structure assembly.

5 Checklist of Required Permits, Plans, and Other Project Approvals

5.1 Environmental/Biological/Cultural Permits

Permit	Required	Approval Date	Applicability/Status
Federal			
Clean Water Act (CWA) Section 404	√	7/29/20	CWA Section 404 approved.
CWA Section 401	√	11/13/20	CWA Section 401 approved.
CWA Section 402 National Pollutant Discharge Elimination System (NPDES) Comprehensive Procurement Guidelines (CPG)	√	8/17/20	Section 402 Construction General Permit(s) and SWPPP are approved.

Permit	Required	Approval Date	Applicability/Status
Paleontological Resources Use Permit	√	11/17/20	The PRMP has been approved by all agencies.
Section 7 Consultation	√	6/30/20	Section 7 Consultation is complete.
Section 106 Consultation, National Historic Preservation Act	√	12/11/20	Cultural Resources Management Plan (CRMP) has been approved by all agencies. This plan has reached completion of the 30-day review period by the Tribes.
Field Work Authorization (Archaeology)	Y	Complete	Fieldwork authorization has been acquired by the BLM
Field Work Authorization (Paleontology)	Y	Complete	Fieldwork authorization has been acquired by the BLM
State			
Certificate of Public Convenience and Necessity (CPCN)	√	8/28/20	Proposed decision has been issued.
2081 Incidental Take Permit		9/18/20	SCE acquired an Incidental Take Permit (ITP) pursuant to Section 2081 of the California Fish and Game Code.
NPDES Municipal Storm Water (MS4-I, II)	√	8/17/20	Permits and SWPPPs have been prepared and approved and will be implemented.
Encroachment/Traffic/Flood Control/Pipeline Permit	√	4/15/21	An encroachment permit is associated with the Project components and has been approved by California Department of Transportation.
Local			
Dust Control Permit	√	7/28/20	A dust control operating permit was obtained from the Mohave Desert Air Quality Management District (MDAQMD).
Generator Permit		N/A	A generator permit is not required for the components subject to this NTPR-3.
Hazardous Materials Permits	√	To be submitted upon arrival to site	Engineering, Procurement, and Construction Contractor will maintain a hazardous materials inventory for materials used for construction upon site delivery.
Grading Permit		N/A	Project received an exemption for a grading permit from San Bernardino County. Grading is not required for the components subject to this NTPR-3.

Permit	Required	Approval Date	Applicability/Status
Building Permit Fencing		N/A	Project received an exemption for a building permit from San Bernardino County. Permanent fencing is not required for the components subject to this NTPR-3.
Building Permit – Mechanical Electrical Equipment Room (MEER)		N/A	Project received an exemption for a building permit from San Bernardino County. Building construction is not required for the components associated with this NTPR-3.
Demolition Permit		N/A	There is no demolition associated with the components of this CPUC NTPR-3 and Project received an exemption for a demolition permit from San Bernardino County.
Encroachment Permit	Y	4/15/21	CalTrans issued a permit for US95 Crossing
Other			
License, Easement, or Agreement (Railroad Permits)	√	7/20/20	Railway Permit has been approved.
Source: CPUC 2020			

5.1.1 Mitigation Plans and Reports

Plan/Report	Applicable MMCRP Measure(s)	Applicable	Approval Date	Notes
Burrowing Owl Management and Passive Relocation Plan (BOMPRP)	MM BR-11	√	11/24/2020	This plan has been approved by the CPUC
Cultural Resource Management Plan/Cultural Resource Protection Plan (CRMP/CRPP)	MM CR-1	√	12/11/2020	This plan has been approved by the CPUC.
Horizontal Direction Drill (HDD) Fluid Management Plan	MM HWQ-2		N/A	An HDD Fluid Management Plan is not required for work associated with components of this NTPR-3.
Alternating Current Interference Analysis	MM UT-1		N/A	An interference analysis is not required for work associated with components of this NTPR-3.
Induction Study	MM UT-3		N/A	An induction study is not required for work associated with components of this NTPR-3.

Plan/Report	Applicable MMCRP Measure(s)	Applicable	Approval Date	Notes
Erosion Control Plan (with Grading Plans)	MM HWQ-1	√	8/17/2020	Project will be completed in accordance with Erosion Control and Grading Plans. Erosion Control Plans and Grading Plans are incorporated into the Project SWPPP. The SWPPP's have been approved by the RWQCB's.
Fire Management Plan	MM WF-1	√	11/17/2020	This plan has been approved by the CPUC.
Dust Control Plan	MM AQ-1	√	11/17/2020	This plan has been approved by the CPUC.
Habitat Restoration and Revegetation Plan (HRRP)	MM BR-4	√	3/19/21	This plan has been approved by the CPUC.
Hazardous Materials, Waste Management Plan (HMWMP)	MM HMH-1	√	10/30/2020	This plan has been approved by the CPUC.
Helicopter Use Plan	MM T-3	√	11/17/2020	This plan has been approved by the CPUC.
Integrated Weed Management Plan (IWMP)	MM BR-5	√	3/16/21	This plan has been approved by the CPUC.
Nesting Bird Management Plan (NBMP)	MM BR-10	√	12/11/2020	This plan has been approved by the CPUC.
Paleontological Resource Mitigation and Monitoring Plan (PRMMP)	MM PAL-3	√	11/17/2020	This plan has been approved by the CPUC.
Raven Management Plan (RMP)	MM BR-9	√	11/17/2020	This plan has been approved by the CPUC.
Special Status Plant Salvage and Relocation Plan (SSPSRP)	MM BR-6	√	1/27/2021	This plan has been approved by the CPUC.
Cacti and Yucca Salvage and Relocation Plan (CYSRPP)	MM BR-6	√	12/11/2020	This plan has been approved by the CPUC.
Stormwater Pollution Prevention Plan (SWPPP)	MM HWQ-2	√	8/17/20	The SWPPP's have been approved by the RWQCB's.
Project Design and Surface Treatment Plan (PDSTP)	MM AES-1	√	9/10/2020	This plan has been approved by the CPUC.
Worker Environmental Awareness Program (WEAP)	MM BR-2	√	9/10/2020	This plan has been approved by the CPUC.
Construction Notice Mailer	MM N-2	√	9/10/20	A Construction Notice Mailer is approved.
Source: CPUC 2020				

5.1.2 Coordination/Notification

Coordination	Applicable MMCRP Measure(s)	Required	Completion Date	Notes
Fire Agencies	MM WF-1	√	Complete	The Fire Management Plan has been submitted to the applicable fire agencies. Coordination with fire agencies will be implemented based on the Project Fire Management Plan.
Emergency Service Providers (Coordination)	MM T-1		N/A	Impacts to roadways are not anticipated for the components subject to this NTPR-3; therefore, coordination with emergency service providers is not required.
Recreation Area (Notification)	MM AES-2 MM CR-3		N/A	No recreation areas will be affected during this work; therefore, notification to recreation areas is not required.
Right-of-Way Buffer (Notification)	MM T-1		4/15/2021	A Traffic Control Plan was submitted to CalTrans and approved
Source: CPUC 2018				

5.2 Required Surveys

5.2.1 Biological

Survey	Applicable MMCRP Measure(s)	Required	Completion Date	Notes
Nesting Birds	MM BR-10	√	To be completed.	Preconstruction clearance surveys will be conducted 7 days prior to construction as part of the preconstruction checklist.
Special – Status Plants	MM BR-6	√	April 2021	These surveys were conducted in areas where special status plants had previously been recorded or suitable habitat known to occur.
Cacti and Yucca	MM BR-6	√	November 2020	These surveys were completed during the installation of work area staking. Cacti and Yucca within work areas are marked for avoidance or for salvage. Results are provided in the CYSRP.
Desert Tortoise	MM BR-4	√	To be completed	Surveys to be completed within 7 days prior to construction.
Burrowing Owl	MM BR-11	√	To be completed	Surveys to be completed within 7 days prior to construction.
Source: CPUC 2020				

5.2.2 Cultural

Survey	Applicable MMCRP Measure(s)	Required	Completion Date	Notes
Class III Cultural Resources Inventories for the ELM Project	MM-CR-1 MM-CR-2 MM-CR-3	√	2018	Class III Cultural Resources Inventories for the ELM Project were completed in 2017, and the report was completed in 2018. Surveys were positive for cultural resources.
Source: CPUC 2020				

5.2.3 Paleontological

Survey	Applicable MMCRP Measure(s)	Required	Completion Date	Notes
Paleontological surveys for the ELM Project	MM-PAL-3	√	2018	Paleo surveys for the ELM Project were completed in 2017 and 2018. No paleontological resources were observed during the surveys of these Project areas. Mitigation includes preparation of a PRMMP prior to construction and monitoring of geologic units with a PFYC of U, 4, and 5
Source: CPUC 2020				

5.2.4 Tribal

Survey	Applicable MMCRP Measure(s)	Required	Completion Date	Notes
Tribal Consultation based on Class III Cultural Resources Survey	MM-CR-4 MM CR-5 APM-TCR-2	√	Findings under Section 106 Issued 5/18/20	A tribal participation plan is included in the CRMP and was approved by the tribes on 12/04/20.
Source: CPUC 2020				

6 Monitoring Required

Type	Required	Notes
Biological	√	Preconstruction surveys will be conducted prior to the start of construction. Biological monitoring will be required as specified in the Biological Opinion.
Cultural	√	Cultural resource monitoring will be required as specified in the CRMP.
Paleontological	√	Paleontological resource monitoring will be required as specified in the PRMMP.
Tribal	√	Tribal monitoring will be required as specified in the CRMP.
Source: CPUC 2020		

7 Anticipated Notice to Proceed Conditions

Requirement	Anticipated Completion Date	Notes
MM BR-2	Prior to workers arriving onsite	All new project personnel will receive project-approved WEAP training
MM BR-1	Preconstruction	Preconstruction surveys will be completed before activities start for the project components of this NTPR-3.
MM BR-10	Preconstruction	Nesting Bird surveys will be conducted prior to construction activities during nesting bird surveys in the project components of this NTPR-3. Appropriate precautions will be taken to avoid disturbance.
MM BR-11	Preconstruction	Burrowing owl surveys will be conducted for suitable habitat before construction begins.
MM BR-6	Preconstruction	Surveys for special-status plants, including cacti and yucca, will be conducted prior to construction.
MM BR-13	Preconstruction	American badger, ringtail, and desert kit fox surveys will be completed prior to preconstruction.
MM CR-2	Preconstruction	The WEAP training will address cultural resources training.
MM HWQ-1	Preconstruction	Erosion Control Plans will be implemented to comply with California requirements.
Source: CPUC 2018		

8 References

State of California Public Utilities Commission (CPUC). 2020. Appendix F: Stipulations and Mitigation Measures. Available at: <https://eplanning.blm.gov/epl-front-office/projects/nepa/1504053/20016524/250022003/Appendix E Mitigation Measures CMA s.pdf>. Accessed on April 27, 2020.

**Appendix A: Applicant Proposed Measures
and Mitigation Measures**

A1 Eldorado-Lugo-Mohave Series Capacitor Project Notice to Proceed Request Mitigation Measures

This section describes the applicant-Proposed Measures (APM) and Mitigation Measures (MM).

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
Aesthetics			
MM AES-1	<p>Minimize visual contrast in project design. In the final design of approved project structures, SCE shall use design fundamentals that reduce the visual contrast of new facilities with the characteristic landscape. These include surface treatments; siting and location; reduction of visibility; repetition of form, line, color, and texture of the landscape; and reduction of unnecessary disturbance. New and modified transmission structures shall be of a dulled galvanized steel consistent with that of existing structures. SCE shall treat the surfaces of other structures and new buildings visible to the public such that: (a) their colors minimize visual contrast by blending with the characteristic landscape colors; and (b) their colors and finishes do not create excessive glare. The steel used to repair or strengthen structures, new steel structures, and conductors, and OPGW shall have surfaces that are non-specular and non-reflective. Project elements with colored surfaces shall be in hues and tones that do not contrast with the surrounding landscape and are consistent with the palette of natural colors that occur in the area.</p> <p>SCE shall provide for review by the CPUC, BLM, and NPS, a draft Project Design and Surface Treatment Plan describing the siting, placement, and other design considerations to be employed to minimize Proposed Project contrast. The draft plan must explain how the design will minimize visual intrusion and contrast by effectively blending earthwork, vegetation manipulation, and facilities with the landscape. The Project Design and Surface Treatment Plan shall describe the colors and textures to be applied to all new facility structures, buildings, walls, fences, and components to be constructed.</p> <p>The draft Project Design and Surface Treatment Plan shall be submitted at least 60 days prior to the start of construction. If the CPUC notifies SCE that revisions to the plan are needed, SCE shall within 30 days of receiving that notification, prepare and submit for review and approval a revised plan to the CPUC.</p>	<p>SCE to submit PDSTP for review and approval at least 60 days prior to construction.</p> <p>Applicable for tower raising at M14-T4</p>	N/A
MM AES-2	<p>Screen construction activities from view. To reduce significant impacts associated with construction yards, staging areas, and material and equipment storage areas shall be visually screened using temporary screening fencing, with the exception of</p>	For exempt project areas, request to be submitted	N/A

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
	<p>construction yards, staging areas, and material and equipment storage areas on existing substation properties. Fencing will be of an appropriate structure, material, and color for each specific location. This requirement shall not apply if SCE can demonstrate that construction yards are located away from areas of high public visibility including public roads, residential areas, and public recreational facilities or the yards are in areas where high winds pose a risk of the screening detaching and creating a hazard. For any site that SCE proposes to exempt from the screening requirement, SCE shall define the site on a detailed map demonstrating its visibility from nearby roads, residences, or recreational facilities to the agency having jurisdiction over the land (CPUC, BLM, or NPS) for review and approval at least 60 days prior to the start of construction at that site.</p>	<p>60 days prior to construction at that site.</p>	
MM AES-3	<p>Minimize vegetation removal and ground disturbance. Only the minimum amount of vegetation necessary for the construction of structures and facilities shall be removed during construction. In particular, vegetation within the ROW and ground clearing at the foot of each tower and between towers shall be limited to the clearing necessary to comply with requirements of CPUC General Order 95 and other regulatory requirements. Scars from temporary work areas and access road may be highly visible when located on hill slopes and along ridges, or when visible from elevated vantage points. In order to reduce visual impacts, the boundaries of all areas to be disturbed shall be delineated consistent with the requirements of Biological Resources Mitigation Measure BR-3. Staking, flagging, or other appropriate means shall define construction work areas, such as capacitor site grading areas, staging yards, and pulling sites. Stakes and flagging shall be installed before construction and in consultation with the Project Biologist and the agency's Environmental Monitor or Visual Specialist. Areas staked or flagged shall be as small as possible in order to minimize the visibility of ground disturbance from sensitive viewing locations such as roads, trails, residences, and recreation facilities and areas. Parking areas and staging and disposal site locations shall be similarly located in areas approved by the Project Biologist and the agency's Environmental Monitor or Visual Specialist prior to the start of construction. All disturbances by Proposed Project vehicles and equipment shall be confined to the staked and flagged areas.</p>	<p>Minimization of vegetation removal and ground disturbance during construction. CPUC EM to validate construction area staking.</p>	
MM AES-4	<p>Minimize night lighting at new project facilities. At the project's new in-line series capacitors and fiber optic repeater facilities, SCE shall avoid night lighting where possible and minimize its use under all circumstances. To ensure this, SCE shall implement the following general principles and specifications:</p>	<p>CPUC EM to validate that light minimization measures have been incorporated.</p>	

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
	<ul style="list-style-type: none"> • When used, portable truck-mounted lighting shall point away from roads and from residences within 1,000 feet. • White lighting (metal halide & LED) (a) shall only be used when necessitated by specific work tasks; and (b) shall be less than 5000 Kelvin color temperature. • All lamp locations, orientations, and intensities shall be the minimum needed for safety and security. • Light fixtures that could be visible from beyond project facility boundaries shall have cutoff angles sufficient to prevent lamps and reflectors from being visible beyond the project facility boundary, including security lighting. • If security lighting is installed, motion sensors are to be used to activate the security lighting; lights shall operate continuously only when the area is occupied. • All temporary construction lighting, including at yards, and all permanent exterior lighting shall include: (a) lamps and reflectors that are not visible from beyond the construction site or facility including any off-site security buffer areas; (b) lighting that does not cause excessive reflected glare; and (c) directed lighting that does not illuminate the nighttime sky, except for required FAA aircraft safety lighting, if required. <p>Lighted nighttime maintenance is to be minimized or avoided as a routine practice and should occur only during emergencies.</p>		
Air Quality			
APM AIR-1	<p>Fugitive Dust. During construction, fugitive dust would be controlled by implementing the following measures:</p> <ul style="list-style-type: none"> • Surfaces disturbed by construction activities would be covered or treated with a dust suppressant or water until the completion of activities at each site of disturbance. • Inactive disturbed (e.g., excavated or graded areas) soil and soil piles would be sufficiently watered or sprayed with a soil stabilizer to create a surface crust or would be covered. 	Implement measures during construction	Measures to be implemented during construction

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
	<ul style="list-style-type: none"> Drop heights from excavators and loaders would be minimized to a distance of no more than 5 feet. Vehicles hauling soil and other loose material would be covered with tarps or maintain at least 6 inches of freeboard. Within Nevada, vehicle speeds on unpaved traffic and parking areas would be restricted to 15 miles per hour. In California, vehicle speeds on unpaved roadways would adhere to all posted speed limits. Within Nevada, unpaved non-public traffic and parking areas designated for utilization during Proposed Project construction would be effectively stabilized to control dust emissions (e.g., using water or chemical stabilizer/suppressant). In California, unpaved non-public traffic and parking areas designated for utilization during Proposed Project construction would be effectively stabilized to control dust emissions with a chemical stabilizer/suppressant. 		
APM AIR-2	Tier 4 Engines. Off-road diesel construction equipment with a rating between 100 and 750 horsepower would be required to use engines compliant with the U.S. Environmental Protection Agency’s final Tier 4 non-road engine standards. In the event that a Tier 4 engine is not available, the equipment would be equipped with a Tier 3 engine and documentation would be provided from a local rental company stating that the rental company does not currently have the required diesel-fueled, off-road construction equipment, or that the vehicle is specialized and is not available to rent. Similarly, if a Tier 3 engine is not available, that equipment would be equipped with a Tier 2 or 1 engine, and documentation of unavailability would be provided.	Implement measure during construction	Measure to be implemented during construction
APM AIR-3	Idling. Equipment would not be left idling in excess of five minutes, except when idling is required for the equipment to perform its task or has a California clean-idle sticker.	Implement measure during construction	Measure to be implemented during construction
APM AIR-4	Equipment Maintenance. Diesel engines would be maintained in good working order and according to manufacturer’s specifications to reduce emissions.	Implement measure during construction	Measure to be implemented during construction
APM AIR-5	Ridesharing. Workers would be encouraged to carpool to work sites, and/or utilize public transportation for employee commutes.	Implement measure during construction	Measure to be implemented during construction
MM AQ-1	Prepare and implement a Dust Control Plan. SCE shall minimize visible fugitive dust emissions by implementing the following dust control measures derived from MDAQMD Rule 403.2. Prior to commencing earth-moving activity, SCE shall prepare	SCE to submit Dust Control Plan to MDAQMD, and CPUC	Approved 11/27/2020

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
	<p>and submit to the MDAQMD, Clark County DAQ, CPUC, BLM and NPS a Dust Control Plan that describes all dust control measures that will be implemented for the project, including, but not limited to:</p> <ul style="list-style-type: none"> • Use periodic watering for short-term stabilization of disturbed surface area to minimize visible fugitive dust emissions. If used, non-water-based or chemical soil stabilizers and dust suppressants shall be non-toxic and must not cause loss of vegetation, adverse odors, or additional emissions of ozone precursor reactive organic gases (ROG) or volatile organic compounds (VOC). • Provide stabilized access route(s) to the project site as soon as is feasible and enforce a maximum 15 mile per hour vehicle speed limit on any unpaved surface. • Stabilize graded site surfaces upon completion of grading when subsequent development is delayed or expected to be delayed more than thirty days, except when such a delay is due to precipitation that dampens the disturbed surface sufficiently to eliminate visible fugitive dust emissions. • Maintain natural topography to the extent possible. • Construct parking lots and paved areas first, where feasible. • Take actions sufficient to prevent project-related trackout or spills onto publicly maintained paved surfaces, and cleanup project-related trackout or spills on publicly maintained paved surfaces within 24 hours. • Cover loaded haul vehicles or provide adequate freeboard while operating on publicly maintained paved surfaces. • Reduce non-essential earth-moving activity under high wind conditions, gusts exceeding 25 miles per hour. 	prior to commencing earth-moving activity.	
Biological Resources			
MM BR-1	<p>Conduct biological monitoring and reporting.</p> <p>Lead biologist: SCE shall propose one or more lead biologist(s) and submit their resume(s) to the CPUC and BLM for concurrence, no less than 60 days prior to the start of any ground-disturbing activities, including those occurring prior to site mobilization (including, but not limited to geotechnical borings or hazardous waste evaluations). At minimum the lead biologist will hold a bachelor's degree in</p>	SCE to submit resumes for lead biologist and biological monitors for concurrence by the CPUC and BLM at least 10 working days prior to the	Monitoring to commence at start of construction.

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
	<p>biological sciences, zoology, botany, ecology, or a closely related field; have at least three years of experience in field biology and at least one year of direct field experience with biological resources found in or near the project area, <i>OR</i> relevant education and experience that demonstrates the ability to carry out the tasks required of a lead biologist. The resume(s) shall demonstrate to the satisfaction of the CPUC and BLM the appropriate education and experience to accomplish the assigned biological resources tasks.</p> <p>The lead biologist will be SCE’s primary point of contact to CPUC, BLM, NPS, CDFW, and USFWS regarding any biological resource issues and implementation of related mitigation measures and permit conditions throughout project construction and post-construction restoration work. In addition, the lead biologist will oversee supervision and training of biological monitors (below) and preparation and submission of all monitoring reports and notifications (below).</p> <p>If the lead biologist is replaced, the specified information of the proposed replacement must be submitted to the CPUC and BLM at least ten working days prior to the termination or release of the preceding lead biologist. In an emergency, SCE shall immediately notify the CPUC and BLM to discuss the qualifications and approval of a short-term replacement while a permanent lead biologist is proposed for consideration.</p> <p>Biological monitors: SCE shall assign qualified biological monitors to the project to monitor all work activities with the potential to impact special status species or their habitat during the construction phase. Work sites or activities considered to have no potential to impact special-status species or habitats will be subject to review and approval by CPUC in coordination with CDFW, USFWS, and BLM.</p> <p>Resumes of all biological monitors, including specialty monitors (including but not limited to bat, nesting bird, and special-status species monitors), shall be provided for concurrence by the CPUC and BLM, at least 10 working days prior to the monitor commencing field duties. The resumes shall demonstrate, to the satisfaction of the CPUC and BLM, the appropriate education and experience to accomplish the assigned biological resources tasks.</p> <p>SCE shall provide training to biological monitors, in addition to WEAP (see Mitigation Measure BR-2) and prior to the monitor commencing field duties, on biological resources present or potentially present on the Proposed Project, as well as</p>	<p>monitor commencing field duties.</p> <p>SCE shall provide training to biological monitors, in addition to WEAP, on bio resources, mitigation measurement requirements, etc., prior to the monitor commencing field duties.</p> <p>Prior to the start of monitoring activities, SCE shall provide proposed communication protocols and monitoring report formats, describing content and organization, for CPUC and BLM review and approval in consultation with CDFW and USFWS.</p>	

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
	<p>mitigation measures, permit requirements, project protocols, and the duties and responsibilities of a biological monitor.</p> <p>Reporting: SCE shall prepare and implement a procedure for communication among biological monitors and construction crews, to ensure timely notification (i.e., daily or sooner, as needed) to crews of any resource issues or restrictions. SCE will notify the CPUC and BLM of the procedure and will maintain records of daily communication. SCE will provide CPUC and BLM on-line access to project resource management maps and GIS data.</p> <p>Prior to the start of monitoring activities, SCE shall provide proposed monitoring report formats, describing content and organization, for CPUC and BLM review and approval in consultation with CDFW and USFWS.</p>		
MM BR-2	<p>Prepare and implement a Worker Environmental Awareness Program (WEAP). SCE shall prepare and implement a project-specific Worker Environmental Awareness Program (WEAP) to educate on-site workers about the Proposed Project’s sensitive environmental issues. The WEAP shall be presented by the lead biologist or a biological monitor to all personnel on-site during the construction phase, including but not limited to surveyors, engineers, inspectors, contractors, subcontractors, supervisors, employees, monitors, visitors, and delivery drivers. If the WEAP presentation is recorded on video, it may be presented by any competent project personnel.</p> <p>The WEAP shall consist of a training presentation, with supporting written materials provided to all participants. At least 60 days prior to the start of ground-disturbing activities, SCE shall submit the WEAP presentation and associated materials to the CPUC and BLM for review and approval in consultation with the USFWS and CDFW.</p> <p>The WEAP training shall include, at minimum:</p> <ul style="list-style-type: none"> • Overview of the project, the jurisdictions the project route passes through (e.g., San Bernardino County, CA; Clark County, Nevada; CSLC; BLM; NPS; BOR; DOD) and any special requirements of those jurisdictions. • Overview of the federal and state Endangered Species Acts, Bald and Golden Eagle Protection Act, Migratory Bird Treaty Act, and the consequences of non-compliance with these acts. 	<p>At least 60 days prior to the start of ground-disturbing activities, SCE shall submit the WEAP presentation and associated materials to the CPUC and BLM for review and approval in consultation with the USFWS and CDFW.</p> <p>Conduct WEAP training for crews prior to the start of construction.</p>	Approved 9/10/2020

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
	<ul style="list-style-type: none"> • Overview of the project mitigation and biological permit requirements, and the consequences of non-compliance with these requirements. • Sensitive biological resources on the project site and adjacent areas, including nesting birds, special-status plants and wildlife and sensitive habitats known or likely to occur on the project site, project requirements for protecting these resources, and the consequences of non-compliance. • Construction restrictions such as limited operating periods, Environmentally Sensitive Areas (ESAs), and buffers and associated restrictions, and other restrictions such as no grading areas, flagging or signage designations, and consequences of non-compliance. • Avoidance of invasive weed introductions onto the project site and surrounding areas, and description of the project’s weed control plan and associated compliance requirements for workers on the site. • Function, responsibilities, and authority of biological and environmental monitors and how they interact with construction crews. • Requirement to remain within authorized work areas and on approved roads, with examples of the flagging and signage used to designate these areas and roads, and the consequences of non-compliance. • Procedure for obtaining clearance from a biological monitor to enter a work site and begin work (including moving equipment), and the requirement to wait for that clearance. • One-hour hold (or other method SCE will use to halt work when necessary to maintain compliance) and the requirement for compliance. • Nest buffers and associated restrictions and the consequences of non-compliance. Procedure and time frame for halting work and removing equipment when a new buffer is established. Discussion of nest deterrents. • Explanation that wildlife must not be harmed or harassed. Procedures for covering pipes, securing excavations, and installing ramps to prevent wildlife entrapment. What to do and who to contact if dead, injured, or entrapped animals are encountered. 		

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	<ul style="list-style-type: none"> • General safety protocols such as hazardous substance spill prevention, containment, and cleanup measures; fire prevention and protection measures; designated smoking areas (if any) and cigarette disposal; safety hazards that may be caused by plants and animals; and procedure for dealing with rattlesnakes in or near work areas or access roads. • Project requirements that have resulted in repeated compliance issues on other recent transmission line projects, such as dust control, speed limits, track out (dirt or mud tracked from access roads or work sites onto paved public roads or other areas), personal protective equipment (PPE), work hours, working prior to clearance, and waste containment and disposal. • Printed training materials, including photographs and brief descriptions of all special-status plants and animals that may be encountered on the project, including behavior, ecology, sensitivity to human activities, legal protection, penalties for violations, reporting requirements, and protection measures. • Contact information for SCE, construction management, and contractor environmental personnel, and who to contact with questions. • Training acknowledgment form to be signed by each worker indicating that they understand and will abide by the guidelines, and a hardhat sticker so WEAP attendance may be easily verified in the field. 		
MM BR-3	<p>Minimize native vegetation and habitat loss. Final engineering of the project shall minimize the extent of disturbance and removal of native vegetation and habitat, to the extent safely possible. Work activities and roadways will avoid or minimize direct or indirect effects to sensitive habitat types or jurisdictional waters and provide buffer areas to minimize disturbance. Project access will utilize existing routes or bridges over jurisdictional waters wherever possible.</p> <p>Consistent with project safety and security protocols, landowner preferences, and any other applicable regulations or requirements, existing gates on project access roads will be closed and secured when project personnel enter or leave an area.</p> <p>Prior to beginning any ground-disturbing activities, SCE shall provide CPUC and BLM with final engineering GIS shapefiles depicting all temporary and permanent</p>	<p>Prior to any ground-disturbing activities, SCE shall provide CPUC and BLM with final engineering GIS shapefiles depicting all temporary and permanent disturbance areas, as well as summary data on temporary and permanent disturbance for each vegetation or</p>	<p>All work areas will be staked by Project and approved by CPUC</p>

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
	<p>disturbance areas, as well as summary data on temporary and permanent disturbance for each vegetation or habitat type.</p> <p>Prior to any construction, equipment or crew mobilization at each work site, work areas will be marked with staking or flagging to identify the limits of work and will be verified by project environmental staff and CPUC Environmental Monitor. Staking and flagging will clearly indicate the work area boundaries. Where staking cannot be used, traffic cones, traffic delineators, or other markers shall be used. Staking and flagging or other markers shall be in place during construction activities at each work site and refreshed as needed. Coded flagging colors or color combinations will be consistent and uniform across the project. All work activities, vehicles, and equipment will be confined to approved roads and staked and flagged or marked work areas.</p>	<p>habitat type. CPUC EM to verify site staking.</p>	
<p>MM BR-4 [Supersedes APM BIO-01]</p>	<p>Restore or revegetate temporary disturbance areas. SCE will implement a restoration or revegetation plan for all temporarily disturbed sites. Given that temporary impacts to desert tortoise habitat is considered a permanent impact in this MND and under BLM’s Programmatic Biological Opinion (BO) provides federal take authorization for the Project, SCE will mitigate for all desert tortoise habitat impacts as permanent impacts through compensatory mitigation. These temporarily disturbed sites will be subject to revegetation (i.e., re-establishment of vegetation to minimize long-term erosion, dust, and weed infestation) but habitat restoration will not be required. SCE will be required to implement habitat restoration at temporarily disturbed sites not mitigated through off-site compensation. SCE will provide a Habitat Restoration and Revegetation Plan (HRRP) to cover all temporarily disturbed sites, identifying sites to be subject to revegetation alone and those to be restored. The HRRP will describe, at a minimum, which revegetation or restoration method (e.g., natural revegetation, planting, or reseeding with native seed stock in compliance with the Proposed Project’s SWPPPs) will be implemented at each temporarily disturbed site. It will include the plant species or habitats to be restored or revegetated, the restoration or revegetation methods and techniques, and the monitoring periods and success criteria.</p> <p>All temporarily disturbed areas will be subject to revegetation and site management activities and success criteria of the Proposed Project’s SWPPP/Erosion Control Plan (HWQ-1) and the Integrated Weed Management Plan (BR-5) to ensure soil stabilization, vegetation cover, and weed prevention. In addition to those</p>	<p>Prior to construction, SCE shall submit HRRP for review and approval.</p> <p>SCE shall provide compensatory mitigation for desert tortoise.</p>	<p>Approved 3/19/2021</p>

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	<p>requirements, for any temporarily disturbed area not subject to compensatory mitigation (BR-8), the HRRP shall include:</p> <ul style="list-style-type: none"> • Restoration goals and objectives for each portion of the project area, based on vegetation type and jurisdictional status of each site. • Quantitative success criteria for each restoration site, area, or category. • Implementation details, including but not limited to topsoil stockpiling and handling; post-construction site preparation; soil decompaction and recontouring; planting and seeding palettes to include only native, locally sourced materials with confirmed availability from suppliers; fall or other suitable season planting or seeding dates (seeding outside the fall season may increase the risk of revegetation failure and need for subsequent remedial reseeding, irrigation, or other measures). • Maintenance details, including but not limited to irrigation or hand-watering schedule and equipment, erosion control, and weed control measures. • Monitoring and Reporting, specifying monitoring schedule and data collection methods throughout establishment of vegetation with key indicators of successful or unsuccessful progress, and quantitative criteria to objectively determine success or failure at the conclusion of the monitoring period. • Contingency measures such as reseeding, replanting, drainage repairs, adjustments to irrigation or weeding schedule, and extension of maintenance beyond the original schedule, to repair or remediate sites not on track to meet success criteria, or not meeting the criteria at the close of the originally scheduled monitoring period. • A Gantt Chart or similar exhibit identifying all components of the HRRP, including acquisition of plant materials, specifying site preparation and seeding or planting dates, identifying entity to perform each task (e.g., EPC contractor or restoration contractor) and indicating critical path activities. <p>The Draft HRRP shall be submitted to CPUC and BLM review and approval prior to the beginning of ground-disturbing activities. SCE shall incorporate all requested revisions in coordination with the CPUC and BLM and finalize the HRRP within 12 months from the start of construction.</p>		

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	<p>For all restoration areas, if a fire, flood, or other disturbance beyond the control of SCE, CPUC, and BLM damages the area within the monitoring period, SCE shall be responsible for a one-time replacement. If a second event occurs, no replacement is required.</p> <p>For all revegetation (per SWPPP requirements) or restoration sites (per the HRRP), only seed or potted nursery stock of locally occurring native species will be used. Seeding and planting will be informed by Chapter 5 of <i>Rehabilitation of Disturbed Lands in California</i> (Newton and Claassen, 2003). The list of plants observed during botanical surveys of the project area will be used as a guide to site-specific plant selection.</p> <p>Monitoring of the restoration sites will continue annually for up to 5 years or until the defined success criteria in the HRRP are achieved. SCE will be responsible for implementing remediation measures as needed. Following remediation work, each site will still be subject to the success criteria required for the initial restoration. The monitoring period for remediation work will be concurrent with the monitoring period required for the initial restoration.</p> <p>Reporting. For all restoration areas, SCE will provide annual reports to the CPUC and BLM verifying the total vegetation acreage subject to temporary and permanent disturbance, identifying which items of the HRRP have been completed, and which items are still outstanding. The annual reports will also include a summary of the restoration activities for the year, a discussion of whether success criteria were met, any remedial actions conducted and recommendations for remedial action, if warranted, that are planned for the upcoming year. Each annual report will be submitted within 90 days after completion of each year of restoration work.</p>		
MM BR-5 [Supersedes APM BIO-03]	<p>Prepare and Implement an Integrated Weed Management Plan. SCE shall prepare and implement an Integrated Weed Management Plan (IWMP) describing the proposed methods of preventing or controlling project-related spread or introduction of weeds. The IWMP also must meet BLM's requirements for NEPA disclosure and analysis if herbicide use is proposed for the project. A Draft IWMP shall be submitted to the CPUC and BLM for review and approval at least 60 days prior to SCE's application for Notice to Proceed, and no pre-construction activities (e.g., for geotechnical borings, hazardous waste evaluations, etc.), construction, equipment or crew mobilization, or project-related ground-disturbing activity shall proceed until the IWMP is approved.</p>	At least 60 days prior to requesting an NTP, SCE shall submit IWMP for review and approval, and conduct preconstruction weed inventory and treatment.	Approved 3/16/2021

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
	<p>For the purpose of the IWMP, “weeds” shall include designated noxious weeds, as well as any other non-native weeds or pest plants identified on the weed lists of the California Department of Food and Agriculture, the California Invasive Plant Council, or identified by BLM as special concern. The IWMP will include the contents listed below. The IWMP will be implemented throughout project pre-construction, construction, and post-construction revegetation phases, including throughout implementation of the HRRP (Mitigation Measure BR-4). The IWMP will include the information defined in the following paragraphs.</p> <p>Background. An assessment of the Proposed Project’s potential to cause spread of invasive non-native weeds into new areas, or to introduce new non-native invasive weeds into the ROW. This section must list known and potential non-native and invasive weeds occurring on the ROW and in the project region and identify threat rankings and potential consequences of project-related occurrence or spread for each species. This section must also identify control goals for each species (e.g., eradication, suppression, or containment) likely to be found within the Proposed Project area.</p> <p>Pre-construction weed inventory. SCE shall inventory weeds in all areas (both within and outside the ROW) subject to project-related vegetation removal/ disturbance, “drive and crush,” and ground-disturbing activity. The weed inventory shall also include vehicle and equipment access routes within the ROW and all project staging and storage yards. Weed occurrences shall be mapped and described according to density and area covered.</p> <p>Pre-construction weed treatment. Weed infestations identified in the pre-construction weed inventory shall be evaluated to identify potential for project-related spread and potential benefits (if any) of pre-construction treatment, considering the specific weeds, potential seed banks, or other issues. The IWMP will identify any infestations to be controlled or eradicated prior to project construction, or other site-specific weed management requirements (e.g., avoidance of soil or transport and site-specific vehicle washing where threat or spread potential is high). Control and follow-up monitoring of pre-construction weed treatment sites will follow methods identified in appropriate sections of the IWMP.</p> <p>Prevention. The IWMP shall specify methods to minimize potential transport of new weed seeds onto the ROW, or from one section of the ROW to another. The ROW may be divided into “weed zones,” based on known or likely invasive weeds in any</p>		

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	<p>portion of the ROW. The IWMP will specify inspection procedures for construction materials and equipment entering the Proposed Project area. Vehicles and equipment may be inspected and cleaned at entry points to specified portions of the ROW, and before leaving work sites where weed occurrences must be contained locally. Construction equipment shall be cleaned of dirt and mud that could contain weed seeds, roots, or rhizomes. Equipment shall be inspected to ensure it is free of any dirt or mud that could contain weed seeds, and the tracks, outriggers, tires, and undercarriage will be carefully washed, with special attention being paid to axles, frame, cross members, motor mounts, underneath steps, running boards, and front bumper/brush guard assemblies. Other construction vehicles (e.g., pick-up trucks) that will be frequently entering and exiting the site will be inspected and washed on an as-needed basis. Tools such as chainsaws, hand clippers, pruners, etc., shall be cleaned of dirt and mud before entering project work areas.</p> <p>All vehicles shall be washed off-site when possible. If off-site washing is infeasible, on-site cleaning stations will be set up at specified locations to clean equipment before it enters the work area. Wash stations will be located away from native habitat or special-status species occurrences. Wastewater from cleaning stations will not be allowed to run off the cleaning station site. When vehicles and equipment are washed, a daily log must be kept stating the location, date and time, types of equipment, methods used, and personnel present. The log shall contain the signature of the responsible crewmember. Written or electronic logs shall be available to BLM and CPUC monitors on request.</p> <p>Erosion control materials (e.g., hay bales) must be certified free of weed seed before they are brought onto the site. The IWMP must prohibit on-site storage or disposal of mulch or green waste that may contain weed material. Mulch or green waste will be removed from the site in a covered vehicle to prevent seed dispersal and transported to a licensed landfill or composting facility.</p> <p>The IWMP must specify guidelines for any soil, gravel, mulch, or fill material to be imported into the Proposed Project area, transported from site to site within the Proposed Project area, or transported from the Proposed Project area to an off-site location, to prevent the introduction or spread of weeds to or from the Proposed Project area.</p> <p>Monitoring. The IWMP shall specify methods to survey for weeds during pre-construction, construction, and restoration phases; and shall specify qualifications of</p>		

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	<p>botanists responsible for weed monitoring and identification. It must include a monitoring schedule to ensure timely detection and immediate control of new weed infestations to prevent further spread. Surveying and monitoring for weed infestations shall occur at least two times per year through the close of the restoration phase, to coincide with the early detection period for early season and late season weeds (i.e., species germinating in winter and flowering in late winter or spring, and species germinating later in the season and flowering in summer or fall). It also must include methods for marking invasive weeds on the ROW and recording and communicating these locations to weed control staff. The map of weed locations (discussed above) shall be updated at least once a year. The monitoring section shall also describe methods for post-eradication monitoring to evaluate success of control efforts and any need for follow-up control.</p> <p>Control. The IWMP must specify manual and chemical weed control methods to be employed. The IWMP shall include only weed control measures with a demonstrated record of success for target weeds, based on the best available information. The plan shall describe proposed methods for promptly scheduling and implementing control activity when any project-related weed infestation is located (e.g., located on a project disturbance site), to ensure effective and timely weed control. Weed infestations must be controlled or eradicated upon discovery, and before they go to seed, to the extent feasible with the goal to prevent further spread. All proposed weed control methods must minimize the extent of any disturbance to native vegetation, limit ingress and egress to defined routes, and avoid damage from herbicide use or other control methods to any environmentally sensitive areas identified within or adjacent to the ROW.</p> <p>New weed infestations shall be treated at a minimum of once annually until eradication, suppression, or containment goals are met. For eradication, when no new occurrences are observed for three consecutive years, the weed occurrence can be considered eradicated and weed control efforts may cease for the site.</p> <p>Manual control shall specify well-timed removal of weeds or their seed heads with hand tools; seed heads and plants must be disposed of in accordance with guidelines from the San Bernardino County Agricultural Commissioner and Nevada Department of Agriculture, if such guidelines are available.</p> <p>The chemical control section must include specific and detailed plans for any herbicide use. It must indicate where herbicides will be used, which herbicides will</p>		

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	<p>be used, and specify techniques to be used to avoid drift or residual toxicity to wildlife and native vegetation or special-status plants, consistent with BLM's <i>Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States</i> (BLM, 2007) and <i>National Invasive Species Management Plan</i> (NISC, 2008). Only state and BLM-approved herbicides may be used. Herbicide treatment will be implemented by a Licensed Qualified Applicator. Herbicides shall not be applied during or within 24 hours of predicted rain. Only water-safe herbicides shall be used in riparian areas or within channels (engineered or not) where they could run off into downstream areas. Herbicides shall not be applied when wind velocities exceed six (6) mph. All herbicide applications will follow U.S. Environmental Protection Agency label instructions and will be in accordance with federal, state, and local laws and regulations.</p> <p>Reporting schedule and contents. The IWMP shall specify the reporting schedule and contents of each report.</p>		
MM BR-6 [Supersedes APM BIO-02]	<p>Minimize and mitigate impacts to special-status plants.</p> <p>Pre-construction survey. SCE shall conduct focused pre-construction surveys for federal- and state-listed and other special-status plants within suitable habitat. All special-status plant species (including listed threatened or endangered species, and CNPS California Rare Plant Rank (CRPR) 1 and 2 ranked species likely to be impacted by project activities shall be documented in pre-construction survey reports. Surveys shall be conducted by a qualified botanist during the appropriate season in all suitable habitat within 50 feet of disturbance areas. The field surveys and reporting must conform to current CDFW botanical field survey protocol (CDFG 2018). Where any special-status plants may be discovered, the survey area will extend beyond the ROW to determine the extent of the local occurrence, to evaluate the significance of any project impacts. The reports will describe any conditions that may have prevented target species from being located or identified, even if they are present as dormant seed or below-ground rootstock. If pre-construction survey areas conducted in years of poor rainfall or following other extreme events (e.g., recent intense overgrazing or wildfire), then the project shall use data from 2016/2017 and 2019 surveys to define population area and maximum number of individuals (Note, the unusually high rainfall in 2017 and 2019 are likely to better define rare plant locations and have more accurate results than subsequent years with lower rainfall). For species not previously detected on surveys but for which have a high potential to occur, reference populations will be used to determine if the species is detectable</p>	<p>SCE shall conduct focused preconstruction surveys for federal- and state-listed and other special-status plants within suitable habitat prior to construction at individual work sites and submit reports to CPUC and BLM for review and approval.</p> <p>SCE shall prepare a CYPSP.</p> <p>SCE shall prepare Mitigation Plan for impacts to any state or federally listed plants or CRPR 1 or Nevada ranked S1, S2, or S3 species.</p>	<p>SSPSRP approved on 1/27/2021.</p> <p>CYSRP was approved on 12/11/2020</p>

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
	<p>for pre-construction surveys conducted in suitable habitat. Prior to initial ground disturbance at individual construction work areas, SCE shall submit pre-construction field survey reports along with maps showing locations of survey areas and special-status plants to the CPUC and BLM for review and approval in coordination with CDFW.</p> <p>Native cactus and Yucca. Most native cactus and shrubby <i>Yucca</i> species (Joshua tree and Mohave yucca) can be successfully salvaged and transplanted, and yuccas often provide an important vertical component to wildlife habitat. Therefore, native cactus (excluding chollas in the genus <i>Cylindropuntia</i>) and yuccas (including Joshua trees, <i>Y. brevifolia</i>), shall be avoided or salvaged as follows:</p> <p>SCE will prepare and implement a cacti and yucca salvage plan. The goal shall be maximum practicable survivorship of salvaged plants. The Plan will include at minimum: (a) species and locations of plants identified for salvage; (b) criteria for determining whether an individual plant is appropriate for salvage; (c) the appropriate season for salvage; (d) equipment and methods for collection, transport, and re-planting plants or seed banks, to retain intact soil conditions and maximize success; (e) a requirement to mark each plant to identify the north-facing side prior to transport, and replant it in the same orientation; (f) details regarding storage of plants or seed banks for each species; (g) location of the proposed recipient site, and detailed site preparation and plant introduction techniques for top soil storage, as applicable; (h) a description of the irrigation, weed control, and other maintenance activities; (i) success criteria, including specific timeframe for survivorship and reproduction of each species; and (j) a detailed monitoring program, commensurate with the Plan's goals.</p> <p>Mitigation. SCE shall mitigate impacts to any state or federally listed plants or CRPR 1 or Nevada ranked S1, S2, or S3 species that may be located on the project disturbance areas or surrounding buffer areas through one or a combination of the following strategies. Additionally, impacts to CRPR 2 ranked plants occurring in California will be similarly mitigated.</p> <p>Avoidance of special-status plants will be the preferred strategy wherever feasible. Where avoidance is not feasible, and the project would directly or indirectly affect more than 10 percent of a local occurrence,¹ by either number of plants (shrubs and</p>		

¹An occurrence for a plant is defined as any population or group of nearby populations located more than 0.25 miles from any other population (CDFW, 2009).

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
	<p>trees) or extent of occupied habitat (annuals or perennial herbs), SCE shall prepare and implement a mitigation plan to consist of off-site compensation, salvage, horticultural propagation / off-site introduction, or a combination of these.</p> <ul style="list-style-type: none"> ● Avoidance. Work areas shall be located to avoid or minimize impacts to special-status plants to the greatest extent possible. Effective avoidance through project design shall include a buffer area surrounding each avoided occurrence, where no project activities will take place. The buffer area will be clearly staked, flagged, and signed for avoidance prior to the beginning of ground-disturbing activities, and maintained throughout the construction phase. At minimum, the buffer for shrub species shall be equal to twice the drip line (i.e., two times the distance from the trunk to the canopy edge) to protect and preserve the root systems. The buffer for herbaceous species shall be a minimum of 50 feet from the perimeter of the occupied habitat or the individual(s). However, for locations in the mountains, a larger buffer may need to be applied to shrub and herbaceous species if the construction monitors determine there is a risk of indirect effects from erosion or inundation. If a smaller buffer is necessary due to other project constraints, SCE will develop and implement site-specific monitoring and put other measures in place to avoid the take of the species, with the approval of the CPUC and BLM, in coordination with CDFW. ● Off-site compensation. SCE shall provide compensation lands consisting of habitat occupied by the impacted CRPR 1 or 2 ranked plant populations at a 1:1 ratio of acreage and number of plants for any occupied habitat directly impacted (whether temporary or permanent) by the project. Occupied habitat will be calculated on the project site and on the compensation lands as including each special-status plant occurrence and a surrounding 50-foot buffer area. If compensation is selected as a means of mitigating special-status plant impacts, it may be accomplished by purchasing credit in an established mitigation bank, acquiring conservation easements, or direct purchase and preservation of compensation lands. Compensation for these impacts may be “nested” or “layered” with compensation for habitat loss described in Mitigation Measure BR-8. ● Salvage. SCE shall consult with a qualified restoration ecologist or horticulturist regarding the feasibility and likely success of salvage efforts for each species. If salvage is deemed to be feasible, based on prior success with similar species, 		

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
	<p>then SCE shall prepare and implement a Special-status Plant Salvage and Relocation Plan, to be reviewed and approved by the CPUC and BLM, in consultation with CDFW and USFWS, prior to direct or indirect disturbance of any occupied habitat. For special-status plants, excluding cacti and Yuccas (see above), the goal shall be to improve existing populations or establish new populations. For cacti and yuccas, the goal shall be maximum practicable survivorship of salvaged plants. The Plan will include at minimum: (a) species and locations of plants identified for salvage; (b) criteria for determining whether an individual plant is appropriate for salvage; (c) the appropriate season for salvage; (d) equipment and methods for collection, transport, and re-planting plants or seed banks, to retain intact soil conditions and maximize success; (e) for shrubs, cacti, and yucca, a requirement to mark each plant to identify the north-facing side prior to transport, and replant it in the same orientation; (f) details regarding storage of plants or seed banks for each species; (g) location of the proposed recipient site, and detailed site preparation and plant introduction techniques for top soil storage, as applicable; (h) a description of the irrigation, weed control, and other maintenance activities; (i) success criteria, including specific timeframe for survivorship and reproduction of each species; and (j) a detailed monitoring program, commensurate with the Plan’s goals.</p> <ul style="list-style-type: none"> • Annual monitoring reports shall be submitted to CPUC and BLM for five years or until the relocation effort is deemed successful on agreement of SCE and the CPUC. Reports shall include, but not be limited to, details of plants salvaged, stored, and transplanted (salvage and transplanting locations, species, number, size, condition, etc.); adaptive management efforts implemented (date, location, type of treatment, results, etc.); and evaluation of success of transplantation. • Horticultural propagation and off-site introduction. If salvage and relocation is not believed feasible for special-status plants, then SCE shall consult with a qualified entity to develop an appropriate experimental propagation and relocation strategy, based on the life history of the species affected. The Plan will include at minimum: (a) collection and salvage measures for plant materials (e.g., cuttings), seed, or seed banks, to maximize success likelihood; (b) details regarding storage of plant, plant materials, or seed banks; (c) location of the proposed propagation facility, and proposed methods; (d); time of year that the salvage and other practices will occur; (e) success criteria; and (f) a detailed monitoring program, commensurate with the Plan’s goals. 		

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
MM BR-8 [Supersedes APM BIO-05]	<p>Compensate for desert tortoise habitat loss. SCE shall compensate for all desert tortoise habitat loss through off-site habitat acquisition and management, or through participation in an approved in-lieu fee compensatory mitigation bank, or other agency approved mitigation strategies. This mitigation measure will be applicable to all temporary and permanent project disturbance to natural habitat types, (i.e., all vegetation types identified in Table 5.4-2, excluding active agriculture, barren, and developed lands). This compensatory mitigation for desert tortoise will also mitigate for habitat impacts to other native wildlife species.</p> <p>Habitat compensation shall be accomplished by acquisition of mitigation land or conservation easements or by providing funding for specific land acquisition, endowment, restoration, and management actions. SCE shall prepare a Habitat Compensation Plan to be reviewed and approved by the CPUC- and, BLM, in coordination with the USFWS and CDFW.</p> <p>SCE shall acquire and protect, in perpetuity, compensation habitat to mitigate impacts to biological resources as detailed below. SCE shall be responsible for the acquisition, initial protection and or habitat improvement. SCE may convey title of the compensation lands to a public agency such as BLM, NPS, or CDFW or the lands may be held by a private conservation entity. If the land is conveyed to BLM, it shall be within a land use designation such as Area of Environmental Concern, wilderness, or similar designation consistent with long-term management for biological resource values and excluding incompatible land uses (e.g., energy development). If it is conveyed to CDFW, or retained under private ownership, it shall be covered by a conservation easement or other terms acceptable to CDFW. If there is any conflict between the requirements of this mitigation measure and requirements of any resource agency permit (e.g., USFWS Biological Opinion or CDFW Incidental Take Permit), the more stringent requirement shall apply.</p> <p>The acreages of compensation land shall be based upon final engineering calculation of impacted acreage for each resource and on ratios set forth in this measure, or a USFWS Biological Opinion, a CDFW Streambed Alteration Agreement, a CDFW Incidental Take Permit, or the Consistency Determination, whichever presents a higher ratio. Acreages will be adjusted as appropriate for other alternatives or future modifications during implementation.</p> <p>Compensation shall be provided for impacts to the following resources, at the ratios specified below (acres acquired and preserved to acres impacted). These ratios</p>	<p>Prior to construction, SCE shall prepare a Habitat Compensation Plan to be reviewed and approved by the CPUC and BLM, in coordination with the USFWS and CDFW.</p> <p>If the compensation land is held by a private entity, SCE or approved third party shall prepare a management plan for review and approval by the CPUC and BLM, in consultation with CDFW and USFWS.</p> <p>If the land is conveyed to a public agency, SCE will coordinate with the agency as needed to identify management planning needs (if any).</p>	The Habitat Compensation Plan was approved on 3/30/2021

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
	<p>reflect multiple biological resource values, including habitat suitability for special-status species.</p> <ul style="list-style-type: none"> • Previously disturbed lands (agriculture, developed/disturbed) and open water: n/a (no habitat compensation required) • Undisturbed land, including suitable desert tortoise habitat outside designated critical habitat: 1:1 • Suitable desert tortoise habitat within designated critical habitat: 5:1 <p>The Habitat Compensation Plan must specify compensation acreage for each habitat type, based on final engineering. Final compensation requirements may be adjusted to account for any deviations in project disturbance, according to the as-built shapefiles aerial imagery.</p> <p>Compensation Land Selection Criteria. Criteria for the acquisition, initial protection and habitat improvement, and long-term maintenance and management of compensation lands for impacts to biological resources shall include all of the following:</p> <ul style="list-style-type: none"> • Compensation lands will provide habitat value that is equal to or better than the quality and function of the habitat impacted by the project, taking into consideration soils, vegetation, topography, human-related disturbance, wildlife movement opportunity, proximity to other protected lands, management feasibility, and other habitat values, subject to review and approval by CPUC and BLM; • Potential compensation sites where creosote rings are found will be prioritized where feasible, and where consistent with the other selection criteria; • To the extent that proposed compensation habitat may have been degraded by previous uses or activities, the site quality and nature of degradation must support the expectation that it will regenerate naturally when disturbances are removed and SCE will receive appropriate ratio credits for restoration; • Be near larger blocks of lands that are either already protected or planned for protection, or which could feasibly be protected long-term by a public resource agency or a non-governmental organization dedicated to habitat preservation; 		

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	<ul style="list-style-type: none"> • Not have a history of intensive recreational use or other disturbance that might cause future erosion or other habitat damage, and make habitat recovery and restoration infeasible; • Not be characterized by high densities of invasive species, either on or immediately adjacent to the parcels under consideration, that might jeopardize habitat recovery and restoration; • Not contain hazardous wastes that cannot be removed to the extent that the site could not provide suitable habitat; • Have water and mineral rights included as part of the acquisition, unless the CPUC and BLM, in consultation with CDFW and USFWS, agree in writing to the acceptability of land without these rights. <p>Review and Approval of Compensation Lands Prior to Acquisition. SCE shall submit a Draft Habitat Compensation Plan for review and approval by the CPUC and BLM describing the parcel(s) intended for protection. This Plan will discuss the suitability of the proposed parcel(s) as compensation lands in relation to the selection criteria listed above.</p> <p>Management Plan. If the compensation land is held by a private entity, SCE or approved third party shall prepare a management plan for the compensation lands in consultation with the entity that will be managing the lands. The goal of the management plan will be to support and enhance the long-term viability of the biological resources. The Management Plan must be submitted for review and approval to the CPUC and BLM, in consultation with CDFW and USFWS. If the land is conveyed to a public agency, SCE will coordinate with the agency as needed to identify management planning needs (if any).</p> <p>Compensation Lands Acquisition Requirements. Compensation land parcels, management planning and funding mechanism, management entities, habitat protection and improvement measures, title conveyance, conservation easement language and easement holder, all will be subject to review and approval by CPUC and BLM in coordination with CDFW and USFWS.</p>		
MM BR-9 [Supersedes APM BIO-04]	Conduct surveys and avoidance for special-status reptiles. Pre-activity Surveys: No more than seven days prior to the onset of ground-disturbing activities, an agency-approved biologist — with experience monitoring and handling desert tortoise —	No more than 7 days prior to ground-disturbance, conduct	The RMP was approved 11/24/2020

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
	<p>will conduct a pre-activity survey in all work areas within potential desert tortoise, banded Gila monster, desert rosy boa, or Mojave fringe-toed lizard habitat, plus an approximately 300-foot buffer. If potentially suitable burrows, sand fields, or rock piles are found, they shall be checked for occupancy. All desert tortoise burrows within the pre-activity survey area (including desert tortoise pallets) must be flagged or marked using an alternate method with minimal potential risk of cuing predators, to be developed in coordination with CDFW so that they may be avoided during work activities.</p> <ul style="list-style-type: none"> • Raven Management: SCE shall prepare (for CPUC review and wildlife agency approval) and implement a Raven Management Plan (RMP) to minimize avian predation of desert tortoise for the Proposed Project. The purpose of the RMP is to utilize methods that deter raven depredation of juvenile desert tortoises, and other wildlife species. The RMP is not intended to eliminate or control raven populations but will target offending ravens that have been found to prey upon desert tortoises. The RMP will incorporate an adaptive management strategy for immediate implementation following construction of the Proposed Project. The RMP will be evaluated after three years of implementation, or as needed, if avian predation becomes apparent. The following activities may be implemented as part of the RMP: 1) Common raven nest/power line monitoring, 2) Funding of offending raven control via contract with the U.S. Department of Agriculture, and 3) Alternative control strategies developed in coordination with USFWS (e.g. egg-oiling, laser deterrents, etc.). Mutual and timely cooperation between SCE and the BLM, USFWS, and CDFW is central to effective implementation of the RMP. 	<p>survey in all work areas within potential desert tortoise, banded Gila monster, desert rosy boa, or Mojave fringe-toed lizard habitat, plus an approximately 300-foot buffer.</p> <p>If potentially suitable burrows, sand fields, or rock piles are found, they will be checked for occupancy and flagged.</p> <p>SCE shall prepare (for CPUC review and wildlife agency approval) Raven Management Plan.</p>	
MM BR-10 [Supersedes APM BIO-06]	<p>Prepare and implement a Nesting Bird Management Plan. SCE shall prepare and implement a Nesting Bird Management Plan (NBMP) in coordination with CPUC, BLM, CDFW, and USFWS. The NBMP shall describe methods to minimize potential project effects to nesting birds and avoid any potential for unauthorized take. Where scheduling allows SCE will endeavor to conduct clearing of any vegetation, site preparation in open or barren areas, or other project-related activities that may adversely affect breeding birds outside the nesting season. Project-related disturbance including construction and pre-construction activities shall not proceed within 300 feet of active nests of common bird species or 500 feet of active nests of raptors or special-status bird species (except for golden eagle) until approval of the NBMP by CPUC and BLM in consultation with CDFW and USFWS.</p>	<p>SCE shall prepare a NBMP for approval by CPUC and BLM in consultation with CDFW and USFWS.</p>	<p>The NBMP was approved 12/11/2020</p>

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
	<p>NBMP Content. The NBMP shall include: (1) definitions of default nest avoidance buffers for each species or group of species, depending on characteristics and conservation status for each species and the nature of planned Project activities in the vicinity; (2) a notification procedure for buffer distance reductions should they become necessary; (4) a pre-construction survey protocol (surveys no longer than 7 days prior to starting work activity at any site); (5) a monitoring protocol, to be implemented until adjacent construction activities are completed or the nest is no longer active, including qualifications of monitors, monitoring schedule, and field methods, to ensure that any project-related effects to nesting birds will be minimized; and (6) a protocol for documenting and reporting any inadvertent contact with or effects to birds or nests. The NBMP will be applicable throughout the nesting season (beginning January 1 for raptors, February 1 for most other birds, and continuing through the end of August).</p> <p>Golden eagles. SCE shall review all available USFWS data to identify known golden eagle nest sites or territories in the vicinity of the Project route. SCE shall either assume that known nest sites are occupied or at its discretion conduct nesting season surveys within a 1 mile radius of the portions of the project area where suitable nesting habitat may exist and where work will occur during the breeding season (December 1 through July 31). If a potentially occupied nest (based either on assumption or field data) is detected within 1 mile of the project, SCE shall implement a one-mile line-of-sight and one-half mile no line-of-sight buffer to ensure that project construction activities do not result in injury or disturbance to golden eagles.</p> <p>Nest deterrents. The NBMP shall describe any proposed measures or deterrents to prevent or reduce bird nesting activity on project equipment or facilities, such as buoys, visual or auditory hazing devices, bird repellents, securing of materials, and netting of materials, vehicles, and equipment. It shall also include timing for installation of nest deterrents and field confirmation to prevent effects to any active nest; guidance for the contractor to install, maintain, and remove nest deterrents according to product specifications; and periodic monitoring of nest deterrents to ensure proper installation and functioning and prevent injury or entrapment of birds or other animals. In the event that an active nest is located on project facilities, materials or equipment, SCE will avoid disturbance or use of the facilities, materials or equipment (e.g., by red-tag) until the nest is no longer active.</p>		

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
	<p>Communication. The NBMP shall specify the responsibilities of construction monitors with regard to nests and nest issues and specify a direct communication protocol to ensure that nest information and potential adverse impacts to nesting birds can be promptly communicated from nest monitors to construction monitors, so that any needed actions can be taken immediately.</p> <p>The NBMP shall specify a procedure to be implemented following accidental disturbance of nests, including wildlife rehabilitation options. It also shall describe any proposed measures, and applicable circumstances, to prevent take of precocial young of ground-nesting birds such as killdeer or quail. For example, chick fences may be used to prevent them from entering work areas and access roads. Finally, the NBMP will specify a procedure for removal of inactive nests, including verification that the nest is inactive and a notification/approval process.</p> <p>Reporting. Throughout the construction phase of the project, nest locations, project activities in the vicinity of nests (including helicopter traces), and any adjustments to buffer areas shall be updated and available to CPUC monitors on a daily basis. All buffer reduction notifications and prompt notifications of nest-related non-compliance and corrective actions will be made via email to CPUC monitors. The draft NBMP shall include a proposed format for daily and weekly reporting (e.g., spreadsheet available online, tracking each nest). In addition, the NBMP shall specify the format and content of nest data to be provided in regular monitoring and compliance reports. At the end of each year’s nest season, SCE will submit an annual NBMP report to the CPUC, BLM, CDFW, and USFWS. Specific contents and format of the annual report will be reviewed and approved by the CPUC and BLM in consultation with CDFW and USFWS.</p>		
MM BR-11 [Supersedes APM BIO-07]	<p>Conduct surveys and avoidance for burrowing owl. Burrowing owl surveys shall be conducted in accordance with the most current CDFW guidelines in Appendix D of the Staff Report on Burrowing Owl Mitigation (CDFG, 2012; or updated guidelines as they become available) in all potential habitat, regardless whether or not the previous assessment identified burrows. SCE shall take measures to avoid impacts to any active burrowing owl burrow within or adjacent to a work area. The default buffer for a burrowing owl burrow is 300 feet for ground construction, and 300 feet horizontal and 200 feet vertical for helicopter construction. Effectiveness of the buffer area will be monitored, and adjustments will be made if necessary. The Nesting Bird Management Plan (Mitigation Measure BR-10) will specify a procedure</p>	<p>Prior to construction, conduct burrowing owl surveys.</p> <p>Prepare a draft BOMPRP for review and approval by CPUC and BLM in consultation with CDFW and USFWS</p>	<p>The BOMPRP was approved 11/24/2020</p>

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
	<p>for adjusting this buffer, if needed. Binocular surveys may be substituted for protocol field surveys on private lands adjacent to the project site only when SCE has made reasonable attempts to obtain permission to enter the property for survey work but was unable to obtain such permission.</p> <p>If active burrowing owl burrows are located within project work areas, SCE may passively relocate the owls by preparing and implementing a Burrowing Owl Passive Relocation Plan, as described below. SCE shall prepare a draft Burrowing Owl Passive Relocation Plan for review and approval by CPUC and BLM in consultation with CDFW and USFWS prior to the start of any ground-disturbing activities. SCE may not initiate burrowing owl passive relocation prior to finalization of the Plan and approval by CPUC and BLM. No active relocation shall be permitted. No passive relocation of burrowing owls shall be permitted during breeding season, unless a qualified biologist verifies through non-invasive methods that an occupied burrow is not occupied by a mated pair, and only upon authorization by CDFW. The Plan shall include, but not be limited to, the following elements:</p> <ul style="list-style-type: none"> ● Assessment of Suitable Burrow Availability. The Plan shall include an inventory of existing, suitable, and unoccupied burrow sites within 500 feet of the affected project work site. Suitable burrows will include inactive desert kit fox, ground squirrel, or desert tortoise burrows that are deep enough to provide suitable burrowing owl nesting sites, as determined by a qualified biologist. If two or more suitable and unoccupied burrows are present in the area for each burrowing owl that will be passively relocated, then no replacement burrows will need to be built. ● Replacement Burrows. For each burrowing owl that will be passively relocated, if fewer than two suitable unoccupied burrows are available within 500 feet of the affected project work site, then SCE shall construct at least two replacement burrows within 500 feet of the affected project work site. Burrow replacement sites shall be in areas of suitable habitat for burrowing owl nesting, and subject to minimal human disturbance and access. The Plan shall describe measures to ensure that burrow installation or improvements would not affect sensitive species habitat or any burrowing owls already present in the relocation area. The Plan shall provide guidelines for creation or enhancement of at least two natural or artificial burrows for each active burrow within the project disturbance area, including a discussion of timing of burrow improvements, 		

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	<p>specific location of burrow installation, and burrow design. Design of the artificial burrows shall be consistent with CDFW guidelines (CDFG, 2012; or more current guidance as it becomes available) and shall be approved by the CPUC, BLM, CDFW, and USFWS.</p> <ul style="list-style-type: none"> • Methods. Provide detailed methods and guidance for passive relocation of burrowing owls, outside the breeding season. An occupied burrow may not be disturbed during the nesting season (generally, but not limited to, February 1 to August 31), unless a qualified biologist determines, by non-invasive methods, that it is not occupied by a mated pair. Passive relocation would include installation of one-way doors on burrow entrances that would let owls out of the burrow but would not let them back in. Once owls have been passively relocated, burrows will be carefully excavated by hand and collapsed by, or under the direct supervision, of a qualified biologist. • Monitoring and Reporting. Describe monitoring and management of the replacement burrow site(s) and provide a reporting plan. The objective shall be to manage the relocation area for the benefit of burrowing owls, with the specific goal of maintaining the functionality of the burrows for a minimum of two years. Monitoring reports shall be available to the CPUC and BLM on a weekly basis. 		
MM BR-12	<p>Conduct surveys and avoidance for bats. SCE shall conduct surveys for roosting bats within 200 feet of project work areas within 14 days prior to any grading of rocky outcrops or removal of large trees (12 inches in diameter or greater at 4.5 feet above grade) with loose bark or other cavities, foliage, and palm fronds. Surveys shall be conducted during the breeding season (1 March to 31 July) and the non-breeding season. Surveys shall be performed by a qualified bat biologist (i.e., a biologist holding a CDFW collection permit and a Memorandum of Understanding or equivalent agreement with CDFW allowing the biologist to handle bats). The resume of the biologist shall be provided to the CPUC and BLM for concurrence in consultation with CDFW and USFWS prior to the biologist beginning field duties on the project. Surveys shall include a minimum of one day and one evening.</p> <p>Any active bat roosts, including occupied day roosts, maternity roosts, and hibernacula, must be identified and clearly marked. An exclusion area will be established 165 feet from any active roost, and these areas will be avoided during construction activities. Ingress and egress along established routes will be permitted</p>	<p>Submit resume of biologist for CPUC concurrence in consultation with CDFW and USFWS.</p> <p>Conduct preconstruction surveys within 200 feet or bat habitat and submit to CPUC and BLM for review and approval.</p> <p>An exclusion area will be established 165 feet from any active roost, and these areas will be avoided during</p>	N/A

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
	<p>in those areas, and additional buffer reductions may be considered in coordination with the qualified bat biologist, CPUC, and CDFW. If active roosts are found, then SCE will either (1) delay construction activities at these sites until the roost is no longer active, or (2) conduct follow-up focused surveys to determine if the sites support special-status bat species. If the roost is occupied by common species, then work activities may proceed. SCE shall consult with a bat specialist in order to determine when the breeding cycle for the special-status bats is completed. SCE shall consult with CDFW regarding eviction of non-breeding bats.</p> <p>SCE shall submit documentation providing pre-construction survey results and any avoidance of roosting and nursery sites to the CPUC and BLM for review and approval.</p>	<p>construction activities; CPUC EM to validating flagging.</p>	
MM BR-13	<p>Conduct surveys and avoidance for American badger, ringtail, and desert kit fox. SCE shall conduct pre-construction surveys for desert kit fox, ringtail, and American badger no more than 30 days prior to initiation of construction activities. Surveys shall be conducted in areas that contain habitat for this these species and shall include project disturbance areas and access roads plus a 200-foot buffer surrounding these areas. SCE shall submit documentation providing pre-construction survey results to the CPUC and BLM for review and approval. If dens are detected, each den shall be classified as inactive, potentially active, active non-natal, or active natal.</p> <p>Inactive dens located in project disturbance areas may be excavated by hand and backfilled to prevent reuse, only upon confirmation that they are inactive.</p> <p>Active or potentially active dens shall be flagged and project activities, with exceptions as listed below, within 100 feet (non-natal dens) or 200 feet (natal dens, or any active den during the breeding season) shall be avoided.</p>	<p>SCE shall conduct preconstruction surveys for desert kit fox, ringtail, and American badger no more than 30 days prior to initiation of construction activities and submit to CPUC and BLM for review and approval.</p> <p>Active or potentially active dens will be flagged, and project activities will be avoided, unless otherwise specified.</p>	<p>Preconstruction surveys for desert kit fox, ringtail, and American badger will be conducted within 30 days prior to initiation of construction activities.</p>
Cultural Resources			
APM-CUL-02	<p>Cultural Resources Survey. SCE would perform surveys prior to construction for any Proposed Project areas not yet surveyed (e.g., new or modified staging areas, pull sites, or other work areas).</p>	<p>SCE to submit survey results to CPUC and BLM.</p>	<p>Class III Cultural Resources Inventory reports were completed in 2018.</p>

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
MM CR-1	<p>Retain a Cultural Resources Specialist. Prior to the start of construction, a project Cultural Resources Specialist (CRS) whose training and background conforms to the U.S. Secretary of Interior’s Professional Qualifications Standards, as published in Title 36, Code of Federal Regulations, part 61 (36 C.F.R., part 61) shall be retained by SCE to supervise monitoring of construction excavations and to prepare a Cultural Resources Management Plan (CRMP) for the approved project. Their qualifications shall be appropriate to the needs of the project, specifically an archaeologist with demonstrated prior experience in the southern California desert and previous experience working with Southern California Tribal Nations. A copy of their qualifications shall be provided to the CPUC for review and approval. The project Cultural Resources Specialist shall use the services of Cultural Resources Monitors, tribal monitors and Field Crew as needed, to assist in mitigation, monitoring, and curation activities, as outlined in the CRMP. A copy of all proposed cultural staff qualifications shall be provided to the CPUC for review and approval prior to beginning work.</p>	<p>Prior to construction, resumes for all proposed cultural staff, including Cultural Resources Specialist, shall be provided to the CPUC for review and approval.</p>	<p>The CRMP was approved 12/11/2020</p>
MM CR-2	<p>Cultural resources environmental awareness training. Project personnel, including cultural resources monitors and tribal monitors, shall receive training that includes sensitivity training provided through participating tribes in video format regarding the appropriate work practices necessary to effectively implement the APMs and mitigation measures related to cultural resources and tribal cultural resources, including human remains. Training shall be required for all personnel before they begin work on a project site and repeated as needed for all new personnel before they begin work on the Project. This training program shall be submitted to the CPUC for approval at least 30 days before the start of construction and include procedures to be followed upon the discovery or suspected discovery of archaeological materials, tribal cultural resources, and human remains, consistent with the procedures set forth in the CRMP. This training may be integrated with a broader Worker Environmental Awareness Training program. Documentation of the training will be provided to the BLM and CPUC. The CPUC will provide documentation to the consulting tribes.</p>	<p>At least 30 days prior to the start of construction, a cultural training program shall be submitted to the CPUC for approval.</p> <p>Training shall be required for all personnel before they begin work on a project site.</p> <p>Documentation of training to be provided to CPUC and BLM; CPUC to provide to tribes.</p>	<p>The WEAP was approved on 9/10/2020</p>
MM CR-3	<p>Prepare and implement a Cultural Resources Management Plan. Prior to the beginning of construction, SCE shall submit at least 90 days before construction a Cultural Resources Management Plan (CRMP) for the project to the BLM and CPUC for review. The CPUC will submit the CRMP to representatives of consulting tribes for a 30-day review and comment period prior to approving the CRMP. The CPUC will in good faith consider any comments received from consulting tribes and</p>	<p>At least 90 days before construction, SCE to submit CRMP to the BLM and CPUC for review. The CPUC will submit the CRMP to representatives</p>	<p>The CRMP was on 12/11/2020</p>

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
	<p>incorporate such comments into the CRMP as deemed feasible. A single plan document that meets the requirements of both BLM and CPUC is acceptable. The CRMP shall be implemented under the direction of the SCE and the project Cultural Resources Specialist. The CRMP shall be prepared at the sole expense of the project proponent and shall meet all regulatory requirements. At a minimum the CRMP must address the following:</p> <ul style="list-style-type: none"> • The duties of the project Cultural Resources Specialist and associated staff shall be fully explained, including oversight/management, monitoring, and reporting duties with respect to known cultural resources and tribal cultural resources as well as site evaluation, data collection, and reporting for any newly identified resources discovered during project activities. The professional standards and ethical guidelines for all cultural resource personnel will be clearly outlined in the CRMP. • No collection of artifacts is authorized or planned for this project. If an unanticipated discovery requires evaluation via excavation and artifact collection, the retention/disposal, and permanent and temporary curation policies shall be specified. The decision-making process for identifying which artifacts are curated or reburied, where they are reburied and the individuals, including tribal participants, making these decisions shall be described. These policies shall apply to cultural resources materials and documentation resulting from evaluation and treatment of cultural resources and tribal cultural resources discovered during project activities. • The CRMP shall define and map all known prehistoric and historic resources eligible to the NRHP and CRHR within 100 feet of proposed work areas. How these resources will be avoided and protected during construction will be described. Avoidance measures to be used will be described, including where and when they will be implemented. How avoidance measures and enforcement of Environment Sensitive Areas (ESAs) will be coordinated with construction personnel will be included. • The implementation sequence and the estimated time frames needed to accomplish all project-related tasks (i.e., evaluation of new resources resulting in work stoppage, time to complete reports, etc.) during the project activities and any post-project analysis phases of the project, if necessary, shall be 	<p>of consulting tribes for a 30-day review and comment period prior to approving the CRMP.</p>	

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
	<p>specified. The intensity of monitoring proposed for each resource that may be impacted by project activities shall be outlined in the CRMP.</p> <ul style="list-style-type: none"> Person(s) expected to perform each monitoring and, if necessary, treatment task, their responsibilities, and the reporting relationships between project construction management and the monitoring and treatment team shall be outlined in the CRMP. <p>Tribal Monitors shall be retained to monitor ground disturbing activities within 100 feet of prehistoric and protohistoric resources. Tribal Monitors shall be retained for data recovery within prehistoric and protohistoric resources identified for data recovery. The ELM Project area spans multiple Tribal areas. The Tribe affiliated with a specific area will be considered first to provide Tribal Monitors. If multiple Tribes or Tribal Organizations are affiliated with a specific area, Tribal Monitors will be selected on a rotating basis. The CRMP will describe the roles and responsibilities of the monitors. Tribal monitors will be compensated. All impact-avoidance measures (such as the presence of monitors) to prohibit or otherwise restrict access to sensitive resource areas that are to be avoided during ground disturbance, construction, and/or operation shall be described. Areas where these measures are to be implemented shall be identified. The description shall address how these measures would be implemented prior to the start of ground disturbance and how long they would be needed to protect the resources from project-related impacts.</p> <ul style="list-style-type: none"> The commitment to record resources on Department of Parks and Recreation (DPR) 523 forms, to map, and to photograph all newly identified cultural resources over 50 years of age shall be stated. Participating tribes may offer their perspective regarding the newly identified cultural resource. Comments by tribes may be documented on the DPR 523c, parts A13 (Interpretation) and A14 (Remarks). The commitment to curate all artifacts retained as a result of any archaeological investigations in accordance with the appropriate requirements and the California State Historical Resources Commission's Guidelines for the Curation of Archaeological Collections, into a retrievable storage collection in a public repository, museum, or reburial at the request of tribal representatives shall be stated. The different curation policies for archaeological material collected on BLM land as opposed to private or state land, shall be clearly articulated. 		

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
	<ul style="list-style-type: none"> • The commitment of SCE to pay all curation or reburial fees for artifacts recovered and for related documentation produced during cultural resources investigations conducted for the project shall be stated. Should consulting tribes request that artifacts not be reburied, the CRMP shall identify a curation facility that could accept cultural resources materials resulting from project cultural resources investigations on private or state land. Tribal monitors shall be present for any reburials. • A final report shall be prepared presenting the results of the monitoring efforts. The contents, format, and review and approval process of the final report shall meet appropriate federal, state, and local guidelines. 		
Geology and Soils			
MM PAL-1	<p>Retain qualified paleontological staff. Project Paleontologist – Prior to the start of ground disturbance, a qualified paleontologist to serve as Project Paleontologist shall be retained by SCE. The qualifications of the Project Paleontologist shall be submitted to CPUC and BLM for approval. This individual shall retain a BLM paleontological resource use permit for the project and other appropriate permits. To do so this individual shall have the following qualifications as stipulated in BLM Manual 8270-1:</p> <ul style="list-style-type: none"> • Professional instruction in a field of paleontology relevant to the work proposed (vertebrate, invertebrate, trace, paleobotany, etc.), obtained through: <ul style="list-style-type: none"> ○ Formal education resulting in a graduate degree from an accredited institution in paleontology, or in geology, biology, botany, zoology or anthropology if the major emphasis is in paleontology; or ○ Equivalent paleontological training and experience including at least 24 months under the guidance of a professional paleontologist who meets qualification above that provided increased responsibility leading to professional duties similar to those in qualification above; and • Demonstrated experience in collecting, analyzing, and reporting paleontological data, similar to the type and scope of work proposed in the application; • Demonstrated experience in planning, equipping, staffing, organizing, and supervising crews performing the work proposed in the application; 	<p>Prior to ground disturbance, a resume for the Project Paleontologist will be submitted to CPUC and BLM for approval.</p> <p>Additional paleontological staff must meet the qualifications described in BLM IM 2009-011.</p>	A qualified Project paleontologist was approved

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
	<ul style="list-style-type: none"> • Demonstrated experience in carrying paleontological projects to completion as evidenced by timely completion and/or publication of theses, research reports, scientific papers and similar documents. <p>As described in BLM Instruction Manual (IM) 2009-011, the Project Paleontologist will serve as the Principal Investigator (PI) under the BLM permit and is responsible for all actions under the permit, for meeting all permit terms and conditions, and for the performance of all other personnel. This person is also the contact person for the project proponent, CPUC, and the BLM.</p> <p>Additional Paleontological Staff – The Project Paleontologist may obtain the services of Paleontological Field Agents, Field Monitors, and Field Assistants, if needed, to assist in mitigation, monitoring, and curation activities. These individuals must meet the qualifications described in BLM IM 2009-011.</p>		
MM PAL-2	<p>Provide paleontological environmental awareness training. SCE will provide worker’s environmental awareness training on paleontological resources protection as part of its WEAP required under Mitigation Measure BR-2, Prepare and implement a Worker Environmental Awareness Program. This training may be administered by the project paleontologist as a stand-alone training or included as part of the overall worker’s environmental awareness training. At a minimum, the training would include the following:</p> <ul style="list-style-type: none"> • the types of fossils that could occur at the project site; • the types of lithologies in which the fossils could be preserved; • the procedures that should be followed in the event of a fossil discovery; and • penalties for disturbing paleontological resources. 	Prior to working on the project, as part of the WEAP, each crew member shall be trained in paleontological resources protection.	The WEAP incorporates paleontologist training.
MM PAL-3 [Supersedes APM CUL-04]	<p>Prepare and implement a Paleontological Resource Mitigation and Monitoring Plan (PRMMP). Prior to the start of the project, SCE shall submit a Paleontological Mitigation and Monitoring Plan (PRMMP) for the project to the CPUC and BLM for review and approval. The PRMMP shall be prepared and implemented under the direction of the Project Paleontologist and shall address and incorporate mitigation measures PAL-1, PAL-3 and PAL-4. The PRMMP shall be based on Society of Vertebrate Paleontology (SVP) assessment and mitigation guidelines and meet all regulatory requirements. A monitoring plan indicates the avoidance or treatments recommended for the area of the proposed disturbance and must at a minimum address the following:</p>	Prior to the start of the project, SCE shall submit PRMMP to the CPUC and BLM for review and approval.	The PRMMP was 11/27/2020

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
	<ul style="list-style-type: none"> • Identification and mapping of impact areas of high sensitivity that will be monitored during construction; • A coordination strategy to ensure that a qualified paleontologist will conduct monitoring at the appropriate locations at the appropriate intensity; • The significance criteria to be used to determine which resources will be avoided or recovered for their data potential; • Procedures for the discovery, recovery, preparation, and analysis of paleontological resources encountered during construction, in accordance with standards for recovery established by the SVP; • Provisions for verification that the project proponent has an agreement with a recognized museum repository, for the disposition of recovered fossils and that the fossils shall be prepared prior to submittal to the repository as required by the repository (e.g., prepared, analyzed at a laboratory, curated, or cataloged); • Specifications that all paleontological work undertaken by the project proponent shall be carried out by qualified paleontologists with appropriate current permits, including but not limited to a Paleontological Resources Use Permit (for work on public lands administered by BLM) and any other permits required by other jurisdictions; • Description of monitoring reports that will be prepared which shall include daily logs, monthly reports, and a final monitoring report with an itemized list of specimens found to be submitted to the BLM, the CPUC, the project proponent and the designated repository within 90 days of the completion of monitoring; • The implementation sequence and the estimated time frames needed to accomplish all project-related tasks during the ground-disturbance and post-ground-disturbance analysis phases of the project shall be specified; and • Person(s) expected to perform each of the tasks, their responsibilities, and the reporting relationships between project construction management and the mitigation and monitoring team shall be identified. • All impact-avoidance measures (such as flagging or fencing) to prohibit or otherwise restrict access to sensitive resource areas that are to be avoided 		

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
	<p>during ground disturbance, construction, and/or operation shall be described. Any areas where these measures are to be implemented shall be identified. The description shall address how these measures would be implemented prior to the start of ground disturbance and how long they would be needed to protect the resources from project-related impacts.</p>		
Hazards and Hazardous Materials			
MM HH-1	<p>Prepare and implement a Hazardous Materials and Waste Management Plan. SCE shall prepare and implement a Project-specific Hazardous Materials and Waste Management Plan pursuant to Title 24, Part 9 of the California Code of Regulations (CCR) that identifies hazardous materials to be transported, used, and stored on site for the proposed construction activities — as well as hazardous wastes generated onsite as a result of the proposed construction activities — and appropriate management procedures according to the specifications outlined below.</p> <ul style="list-style-type: none"> • Hazardous Materials and Hazardous Waste Handling: The Plan will include the following components: (1) the program shall identify types of hazardous materials to be used during the project and the types of wastes that would be generated; (2) proper hazardous materials use, storage and disposal requirements as well as hazardous waste management procedures; and (3) all project personnel shall be provided with project-specific training to ensure that all hazardous materials and wastes associated with the project are handled in a safe and environmentally sound manner and disposed of according to applicable rules and regulations. Specifically, employees handling wastes shall have or receive hazardous materials training and shall be trained in hazardous waste procedures, spill contingencies, waste minimization procedures and treatment, storage and disposal facility (TSDF) training in accordance with current OSHA Hazard Communication Standard and Title 22 CCR. The Plan shall identify the landfill facilities that are authorized to accept the types of waste generated and hauled, and these landfills shall be used for hazardous waste disposal during construction. • Transport of Hazardous Materials: Hazardous materials that would be transported by truck include fuel (diesel fuel and gasoline) and oil and lubricants for equipment. Containers used to store hazardous materials would be properly labeled and kept in good condition. The Plan shall include written procedures for the transport of hazardous materials used in accordance with U.S. 	Submit Project-specific HWMP to CPUC and BLM 30 days prior to the start of construction for review and approval by CPUC.	The Project-specific HWMP was approved on 10/30/2020

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
	<p>Department of Transportation and Caltrans regulations. A qualified transporter would be selected to comply with U.S. Department of Transportation and Caltrans regulations. The Plan shall identify proposed trucking routes.</p> <ul style="list-style-type: none"> ● Fueling and Maintenance of Construction Equipment: Written procedures for fueling and maintenance of construction equipment shall be included in the Plan. Refueling and maintenance procedures may require vehicles and equipment to be refueled on site or by tanker trucks. Procedures will require the use of drop cloths made of plastic, drip pans and trays to be placed under refilling areas to ensure that chemicals do not come into contact with the ground. Refueling would be located in areas where absorbent pad and trays would be available. The fuel tanks would also contain a lined area to ensure that accidental spillage does not occur. Drip pans or other collection devices would be placed under the equipment at night to capture drips or spills. Equipment would be inspected daily for potential leakage or failures. Hazardous materials such as paints, solvents, and penetrants would be kept in an approved locker or storage cabinet. ● Fueling and Maintenance of Helicopters: Written procedures for fueling and maintenance of helicopters shall be included in the Plan. Procedures may require helicopters be refueled at construction work areas, helicopter staging areas, or local airports. Procedures would include the use of drop cloths made of plastic, drip pans and trays to be placed under refilling areas to ensure that chemicals do not come into contact with the ground. Refueling areas shall be identified in the Plan and necessary spill response materials shall be available within each refueling area. ● Emergency Release Response Procedures: The Plan shall include emergency response procedures in the event of a release of hazardous materials. The Plan must prescribe hazardous materials handling procedures for reducing the potential for a spill during construction and would include an emergency response program to ensure quick and safe cleanup of accidental spills. Hazardous materials shall not be stored near drains or waterways. Fueling shall not take place within 50 feet of drains or waterways with flowing water or within 75 feet of drains or waterways that are dry. All construction personnel, including environmental monitors, would be made aware of state and federal emergency response reporting guidelines for accidental spills. 		

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
	The Plan shall be submitted to CPUC and BLM 30 days prior to the start of construction for review and approval by the CPUC.		
Hydrology and Water Quality			
MM HWQ-1	<p>Implement an Erosion Control Plan. SCE shall develop and submit an Erosion Control Plan to the CPUC and BLM for review at least 60 days prior to construction. The Erosion Control Plan may be part of the Stormwater Pollution Prevention Plan (SWPPP) and kept onsite and readily available on request.</p> <p>Soil disturbance at structures and access roads is to be minimized and designed to prevent long-term erosion. The Erosion Control Plan shall include:</p> <ul style="list-style-type: none"> • The location of all soil-disturbing activities, including but not limited to new and/or improved access and spur roads. • The location of all streams and drainage structures that would be directly affected by soil-disturbing activities (such as stream crossings or public storm drains by the right-of-way and access roads). • BMPs to protect drainage structures, such as public storm drains, downstream of soil disturbance activities. • Design features to be implemented to minimize erosion during construction and during operation (if the project feature is to remain permanent after construction). • If soil cement is proposed, the specific locations must be defined in the Plan, and evidence of approval by the appropriate jurisdiction shall be submitted to the CPUC and BLM prior to its use. • The location and type of BMPs that would be installed to prevent off-site sedimentation and to protect aquatic resources. • Specifications for the implementation and maintenance of erosion control measures and a description of the erosion control practices, including appropriate design and installation details. • Proposed schedule for inspection of erosion control/SWPPP measures and schedule for corrective actions/repairs, if required. Erosion control/SWPPP inspection reports shall be provided to the CPUC EM. 	<p>SCE to submit Erosion Control Plan to the CPUC and BLM for review at least 60 days prior to construction.</p> <p>Prior to construction submit grading plans and all applicable permits.</p>	<p>The Erosion Control Plan is in the SWPPP and was approved on 8/10/2020</p>

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
	<p>Locations requiring erosion control/SWPPP corrective actions/repairs shall be tracked, including dates of completion, and documented during inspections. Inspections and monitoring shall be performed in compliance with the Federal and California Construction General Permits. The inspection reports shall be maintained and kept with their respective SWPPP, kept on site as required by the Federal and State Construction General Permits, and made available upon request to the RWQCB, CPUC, BLM, and representatives of the traversed counties and cities. Additionally, an Annual Report shall be filed for each reporting period in compliance with Federal and California Construction General Permit reporting requirements.</p> <p>SCE shall submit Grading Plans to the CPUC and BLM for approval that define the locations of the specific features listed above.</p> <p>SCE shall submit to the CPUC and BLM evidence of possession of applicable required permits for the representative land disturbance prior to engaging in soil-disturbing construction/demolition activities. Such permits may include, but are not limited to, a CWA Section 402 NPDES California General Permit for Storm Water Discharges Associated with Construction Activities (General Permit) from the applicable Regional Water Quality Control Board(s) (RWQCBs), and the Federal General Permit for Storm Water Discharges Associated with Construction Activities on Tribal Land.</p> <p>Prior to any ground disturbance in stream channels or other waters jurisdictional to the State of California or the Federal Government, SCE shall obtain a Streambed Alteration Agreement from the California Department of Fish and Wildlife, a Section 404 permit from the USACE, and a CWA Section 401 certification from the SWRCB and submit to the CPUC and BLM evidence of possession of such Agreement/permits.</p>		
MM HWQ-2	<p>Prepare and implement an HDD Fluid Management Plan. If Horizontal Directional Drilling (HDD) is required, an HDD Fluid Management Plan shall be prepared and implemented. The plan shall include, at a minimum, the following measures:</p> <ul style="list-style-type: none"> • Worst-case scenario development and response effort descriptions. • Drilling pressure monitoring to ensure pressures do not exceed those needed to penetrate the formation. 	If HDD is required, an HDD Fluid Management Plan will be prepared.	N/A

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
	<ul style="list-style-type: none"> • Monitoring by a minimum of two monitors (located both upstream and downstream) throughout drilling operations to ensure early detection and swift response in the event of a surface expression of drilling fluid. • Site-specific contingency measures shall be developed for the drill site, taking into consideration terrain, access, resource sensitivities, and proximity of suitable areas for staging response equipment for the unanticipated surface expression of drilling fluid. • Agency notification procedures. • Training for responding personnel. • Prevention, containment, clean up, and disposal of released drilling mud. Preventative measures shall include incorporation of the recommendations of a pre-construction geotechnical investigation to determine the most appropriate drilling depth and drilling mud mixture for the HDD bore site. Containment shall be accomplished through construction of temporary berms/dikes and use of silt fences, straw bales, absorbent pads, straw wattles, and plastic sheeting. Clean up shall be accomplished with plastic pails, shovels, portable pumps, and vacuum trucks. • A copy of the Streambed Alteration Agreement (SAA) shall be provided in the Plan. If the SAA also requires development of a similar plan to address HDD fluid management, that plan, as approved by CDFW, may be used to satisfy this measure provided it adequately addresses the requirements identified herein, as determined by the CPUC and BLM. 		
Noise			
MM N-2	<p>Provide advance notification of construction noise. Sixty days prior to construction, SCE shall prepare and submit a public notice mailer format to the CPUC for approval. The details of notification may be modified in consultation with CPUC as warranted by the circumstances.</p> <p>No less than 15 days prior to construction that would occur within 500 feet of residences, businesses, or other occupied structures, SCE shall distribute a public notice mailer. The notice shall state the type of construction activities that will be conducted, and the location and duration of construction. The notice shall identify, and SCE shall provide a public liaison person before and during construction to</p>	<p>60 days prior to construction, SCE shall submit public notice mailer format to the CPUC for approval.</p> <p>No less than 15 days prior to construction that would occur within 500 feet of residences,</p>	Completed 9/10/2020

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
	respond to concerns of residents about construction noise. SCE shall also establish a toll-free telephone number for receiving questions or complaints during construction and develop procedures for responding to callers. SCE shall address all complaints within one week of when the complaint is filed, and shall provide to the CPUC, within 15 days of the end of each month, a monthly report with records of all complaints and responses. SCE shall mail the notice to all residents or property owners within 500 feet of the right-of-way or within 1,000 feet of helicopter fly yards and flight paths.	businesses, or other occupied structures, SCE shall distribute a public notice mailer.	
Transportation			
MM T-1	<p>Prepare and implement a Construction Traffic Control Plan. Prior to the start of construction of a project component that could affect traffic (e.g., OPGW reconductoring over public roadways), SCE shall submit a Construction Traffic Control Plan for review and approval by state and local agencies responsible for public roads that would be directly affected by the construction activities and/or would require permits and approvals. The Construction Traffic Control Plan shall include, but not be limited to:</p> <ul style="list-style-type: none"> • The locations and use of flaggers, warning signs, barricades, delineators, cones, arrow boards, etc. according to standard guidelines outlined in the Manual on Uniform Traffic Control Devices, the Standard Specifications for Public Works Construction, and/or the California Joint Utility Traffic Control Manual. • The locations of all road or traffic lane segments that would need to be temporarily closed or disrupted due to construction activities. • The locations where guard poles, netting, or similar means to protect transportation facilities for any construction work requiring the crossing of a local street, highway, or rail line are proposed. • The use of continuous traffic breaks operated by the Highway Patrol on state highways (if necessary). • Plans to coordinate in advance with emergency service providers to avoid restricting the movements of emergency vehicles. Police departments and fire departments shall be notified in advance by SCE of the proposed locations, nature, timing, and duration of any roadway disruptions, and shall be advised of any access restrictions that could impact their effectiveness. At locations 	Prior to construction, SCE shall submit a Construction Traffic Control Plan for review and approval by state and local agencies for application on public roadways.	A Construction Traffic Control Plan was approved on 4/15/2021 for US95.

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
	<p>where roads will be blocked, provisions shall be ready at all times to accommodate emergency vehicles, such as immediately stopping work for emergency vehicle passage, or providing short detours, or developing alternate routes in conjunction with the public agencies.</p>		
MM T-2	<p>Repair roadways and transportation facilities damaged by construction activities. If roadways, sidewalks, medians, curbs, shoulders, or other such transportation features are damaged by project construction activities, as determined by Caltrans or other public agency responsible for the transportation feature, such damage shall be repaired and restored to the pre-project condition by SCE. Prior to construction, SCE shall establish the pre-construction conditions of the roads within 500 feet in each direction of project access points (where heavy vehicles will leave public roads to reach unpaved access roads, yards, or other project sites) and confer with state and local agencies regarding roads in the agency’s jurisdiction to be crossed by the project components. Establishment of existing conditions may include dated photographic or video documentation.</p>	<p>Prior to construction, SCE shall establish the preconstruction conditions of the roads within 500 feet in each direction of project access points and confer with state and local agencies.</p>	<p>Preconstruction photos will be taken prior to construction.</p>
MM T-3	<p>Prepare and implement a final helicopter use plan. SCE and its contractor shall prepare and obtain approval of a Final Helicopter Use Plan 30 days prior to using helicopters to transport personnel, materials, or equipment for the deconstruction of existing project facilities or construction of new or replacement project facilities. The plan shall identify the specific locations requiring deconstruction or construction work using helicopters. The Final Helicopter Use Plan shall draw upon protocols and methods used on previous transmission line projects and shall be submitted to CPUC and BLM for approval.</p> <p>The Federal Aviation Agency (FAA) has jurisdiction over U.S. airspace, aircraft, aircraft operations, airports, and pilots. To the extent that they do not conflict with any FAA requirements, the following shall apply to helicopter use and be incorporated in the Final Helicopter Use Plan.</p> <ul style="list-style-type: none"> • All aircraft and pilots shall be in full compliance with applicable FAA requirements and standards. • On the day before a flight, helicopter flight information shall be provided by email to CPUC/BLM monitors regarding the specific sites to be used for helicopter retrieval of materials, equipment, or personnel and the destination of the materials, equipment, or personnel being transported. Information provided in the email shall include pilot name, contact number, aircraft type, 	<p>30 days prior to using helicopters, SCE shall submit a Helicopter Use Plan to CPUC and BLM for approval.</p> <p>Once the Helicopter Use Plan is made final, SCE shall provide a copy as a courtesy to each jurisdiction through which the Project passes.</p>	<p>Helicopter Use Plan was approved on 11/17/2020</p>

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
	<p>aircraft registration number, aircraft color, work/flight area, anticipated beginning and completion times, and scope of work.</p> <ul style="list-style-type: none"> • The specific locations requiring deconstruction or construction work using helicopters shall be identified. • Temporary staging of materials outside of approved yards or on access or spur roads shall not occur without prior approval of CPUC or BLM, as appropriate. • The yards to and from which helicopters would fly (fly yards) shall be identified and shall be of sufficient size to ensure safe operations, given the other activities occurring at the yards and the vicinity. • Fly yards shall be no closer than a horizontal distance of 475 feet from occupied residences to avoid unacceptable nuisances. • Site-specific steps taken to avoid nuisances and ensure safe refueling shall be identified for each fly yard. • Flight paths that minimize flights in wilderness areas and near schools, hospitals, nursing homes, and other sensitive group receptors shall be identified and followed. • Except in an emergency, helicopters shall land or hover near the ground only in areas previously approved for landing, and all dust control and biological and cultural resource protection requirements shall apply. • External loads will be secured by appropriate rigging, including boxing, netting, choking, and cabling, or other suitable means. Only qualified riggers shall prepare and attach external loads to helicopters, and rigging shall be appropriate to the nature of the load, including the use of devices as necessary to prevent materials being lost in flight. Where appropriate to reduce load in-flight spinning and movement, drag chutes will be attached to loads. The need for drag chutes will be determined by the pilot and rigging personnel, where appropriate. At locations where rigging is to occur, a sufficient supply of appropriate rigging and containment materials in good repair shall be on hand at all times. 		

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
	<ul style="list-style-type: none"> • All aircraft are to be configured with weight sensors such that, when preparing to haul external loads, the pilot is able to determine the weight of the load being lifted. • Yards or landing zones shall have a designated qualified individual managing the movement of aircraft in and out of the yard or landing zone when flight activity is high. • Appropriate protocols for communication among pilots and between pilots and the ground shall be developed and implemented. • A GPS-based data system shall be installed in each aircraft. <ul style="list-style-type: none"> ○ The system shall identify for the pilot all project-approved project flight paths and those areas where overflights are restricted (such as seasonally restricted bird nesting areas and sensitive residential or institutional areas) and shall be updated as often as any flight restrictions are implemented or lifted. ○ The system shall automatically record and preserve flight data sufficient to identify the aircraft’s flight path, including altitude above ground. The system shall be capable of providing the information required with regard to flight path and aircraft identifier and provide a location “ping” no less frequently the once every 3 seconds. These data shall be collected daily and maintained by SCE or its contractor for a period of no less than six months and made available to CPUC or BLM upon request. <p>The Helicopter Use Plan shall be submitted to CPUC and BLM for review and approval at least 30 days prior to the use of helicopters on the project. Once the Helicopter Use Plan is made final, a copy shall be provided as a courtesy to each jurisdiction through which the Project passes.</p>		
Tribal Cultural Resources			
APM-TCR-2	Tribal Engagement Plan. A tribal engagement plan shall be prepared, which will detail how Native American tribes will be engaged and informed throughout the proposed project. The tribal engagement plan will be included in the CRMP.	Include Tribal Engagement Plan within CRMP.	The Tribal Engagement Plan will be included in the CRMP. Tribal consultation was completed in 2019.
Also see MMs CR-1 through CR-8 above, under Cultural Resources.			

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
Utilities and Service Systems			
MM UT-1	<p>Provide cathodic protection. Prior to commencing construction or as soon as such data are available, if it is not available before construction, SCE shall determine and report to CPUC and BLM the location of adjacent utilities and other metallic or conducting objects susceptible to induced voltages and currents. The scope of SCE’s report shall include the results of an alternating current interference study by SoCalGas on the natural gas pipelines that parallel or cross portions of the Lugo-Mohave 500 kV Transmission Line.</p> <p>If SCE identifies other utilities near the 500 kV Transmission Lines that may be susceptible to increased risk of corrosion due to induced currents or voltages, SCE shall conduct or have conducted an alternating current interference study during construction of the ELM Project that evaluates the alternating current interference effects of the 500 kV transmission lines on such other utilities. The study shall include the development of a model using the maximum magnetic field levels for the transmission lines, including the conductor arrangement. For all utilities identified with a corrosion potential, SCE shall coordinate with the owner of the utility and use data gathered in the alternating current interference study to determine appropriate design measures to protect the utility from corrosion, such as ground mats or gradient control wires for cathodic protection of buried pipelines and other utilities. The study, summary of coordination with potentially affected utilities, and specifications of any design measures to be installed shall be submitted to the CPUC and BLM for review and approval at least 60 days prior to initiation of installation of such protection.</p>	SCE shall provide CPUC and BLM utility/metallic object locations as soon as available and conduct alternating current interference study at required locations and submit to CPUC and BLM for review and approval at least 60 days prior to cathodic protection installation.	Cathodic protection is not required for the components subject to this CPUC NTPR 3.
MM UT-2	<p>Implement mitigation measures during pipeline protection work. Any agreement between SCE on the one hand and any party undertaking installation of pipeline protection measures required as a result of the ELM Project on the other hand shall include a requirement that applicable mitigation measures required during construction of the ELM Project also apply to and be implemented during any required pipeline-related work. At a minimum, and to the extent that they apply in the geographic area of the pipeline work, these will include mitigation measures for impacts to biological resources, cultural and tribal cultural resources, and hazards and hazardous materials. The BLM and NPS may substitute equally effective mitigation measures or may require additional measures be implemented. A copy of the agreement between SCE and any other party for the pipeline work shall be provided to CPUC, BLM, and NPS. Business confidential information may be</p>	A copy of the agreement between SCE and any other party for pipeline work shall be provided to CPUC, BLM, and NPS.	Construction subject to this CPUC NTPR 3 would not affect pipelines.

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
	redacted, but the general nature of any redaction shall be identified. Absent a binding agreement between SCE and any other party to implement the required mitigation measures, or equally effective measures imposed by BLM and/or NPS, SCE will not be authorized to fund any of the required pipeline work.		
MM UT-3	Provide safety features for induced currents on adjacent metallic objects. Prior to commencing construction or as soon as such data are available, if it is not available before construction, SCE shall determine and report to CPUC and BLM the location of metallic or conducting objects that may present a shock hazard to the public due to induced voltages or currents. SCE shall prepare an Induced Current Touch study that evaluates the conductive and inductive interference effects of the 500 kV transmission lines and new overhead distribution lines on the identified conductive objects. The Induced Current Touch study, including the criteria and approach that were used to determine what objects could present a shock and the details of the grounding or other measures to be installed, shall be submitted to the CPUC and BLM for review and approval.	SCE shall provide CPUC and BLM metallic object locations that may present a shock hazard as soon as available and prepare an Induced Current Touch Study for CPUC and BLM review and approval.	Construction subject to this CPUC NTPR 3 would not affect metallic objects.
Wildfire			
MM WF-1	<p>Prepare and implement a Fire Management Plan. A project-specific Fire Management Plan for construction of the ELM project shall be prepared by SCE and submitted for review and approval by the CPUC prior to initiation of construction. The draft copy of the Plan must also be provided to each responsible fire agency at least 90 days before the start of construction activities in areas designated as Very High or High Fire Hazard Severity Zones with a request for comments on the Plan's adequacy within 30 days. Plan reviewers shall include CPUC, BLM, CAL FIRE, and San Bernardino County. Comments received on the draft Plan shall be provided to SCE from all other reviewers, and SCE shall resolve each comment in consultation with the commenting agency. CPUC shall approve the final Plan, which shall be provided to the Plan reviewing agencies at least 30 days prior to the initiation of construction activities in the Fire Hazard Severity Zones. SCE shall fully implement the Plan during all construction activities.</p> <p>A qualified project Fire Marshal or person of similar title and experience shall be established by SCE to implement and enforce all provisions of the approved Fire Management Plan as well as perform other duties related to fire detection, prevention, and suppression for the project. The Fire Marshal shall monitor construction activities to ensure implementation and effectiveness of the plan.</p>	Prior to construction, SCE to submit Fire Management Plan to CPUC for review and approval.	The Fire Management Plan was approved 11/17/2020

Mitigation Number	Applicant-Proposed Mitigation/Mitigation Measure Requirements	Requirement	Status
	<p>The Plan shall cover:</p> <ul style="list-style-type: none"> • The purpose and applicability of the plan; • Responsibilities and duties; • Preparedness training and drills; • Procedures for fire reporting, response, and prevention that include: <ul style="list-style-type: none"> ○ identification of daily site-specific risk conditions, ○ the appropriate tools and equipment needed on vehicles and to be on hand at sites, ○ reiteration of fire prevention and safety considerations during tailboard meetings, and ○ daily monitoring of the red-flag warning system with appropriate restrictions on types and levels of permissible activity; • Coordination procedures with BLM and San Bernardino County fire officials; • Crew training, including fire safety practices and restrictions; and • Methods for verification that Plan protocols and requirements are being followed. 		

Appendix B: Construction Equipment and Workforce Estimates

Activity	Equipment Type	Approximate Quantity	Approximate Number of Workers
OPGW Installation, OHGW Removal, Splicing Peak Modification	Helicopter (Hughes 530F)	4	44
	Boom/crane truck	2	44
	Backhoe/front loader	4	44
	Bullwheeler puller	1	44
	Manlift/bucket truck	4	44
	R/T crane (M)	2	44
	Sag cat w/2 winches	2	44
	Skid steer mulcher	2	44
	Worker commute automobile	44	44
	Static truck/tensioner	1	44
	Wire truck/trailer	4	44
	1-ton truck (4x4)	6	44
	¾-ton truck (4x4)	4	44
	Dump truck	1	44
	Fuel, helicopter support truck	4	44
	Lowboy truck/trailer	3	44
	Splicing lab	2	44