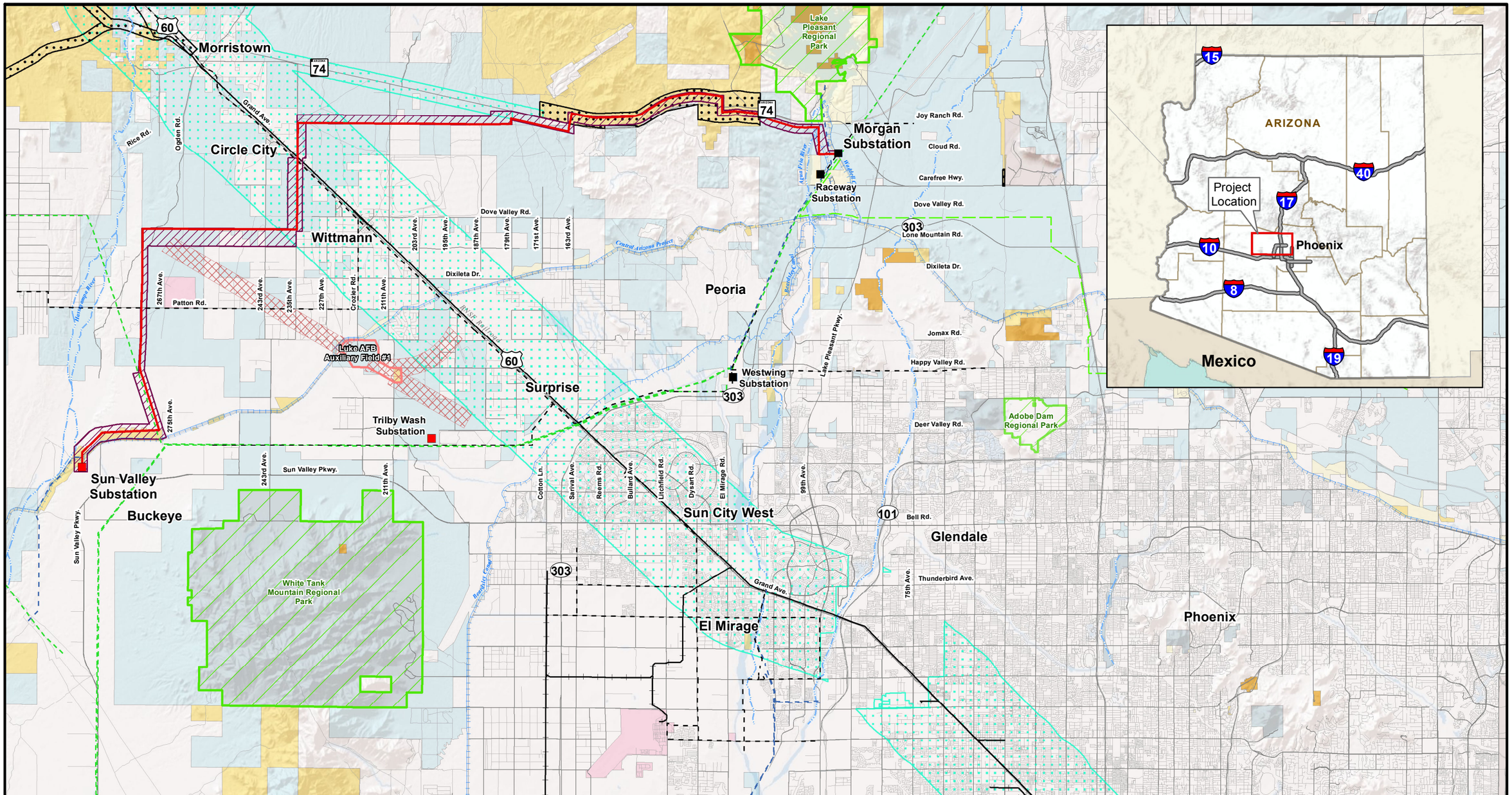


Legend

- Sun Valley to Morgan Proposed Action Right-of-Way
- ACC Certificated Route
- Maricopa County Scenic Corridor
- BLM Transportation Corridor
- Luke Air Force Base (AFB) Auxiliary Field #1
- Auxiliary Field #1 Accident Potential Zone
- Existing High-Voltage Substation
- Approved High-Voltage Substation
- Existing 500kV Transmission Line
- Existing 230kV Transmission Line
- Existing 69kV Transmission Line
- Regional Park

Surface Land Management

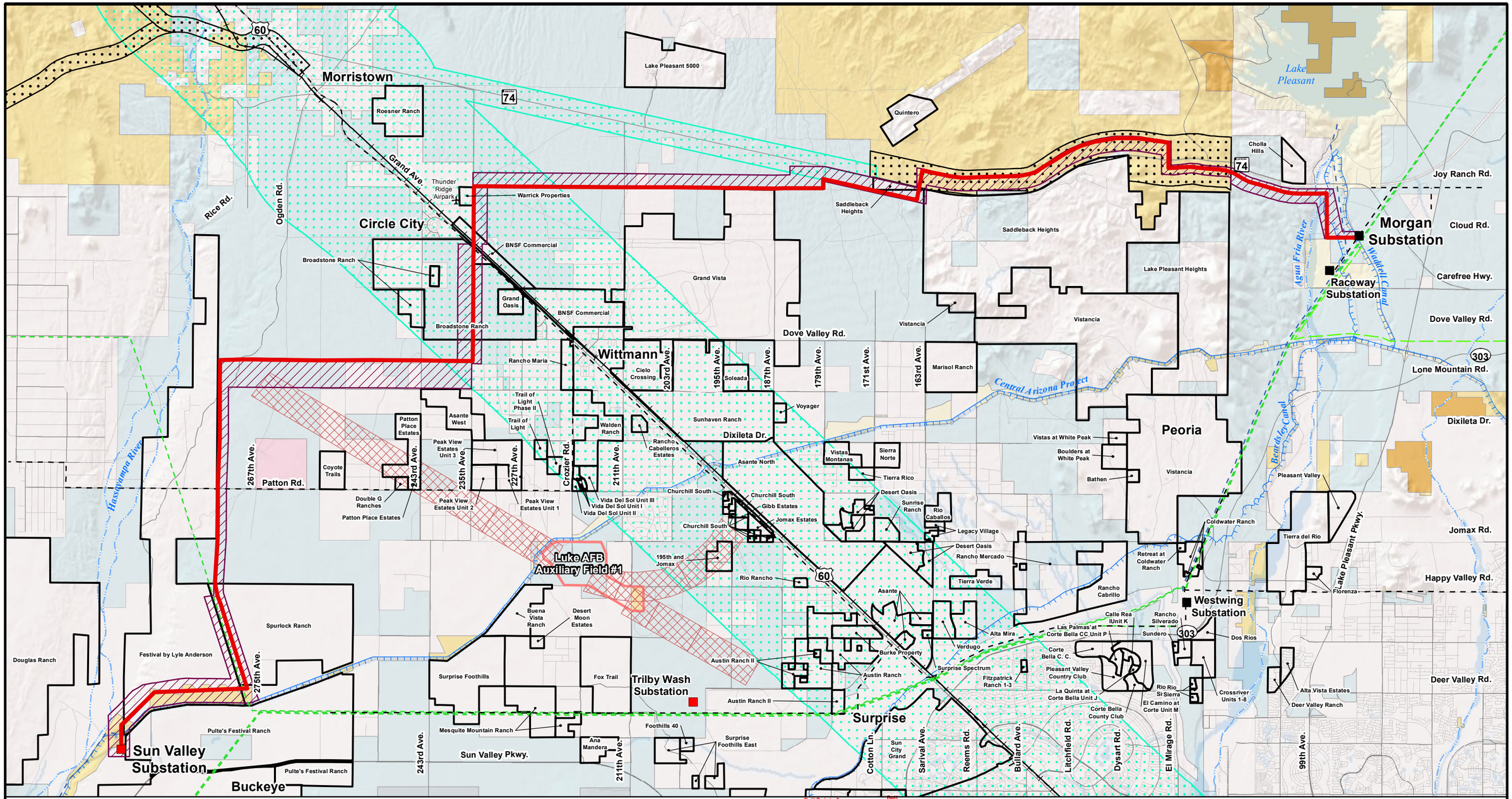
- BLM
- USBR
- County
- Military
- Local or State Parks
- State Trust Lands
- Private

Base Map: ESRI Shaded Relief accessed at ArcGISOnline.com

N

2 0 2 Miles

Figure 1.1-1
Project Location Map
Sun Valley to Morgan 500/230kV Transmission Line EIS Project



Legend

- Sun Valley to Morgan Proposed Action Right-of-Way
- ACC Certificated Route
- BLM Transportation Corridor
- Existing High-Voltage Substation
- Approved High-Voltage Substation
- Existing 500kV Transmission Line
- Existing 230kV Transmission Line
- Existing 69kV Transmission Line
- Luke Air Force Base (AFB) Auxiliary Field #1
- Auxiliary Field #1 Accident Potential Zones
- Existing and Future Development Areas
- Maricopa County Scenic Corridor

Surface Land Management

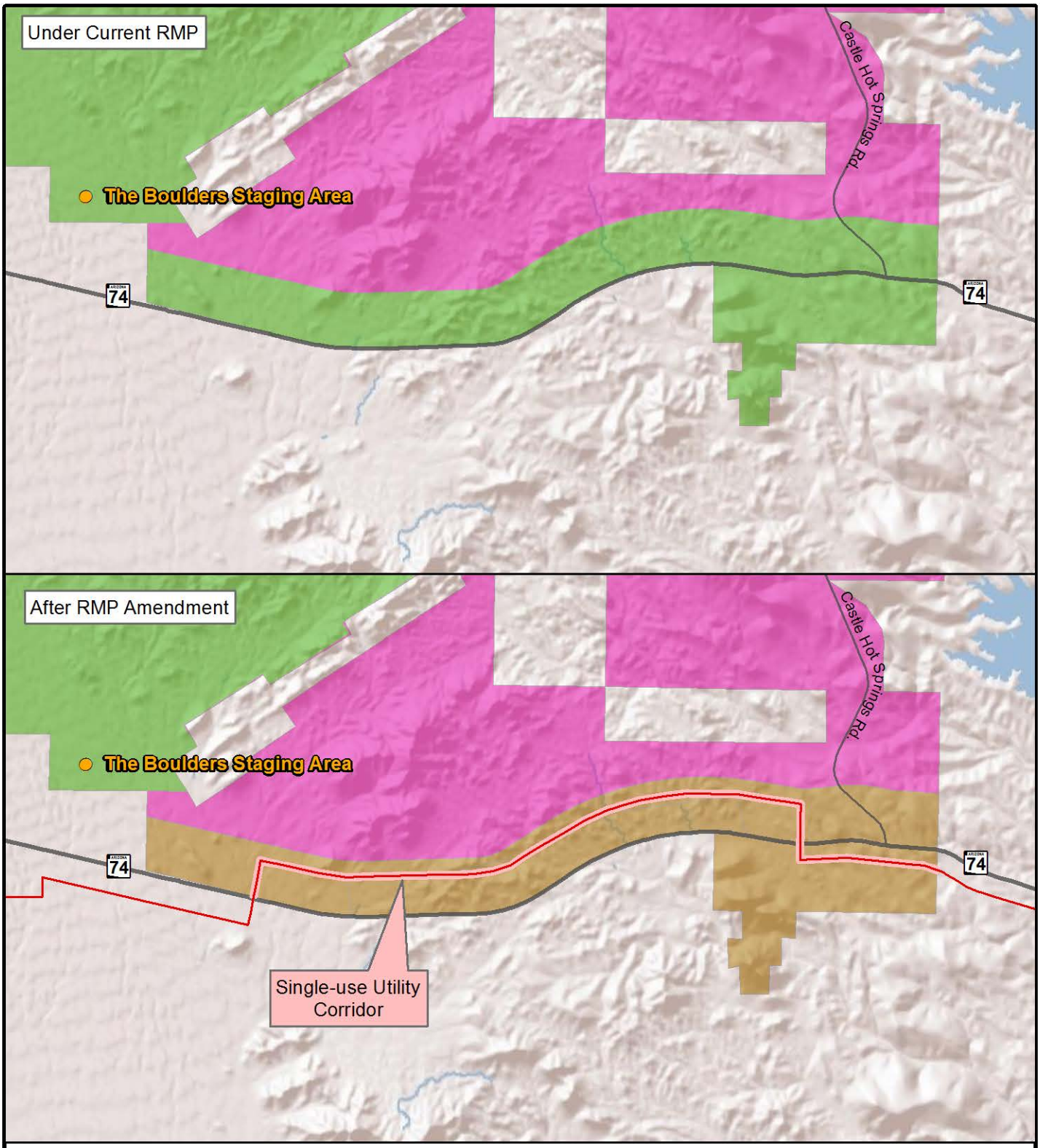
- BLM
- USBR
- County
- Military
- Local or State Parks
- State Trust Lands
- Private

Base Map: ESRI Shaded Relief accessed at ArcGISOnline.com

N

2 0 2 Miles

Figure 2.4-1a
Proposed Action Route
Sun Valley to Morgan 500/230kV Transmission Line EIS Project



Base Map: ESRI Shaded Relief accessed at ArcGISOnline.com
BLM 2011

Legend

- Sun Valley to Morgan Proposed Action Route
- 200-foot-wide ROW & Single-use Utility Corridor
- The Boulders Staging Area

VRM Class

- II
- III
- IV

N

1 0.5 0 1 Miles

Figure 2.4-1b
Proposed Action - RMP Amendments
Sun Valley to Morgan 500/230kV - Transmission Line EIS Project

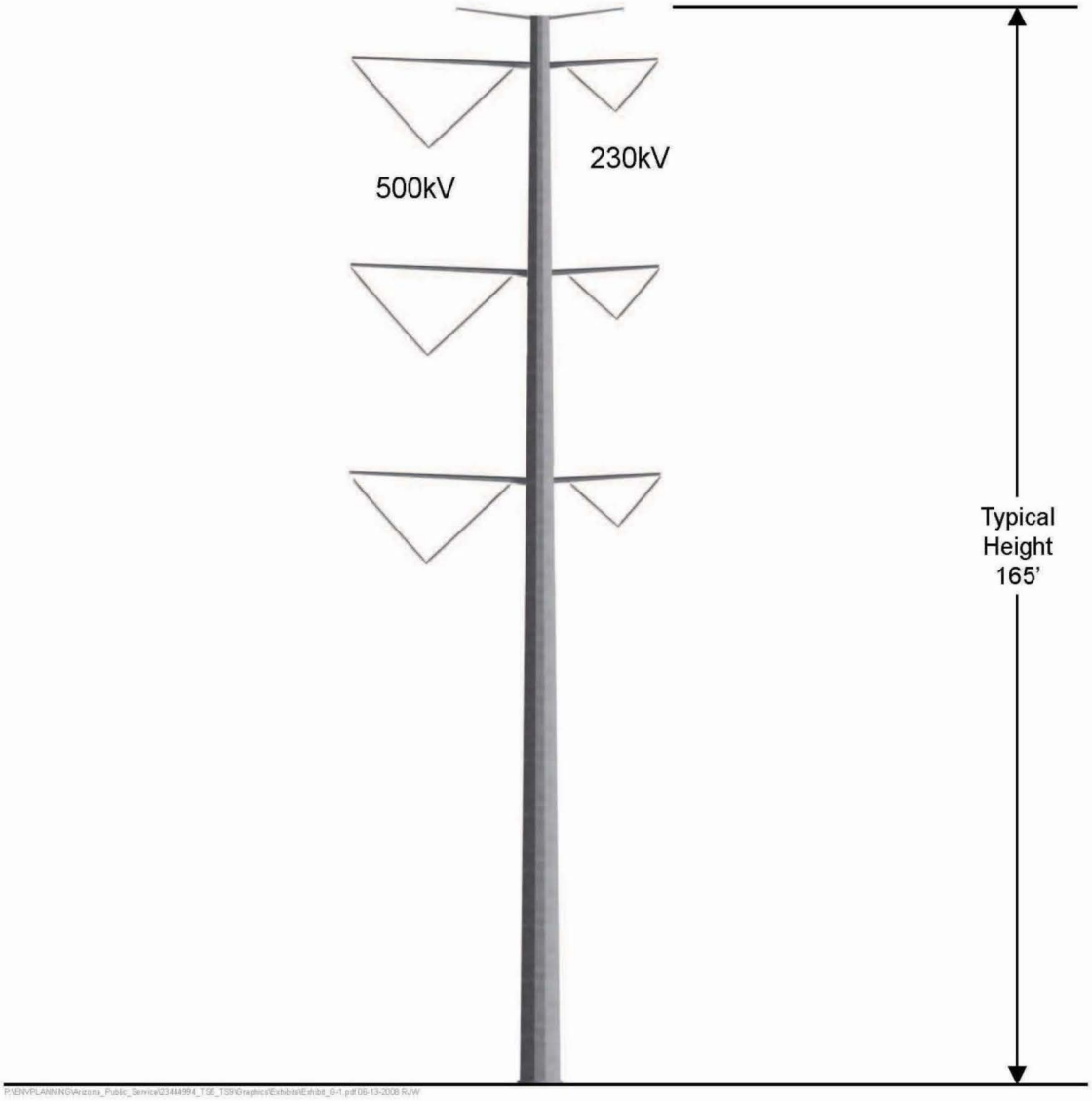


Figure 2.4-2 Typical 500/230kV Tangent Pole

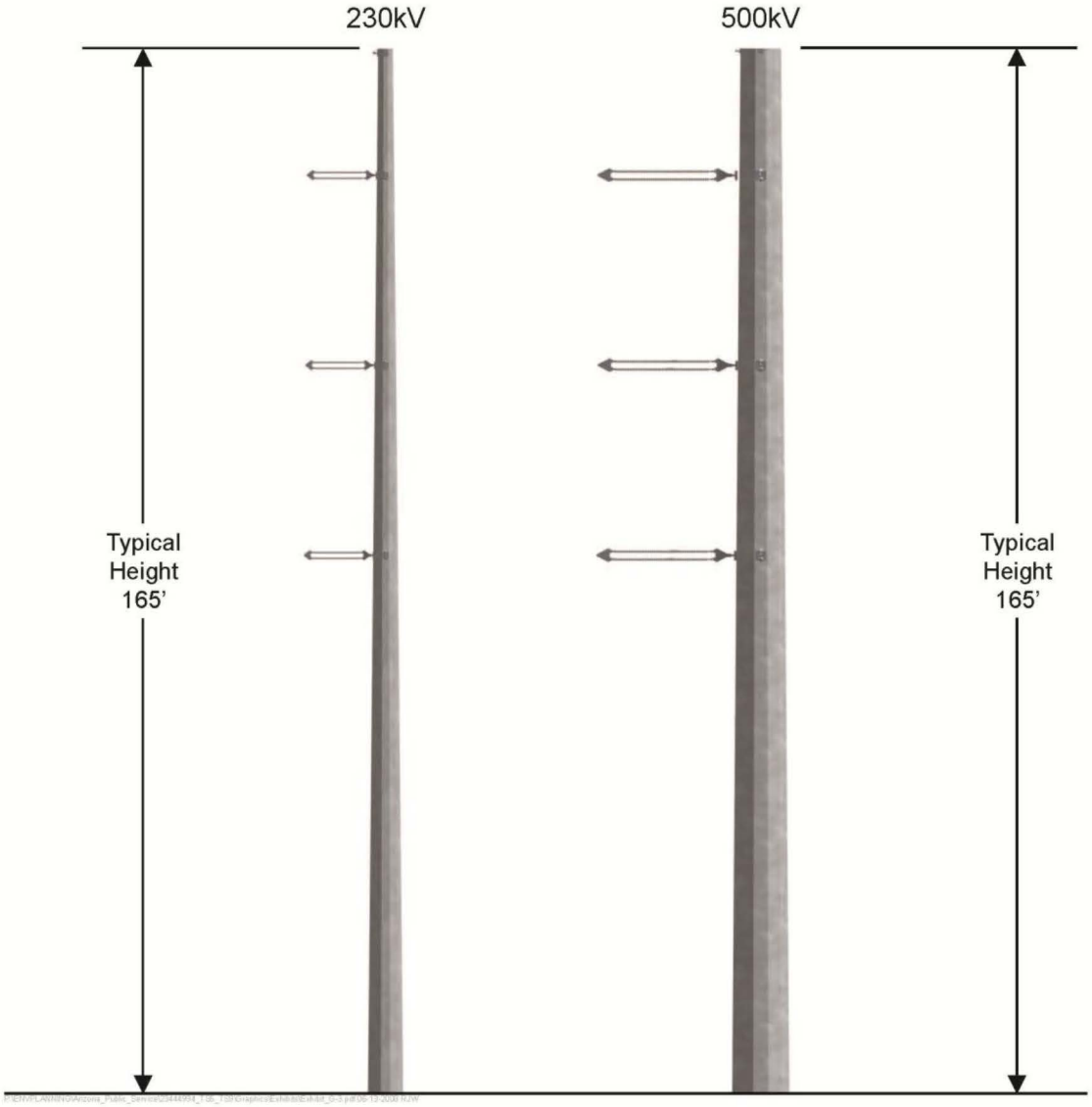


Figure 2.4-3 Typical 500/230kV Line Angle Poles

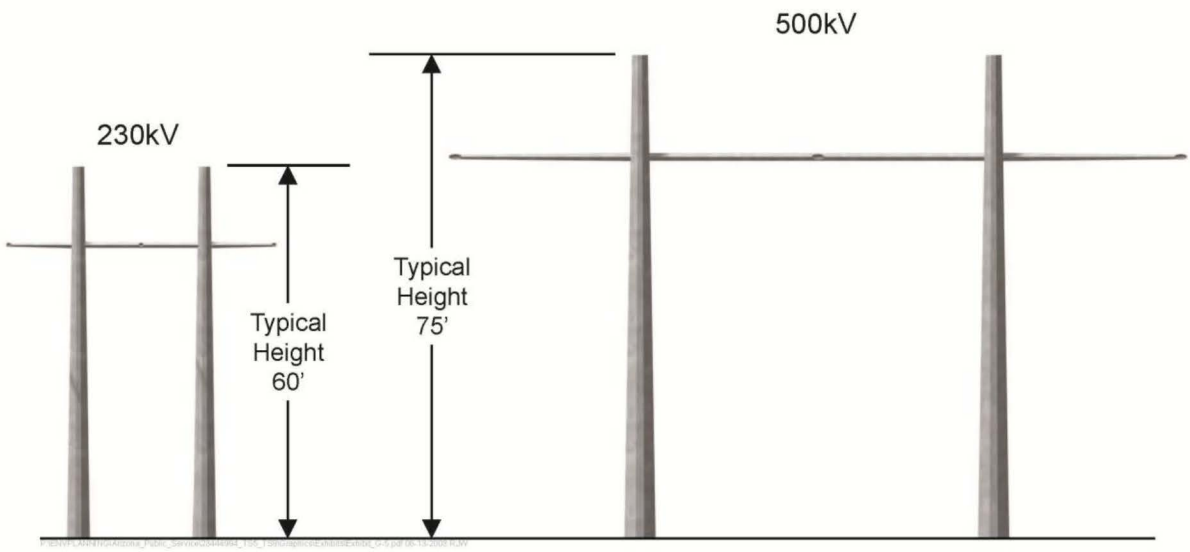


Figure 2.4-4 Typical 500/230kV H-Frame Structures

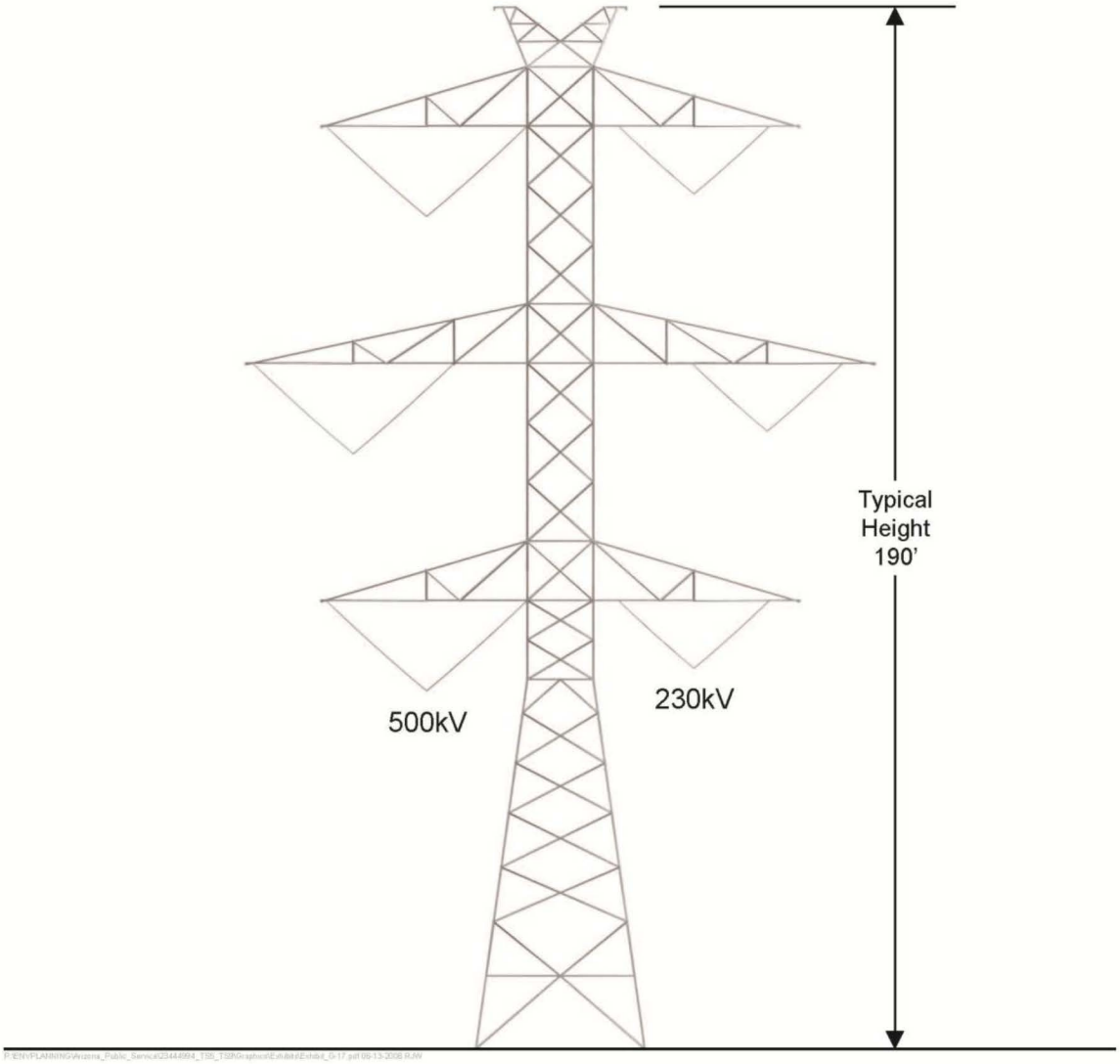


Figure 2.4-5 Double Circuit 500/230kV Tangent Lattice Tower

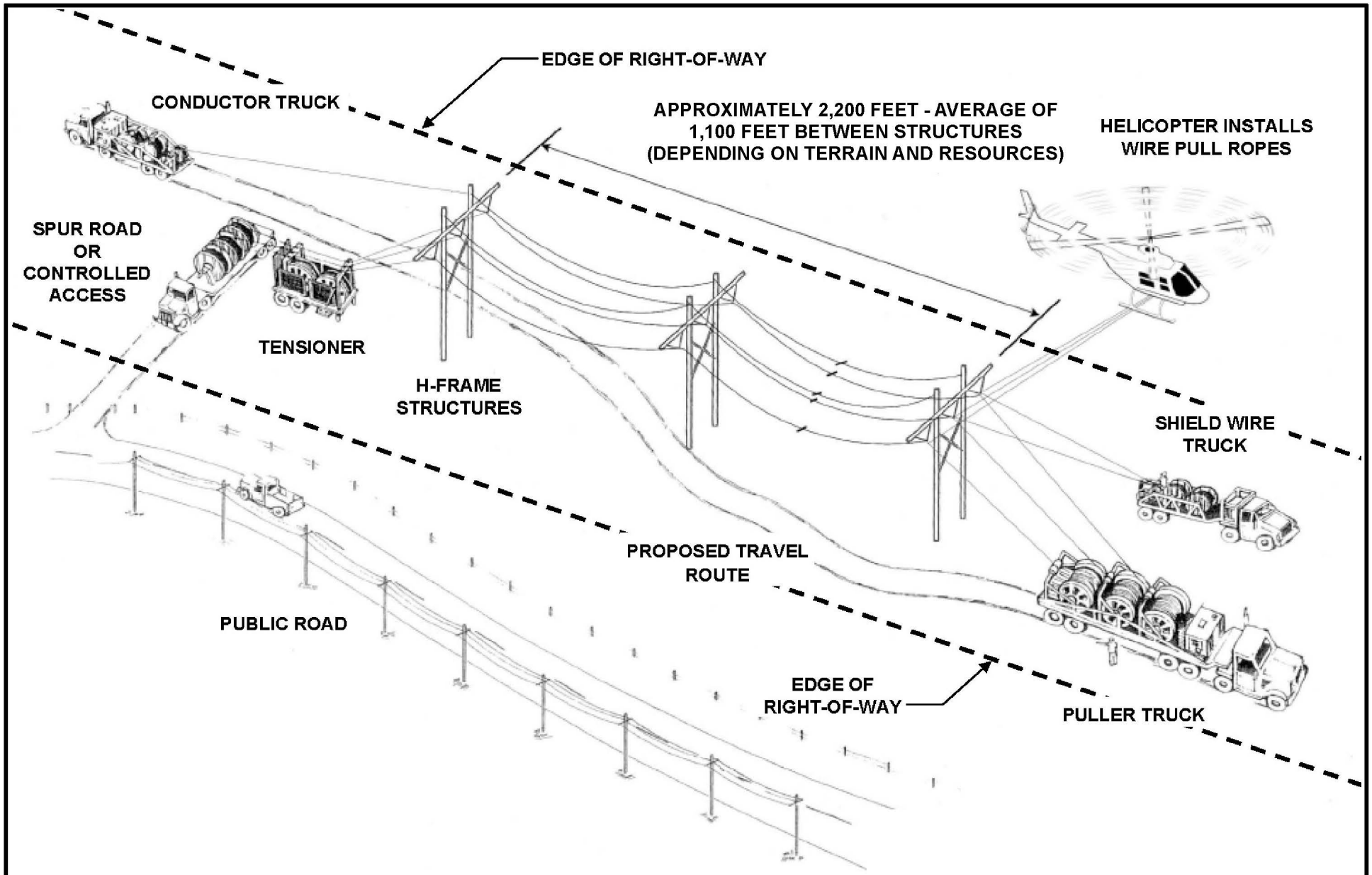


Figure 2.4-6
Basic Wire Handling Equipment
Sun Valley to Morgan 500/230kV Transmission Line EIS Project

Source: Sierra Pacific Power Co., *Alturas Transmission Line Draft EIR/IS,* June 1997.

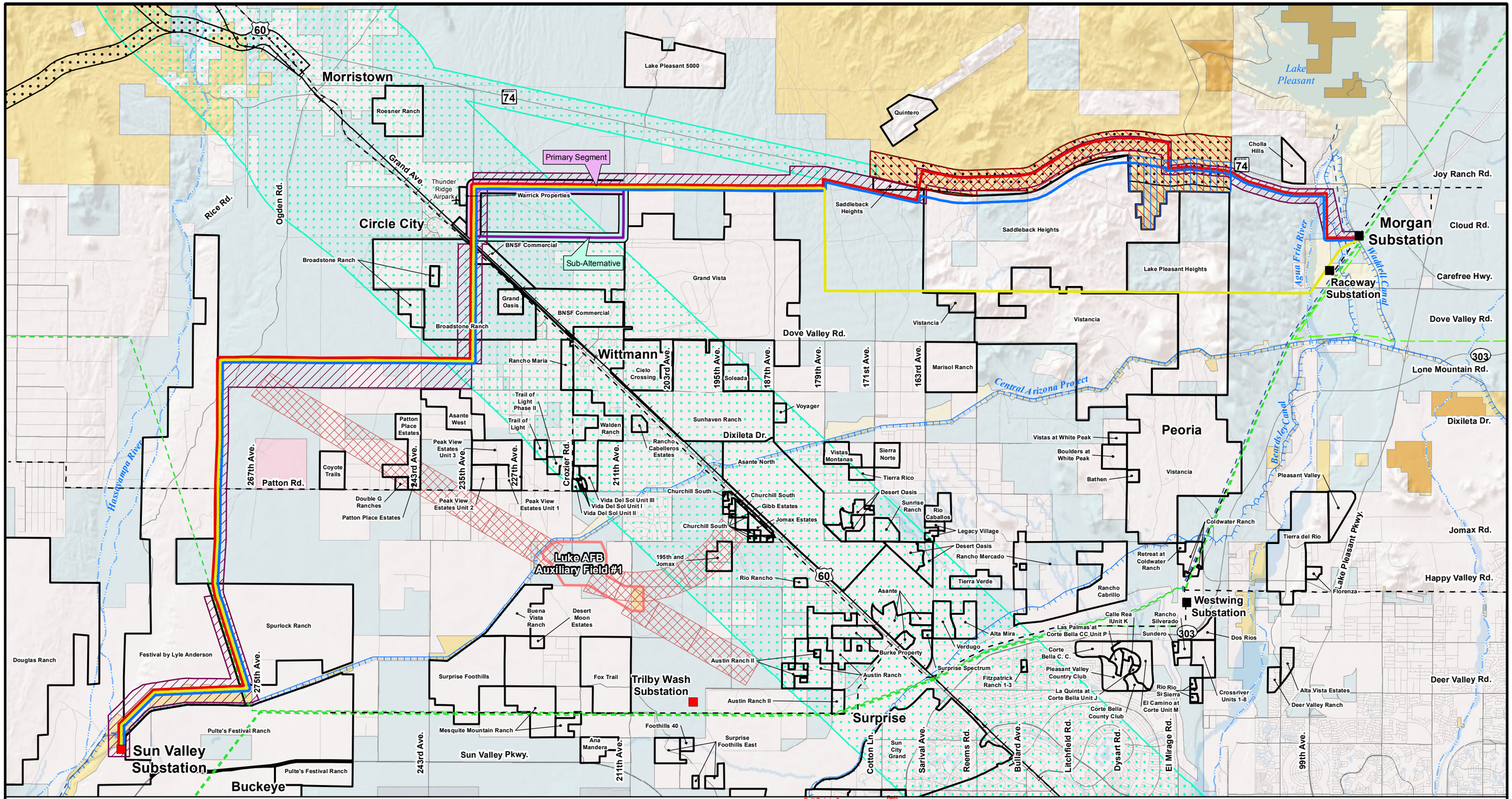
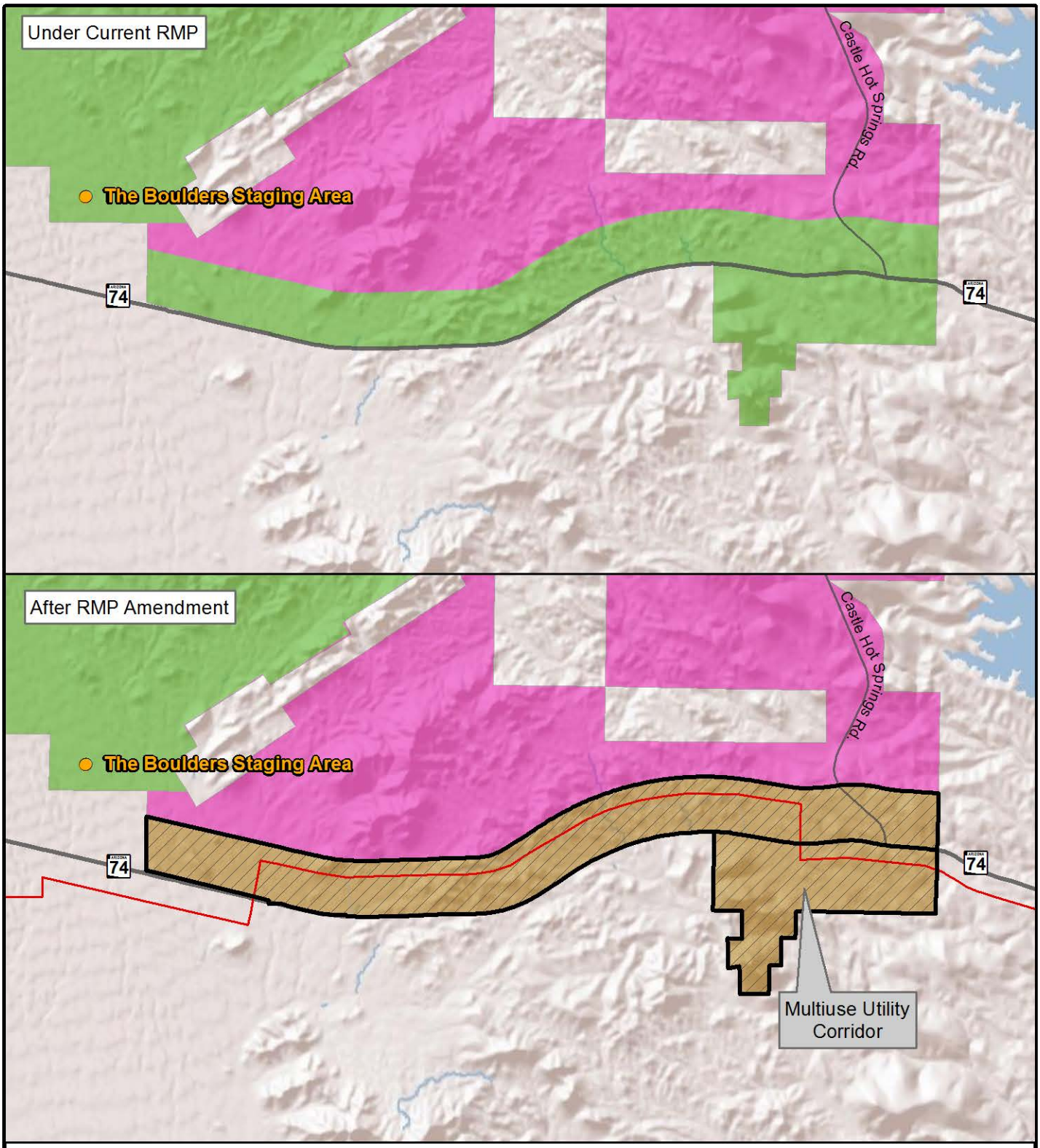


Figure 2.5-1a
Action Alternatives
Sun Valley to Morgan 500/230kV Transmission Line EIS Project



Base Map: ESRI Shaded Relief accessed at ArcGISOnline.com
BLM 2011

Legend

- Sun Valley to Morgan Proposed Action Route
- Multiuse Utility Corridor
- The Boulders Staging Area

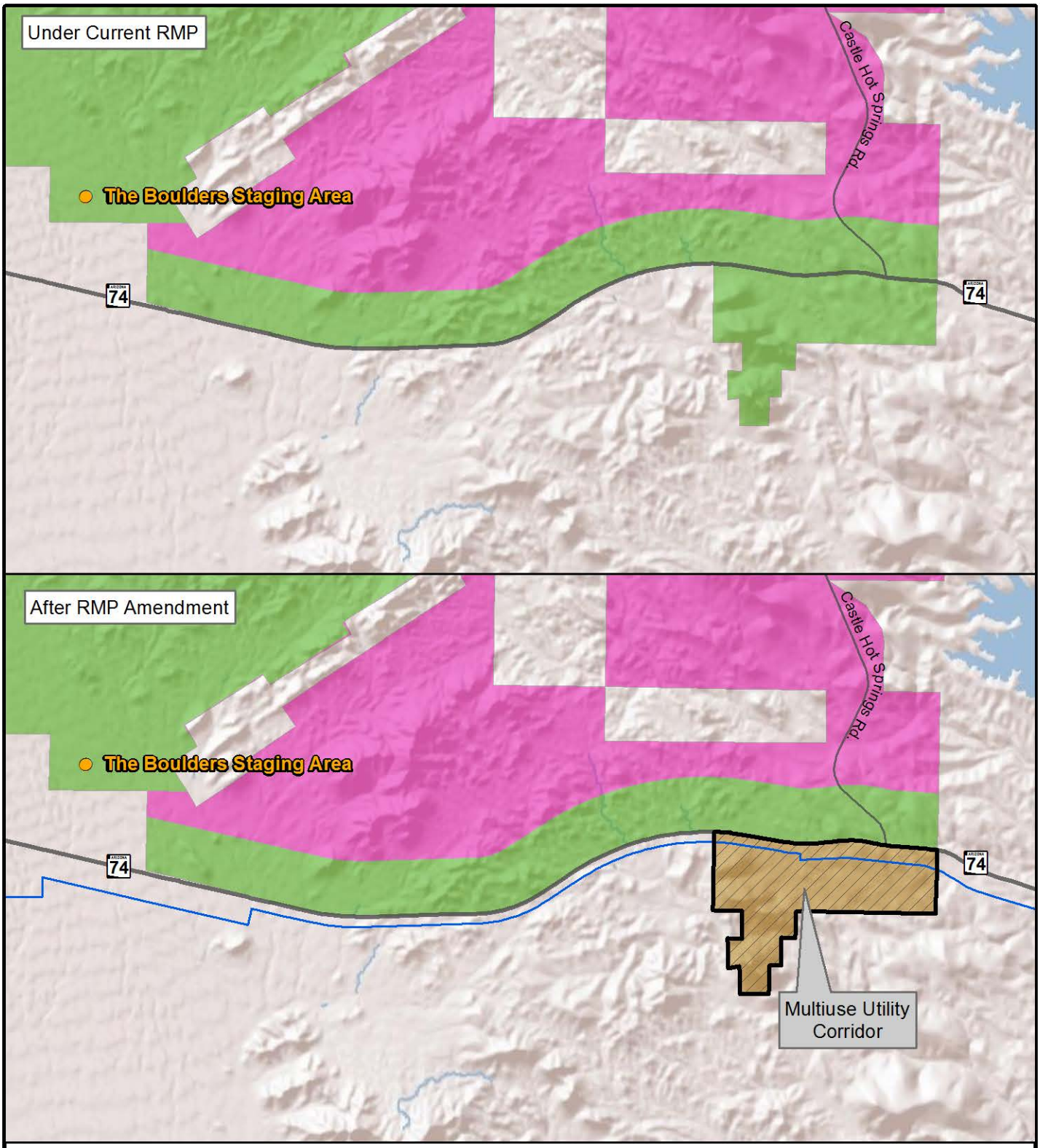
VRM Class

- II
- III
- IV

N

1 0.5 0 1 Miles

Figure 2.5-1b
Alternative 1 -
RMP Amendments
Sun Valley to Morgan 500/230kV -
Transmission Line EIS Project



Legend

Base Map: ESRI Shaded Relief accessed at ArcGISOnline.com
BLM 2011

Alternative 2 Route

Multiuse Utility Corridor

The Boulders Staging Area

VRM Class

II

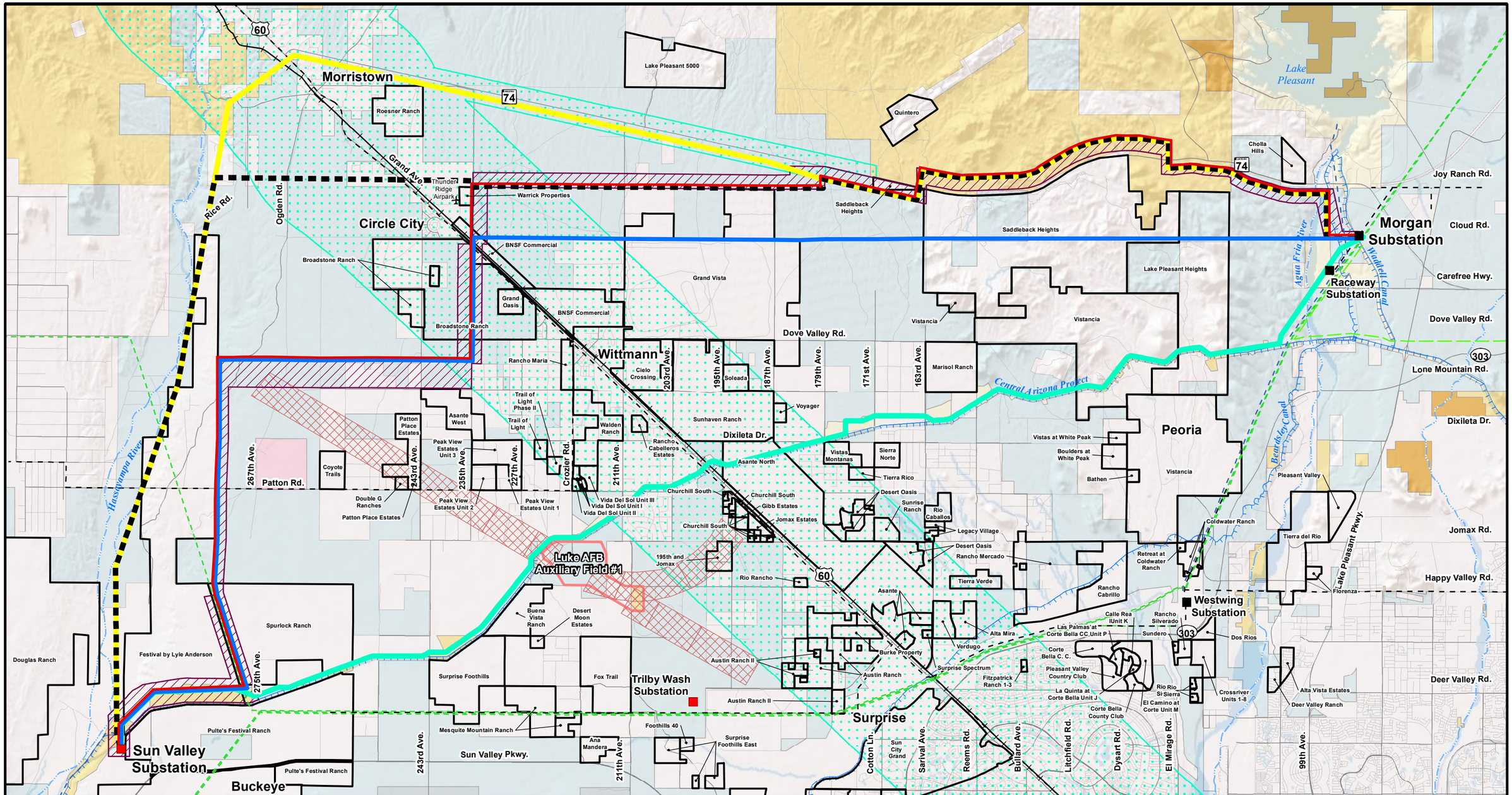
III

IV

N

1 0.5 0 1 Miles

Figure 2.5-1c
Alternative 2 -
RMP Amendments
Sun Valley to Morgan 500/230kV -
Transmission Line EIS Project



Legend

- Sun Valley to Morgan Proposed Action Right-of-Way
- Cloud Road Route
- Hassayampa-Western SR 74 Route
- Hassayampa-Joy Ranch Road Route
- CAP Complete Route
- ACC Certificated Route
- Existing High-Voltage Substation
- Approved High-Voltage Substation
- Existing 500kV Transmission Line
- Existing 230kV Transmission Line
- Existing 69kV Transmission Line
- Luke Air Force Base (AFB) Auxiliary Field #1
- Auxiliary Field #1 Accident Potential Zones
- Existing and Future Development Areas
- Maricopa County Scenic Corridor

Surface Land Management

- BLM
- USBR
- County
- Military
- Local or State Parks
- State Trust Lands
- Private

Base Map: ESRI Shaded Relief accessed at ArcGISOnline.com

N

2 0 2 Miles

Figure 2.7-1
Cloud Road Route, Hassayampa-Western SR 74 Route,
Hassayampa-Joy Ranch Road Route, CAP Complete Route
Considered but Eliminated from Detailed Analysis
Sun Valley to Morgan 500/230kV Transmission Line EIS Project

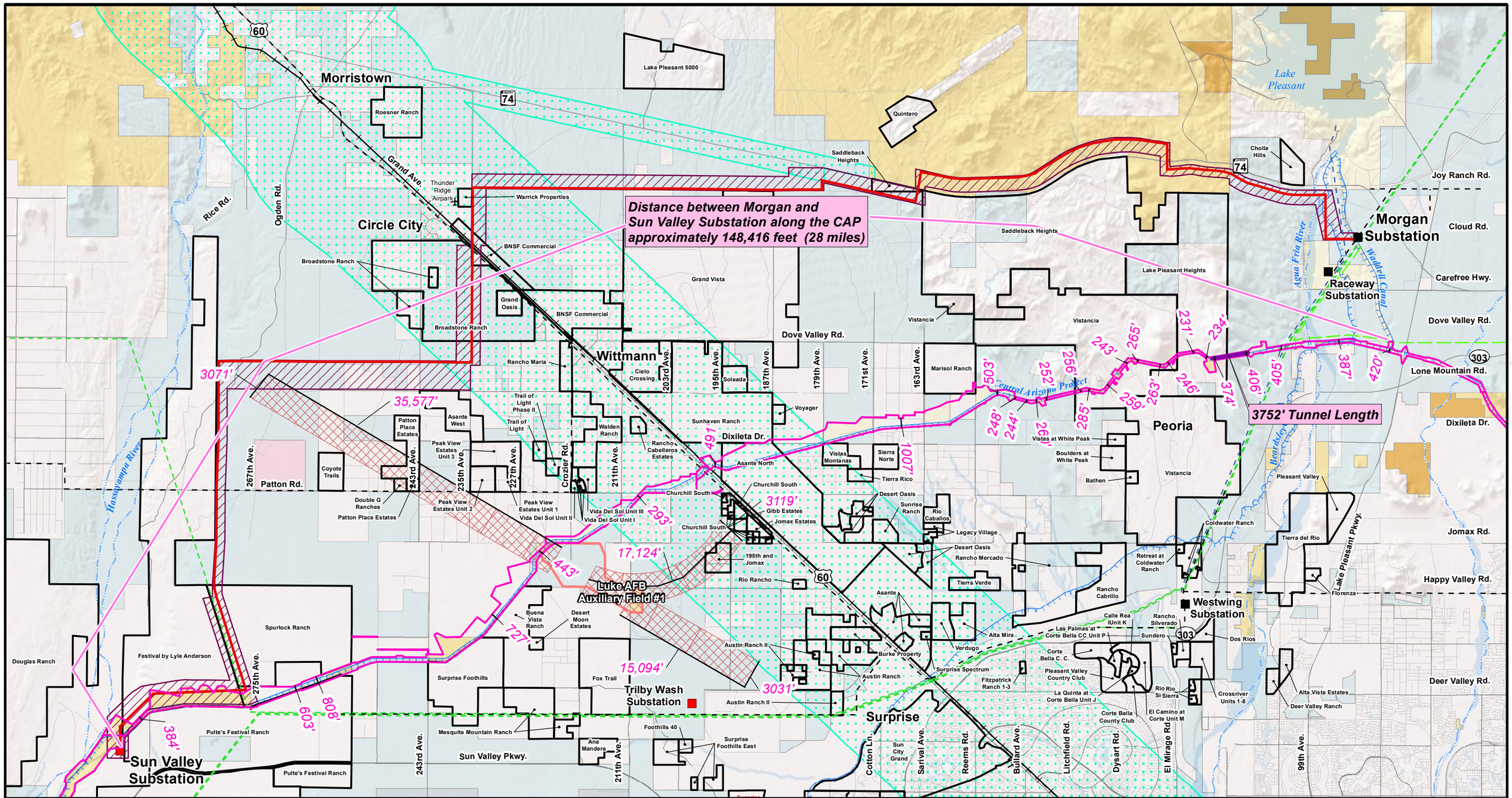
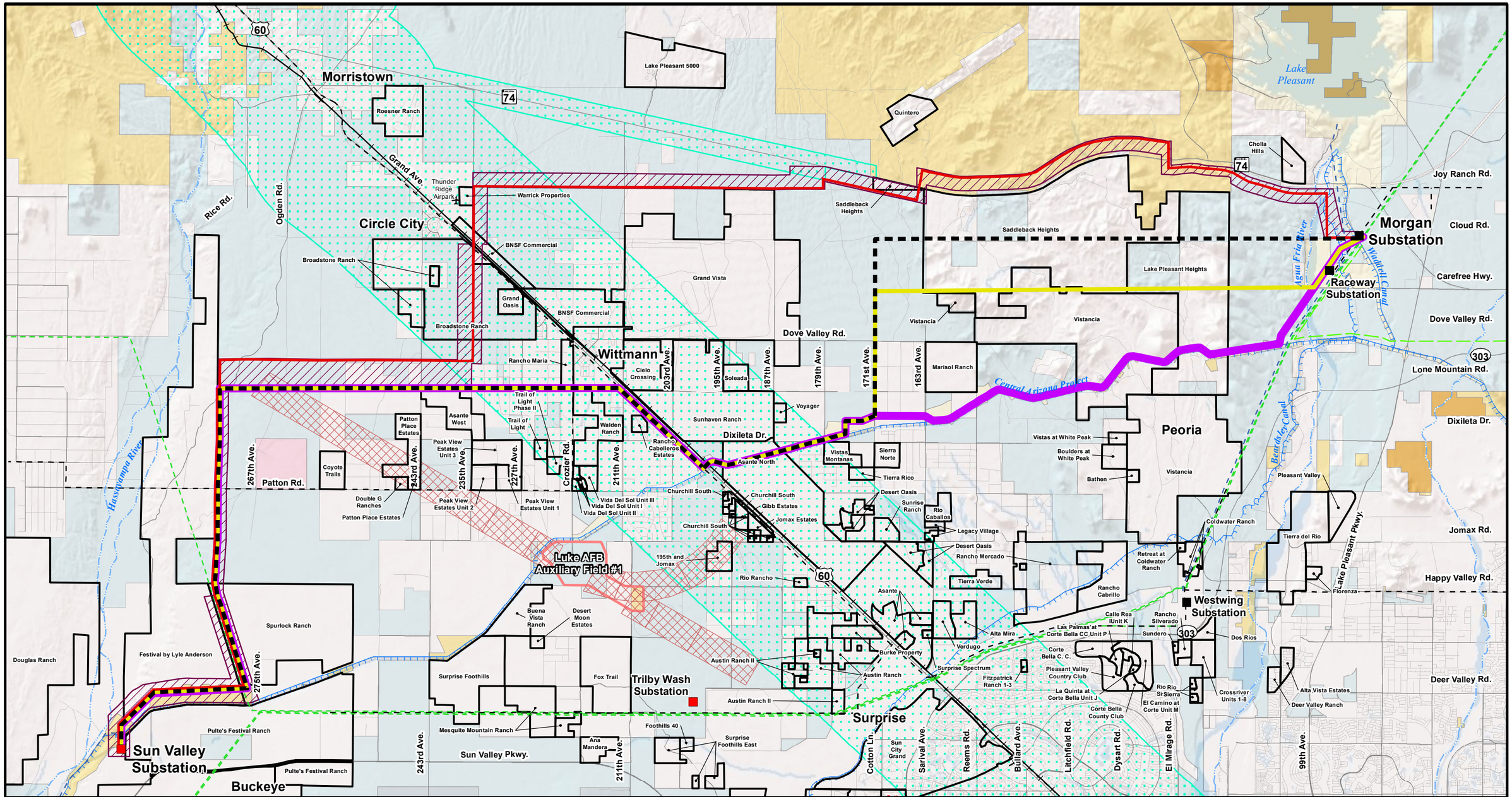


Figure 2.7-2
CAP Widths
Sun Valley to Morgan 500/230kV Transmission Line EIS Project



Legend

- Sun Valley to Morgan Proposed Action Right-of-Way
- LAFB Bypass Option A (along CAP)
- LAFB Bypass Option B (along Carefree Highway)
- LAFB Bypass Option C (along Cloud Road)
- ACC Certificated Route
- Existing High-Voltage Substation
- Approved High-Voltage Substation
- Existing 500kV Transmission Line
- Existing 230kV Transmission Line
- Existing 69kV Transmission Line
- Luke Air Force Base (AFB) Auxiliary Field #1
- Auxiliary Field #1 Accident Potential Zones
- Existing and Future Development Areas
- Maricopa County Scenic Corridor

Surface Land Management

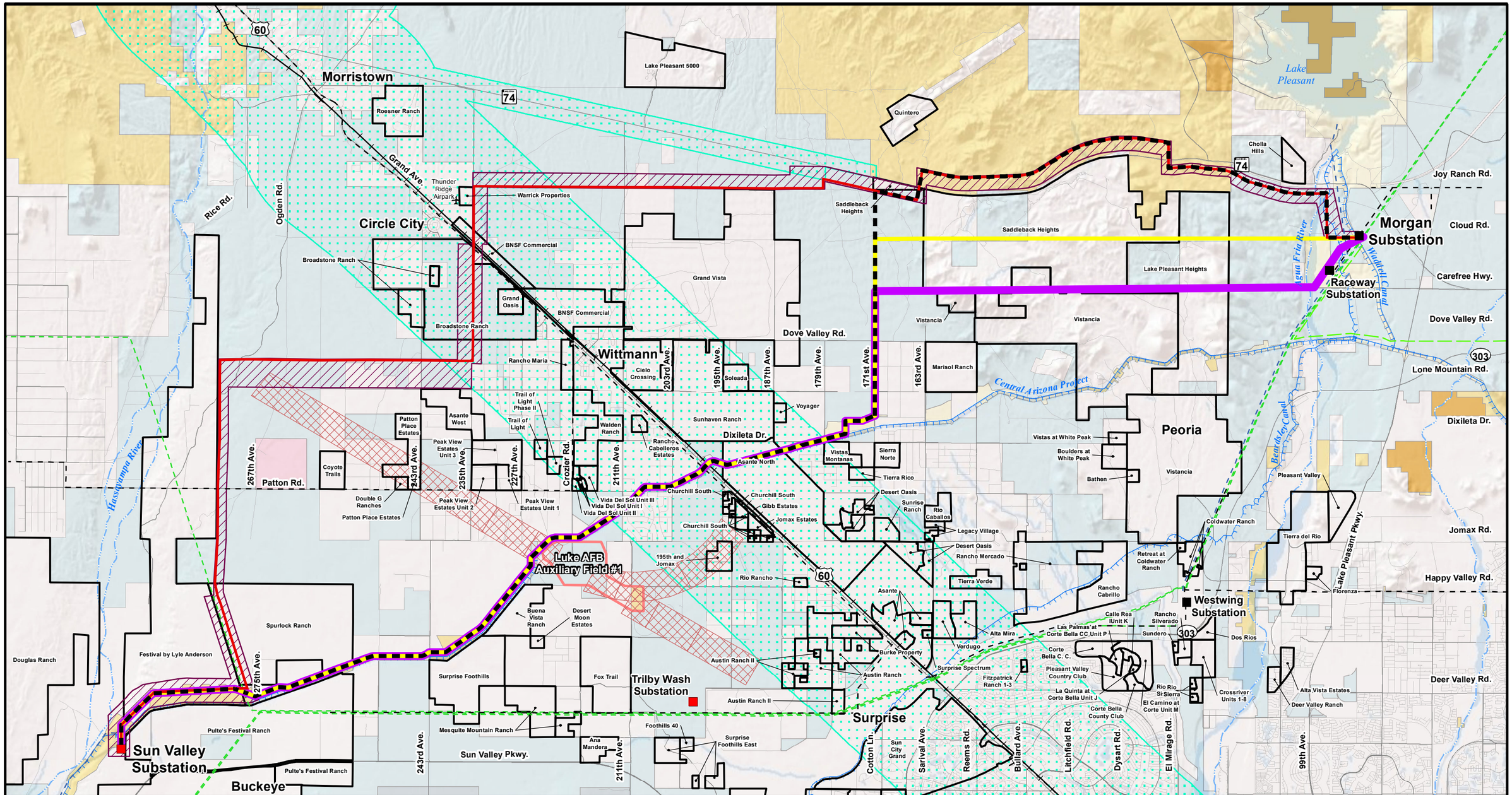
- BLM
- USBR
- County
- Military
- Local or State Parks
- State Trust Lands
- Private

Base Map: ESRI Shaded Relief accessed at ArcGISOnline.com

N

2 0 2 Miles

Figure 2.7-3
LAFB Auxiliary Field #1 Bypass Route, Options A, B, and C
Considered but Eliminated from Detailed Analysis
Sun Valley to Morgan 500/230kV Transmission Line EIS Project



Legend

- Sun Valley to Morgan Proposed Action Right-of-Way
- Vistancia Bypass Option A (along Cloud Road)
- Vistancia Bypass Option B (along Carefree Highway)
- Vistancia Bypass Option C (along ACC-Certified Route)
- ACC Certificated Route
- Existing High-Voltage Substation
- Approved High-Voltage Substation
- Existing 500kV Transmission Line
- Existing 230kV Transmission Line
- Existing 69kV Transmission Line
- Luke Air Force Base (AFB) Auxiliary Field #1
- Auxiliary Field #1 Accident Potential Zones
- Existing and Future Development Areas
- Maricopa County Scenic Corridor

Surface Land Management

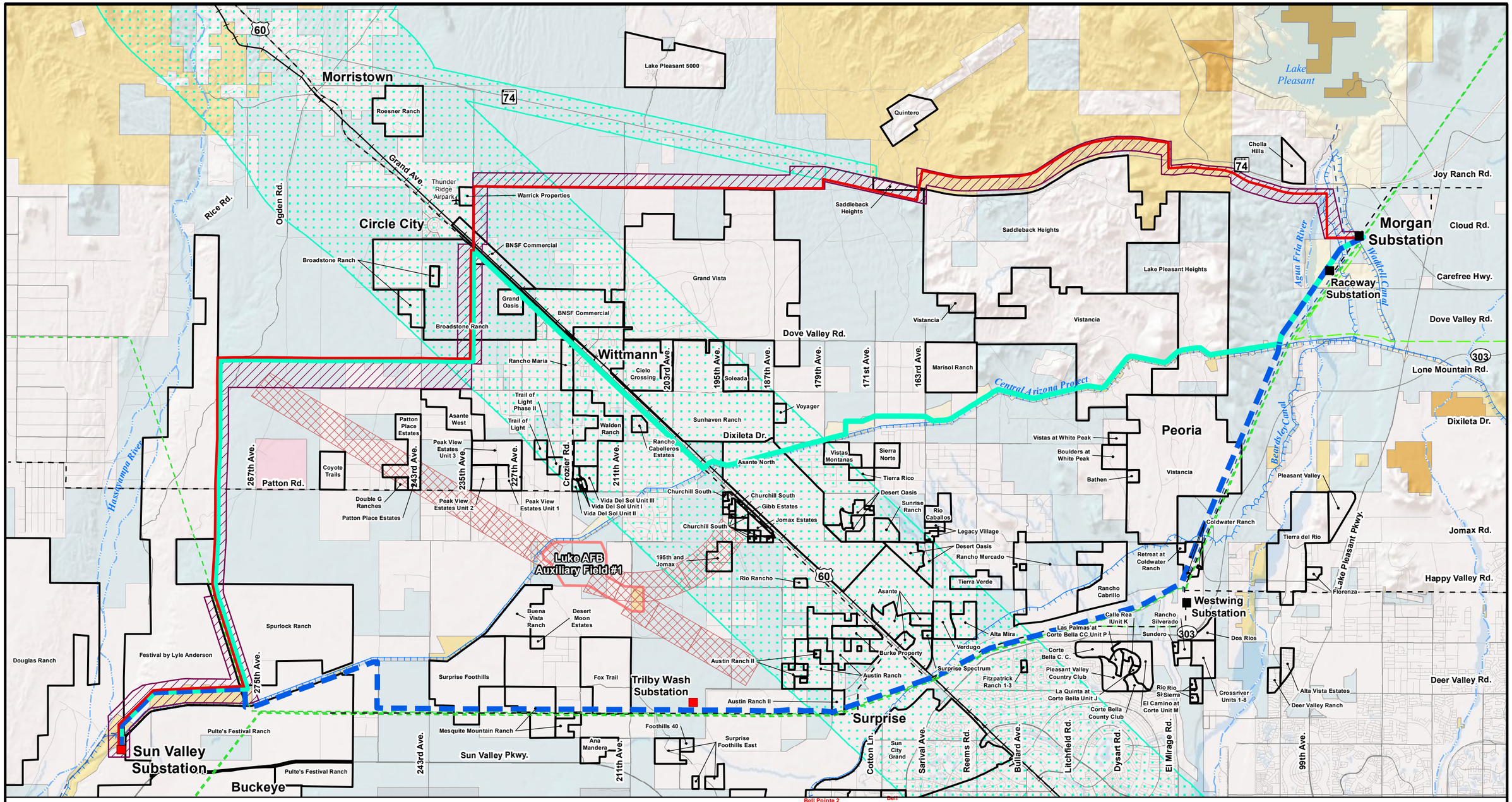
- BLM
- USBR
- County
- Military
- Local or State Parks
- State Trust Lands
- Private

Base Map: ESRI Shaded Relief accessed at ArcGISOnline.com

N

2 0 2 Miles

Figure 2.7-4
Vistancia Bypass Route, Options A, B, and C
Considered but Eliminated from Detailed Analysis
Sun Valley to Morgan 500/230kV Transmission Line EIS Project



Legend

- Sun Valley to Morgan Proposed Action Right-of-Way
- Westwing/Navajo Corridor Route
- CAP to Grand Avenue Route
- ACC Certificated Route
- Existing High-Voltage Substation
- Approved High-Voltage Substation
- Existing 500kV Transmission Line
- Existing 230kV Transmission Line
- Existing 69kV Transmission Line
- Luke Air Force Base (AFB) Auxiliary Field #1
- Auxiliary Field #1 Accident Potential Zones
- Existing and Future Development Areas
- Maricopa County Scenic Corridor

Surface Land Management

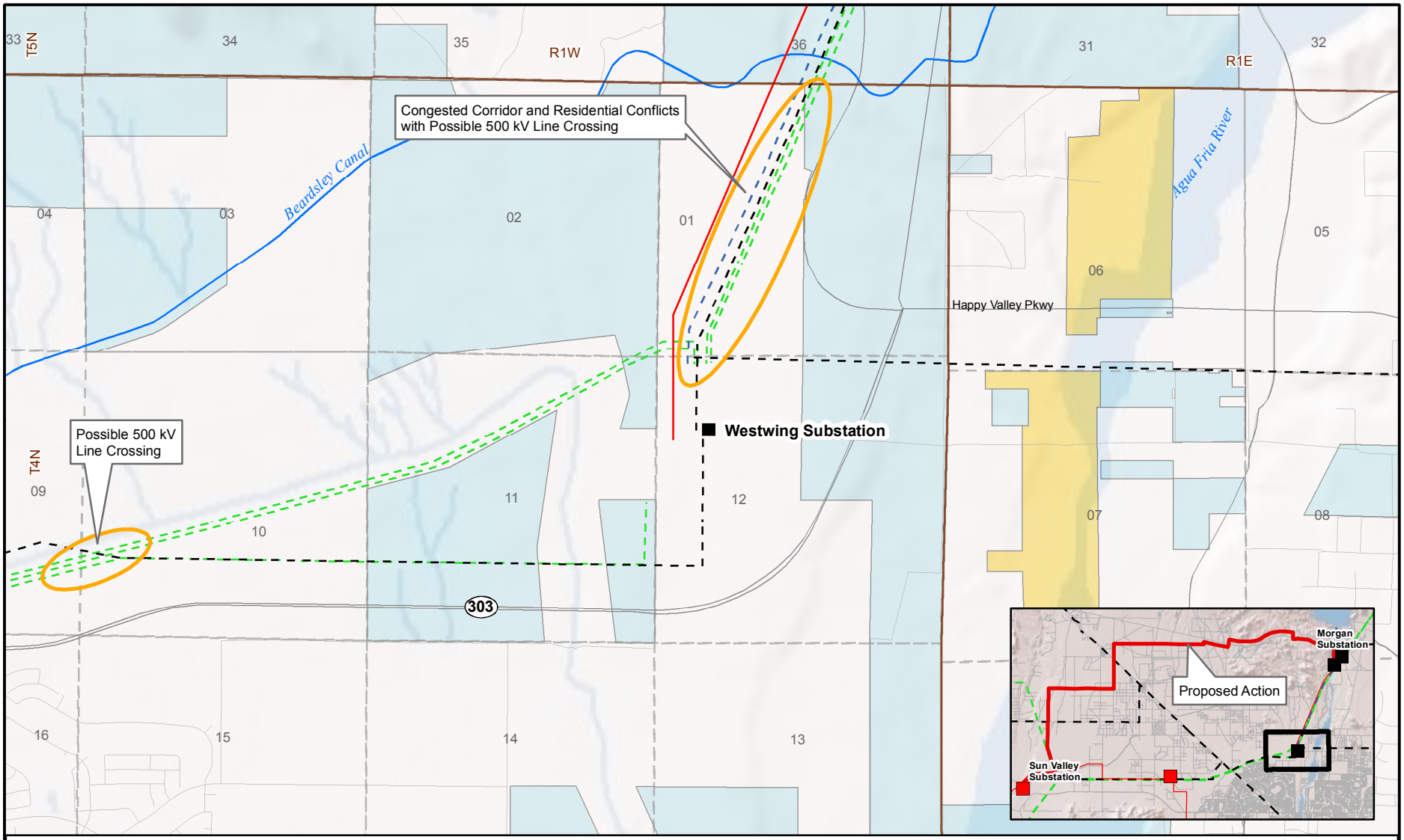
- BLM
- USBR
- County
- Military
- Local or State Parks
- State Trust Lands
- Private

Base Map: ESRI Shaded Relief accessed at ArcGISOnline.com

N

2 0 2 Miles

Figure 2.7-5
Westwing/Navajo Corridor Route and CAP to Grand Avenue Route
Considered but Eliminated from Detailed Analysis
Sun Valley to Morgan 500/230kV Transmission Line EIS Project



Base Map: ESRI Shaded Relief accessed at ArcGISOnline.com

Legend

- Existing High-Voltage Substation
- Approved High-Voltage Substation
- Approved 230kV Transmission Line
- Existing 500kV Transmission Line
- Existing 230kV Transmission Line
- Existing 69kV Transmission Line

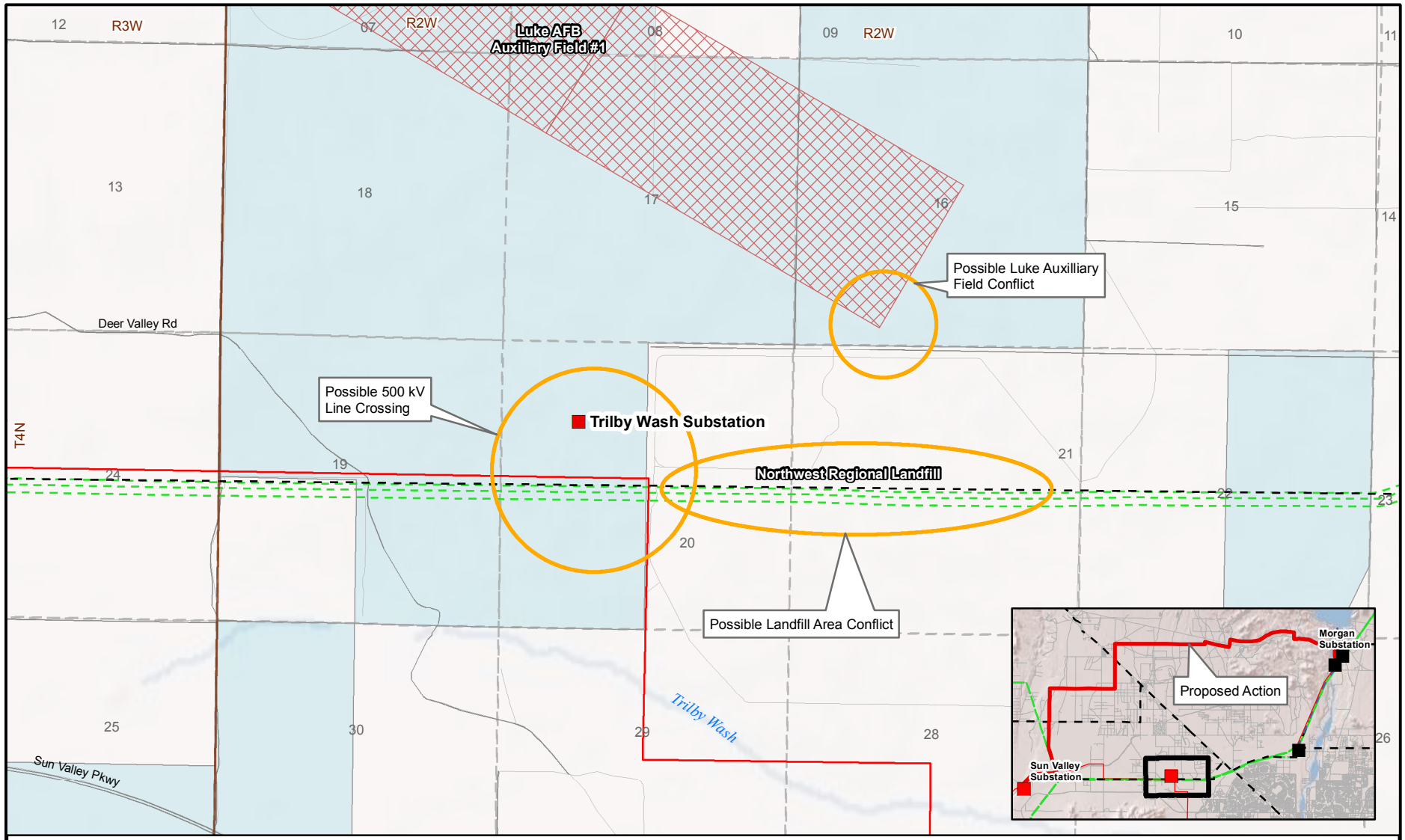
Surface Land Management

- BLM
- State Trust Lands
- Private

N

0.5 0 0.5 Miles

Figure 2.7-6
Westwing Area Crossings and Constraints
Sun Valley to Morgan 500/230kV Transmission Line EIS Project



Base Map: ESRI Shaded Relief accessed at ArcGISOnline.com

Legend

- Existing High-Voltage Substation
- Approved High-Voltage Substation
- Approved 230kV Transmission Line
- Existing 500kV Transmission Line
- Existing 230kV Transmission Line
- Existing 69kV Transmission Line
- Auxilliary Field # 1 Accident Prevention Zone

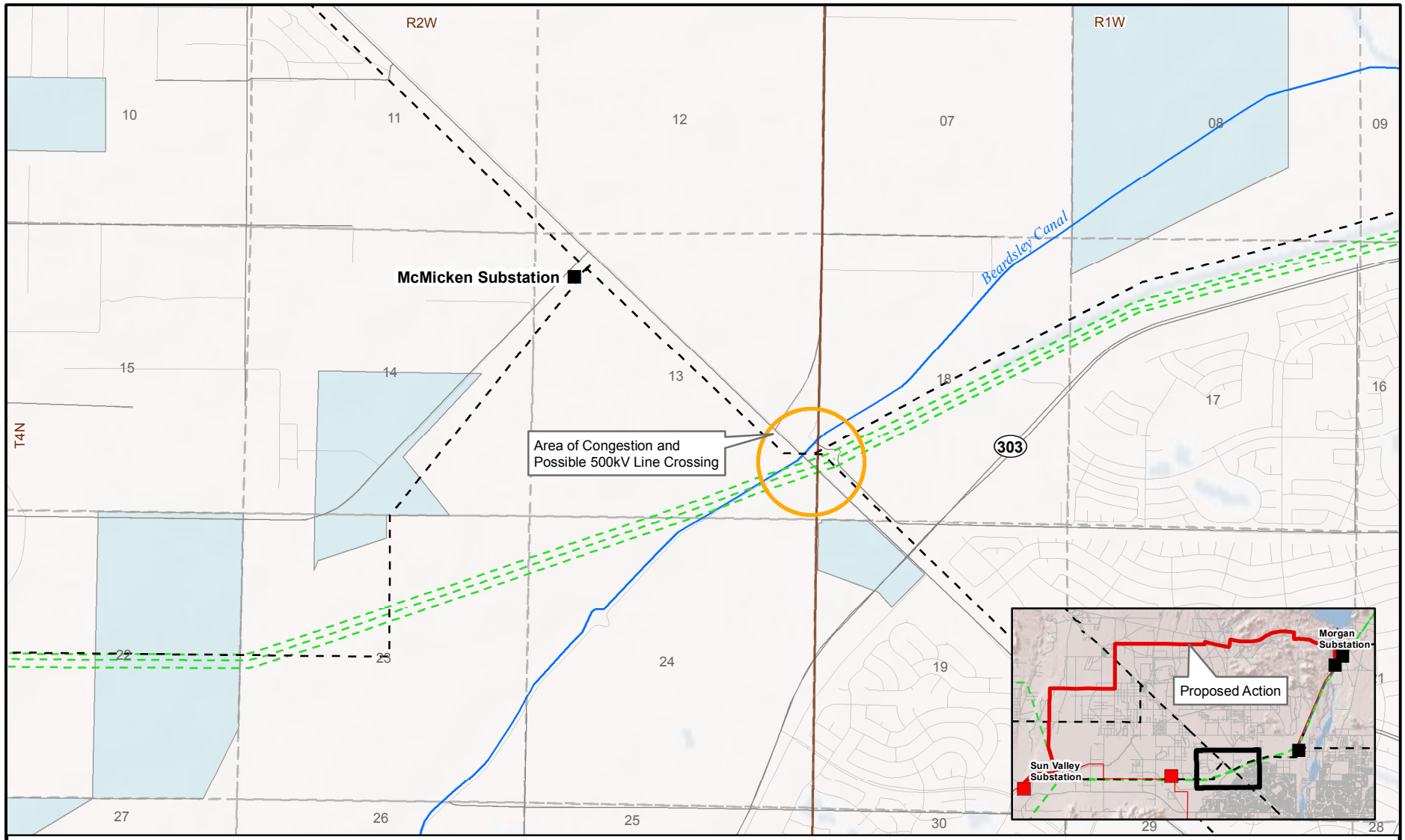
Surface Land Management

- State Trust Lands
- Private

N

0.5 0 0.5 Miles

Figure 2.7-7
Trilby Wash Area Crossings
and Constraints
Sun Valley to Morgan 500/230kV
Transmission Line EIS Project



Base Map: ESRI Shaded Relief accessed at ArcGISOnline.com

Legend

- Existing High-Voltage Substation
- Approved High-Voltage Substation
- Approved 230kV Transmission Line
- Existing 500kV Transmission Line
- Existing 230kV Transmission Line
- Existing 69kV Transmission Line

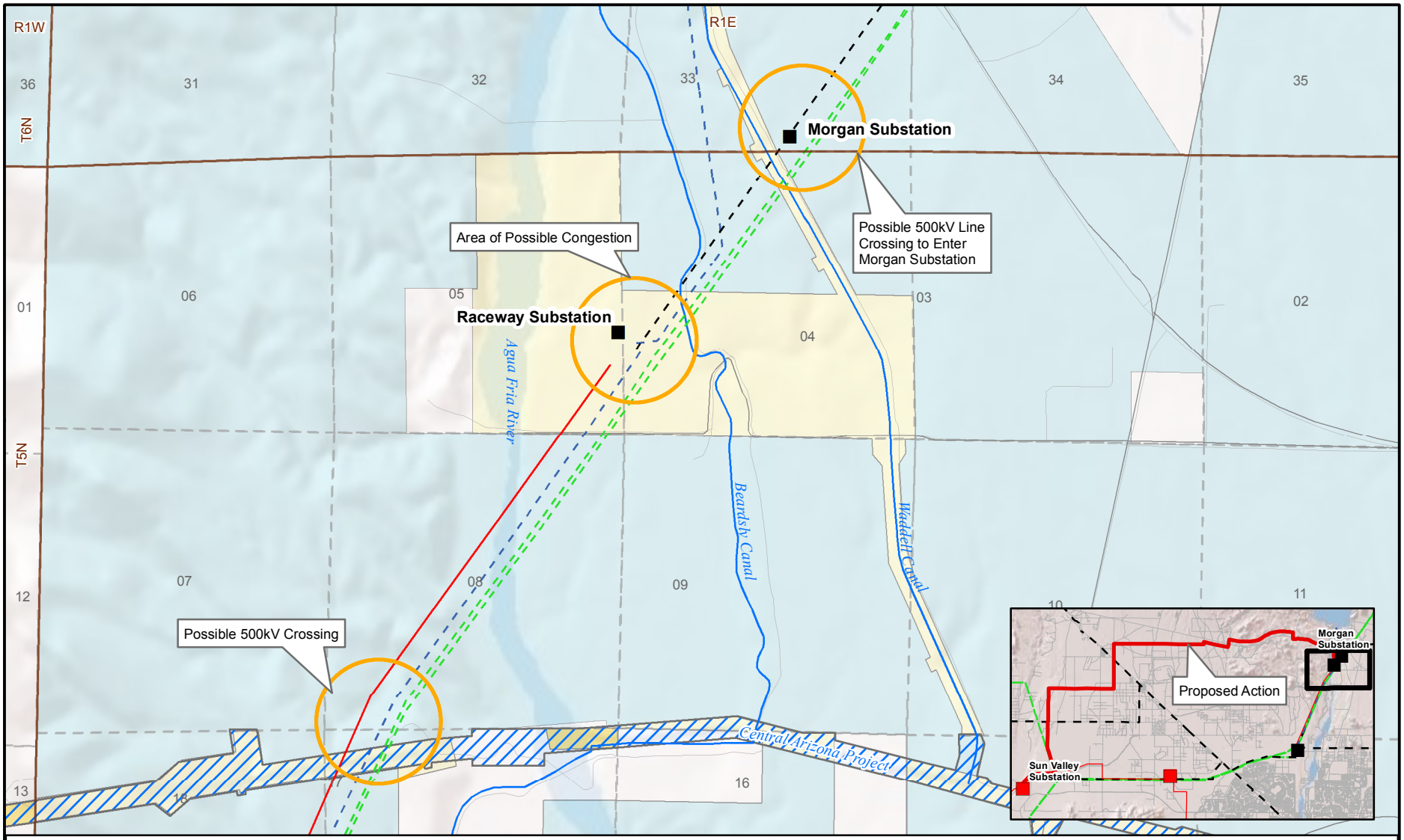
Surface Land Management

- State Trust Lands
- Private

N

0.5 0 0.5 Miles

Figure 2.7-8
McMicken Area Crossings
and Constraints
Sun Valley to Morgan 500/230kV
Transmission Line EIS Project



Base Map: ESRI Shaded Relief accessed at ArcGISOnline.com

Legend

- Existing High-Voltage Substation
- Approved High-Voltage Substation
- Approved 230kV Transmission Line
- Existing 500kV Transmission Line
- Existing 230kV Transmission Line
- Existing 69kV Transmission Line
- CAP

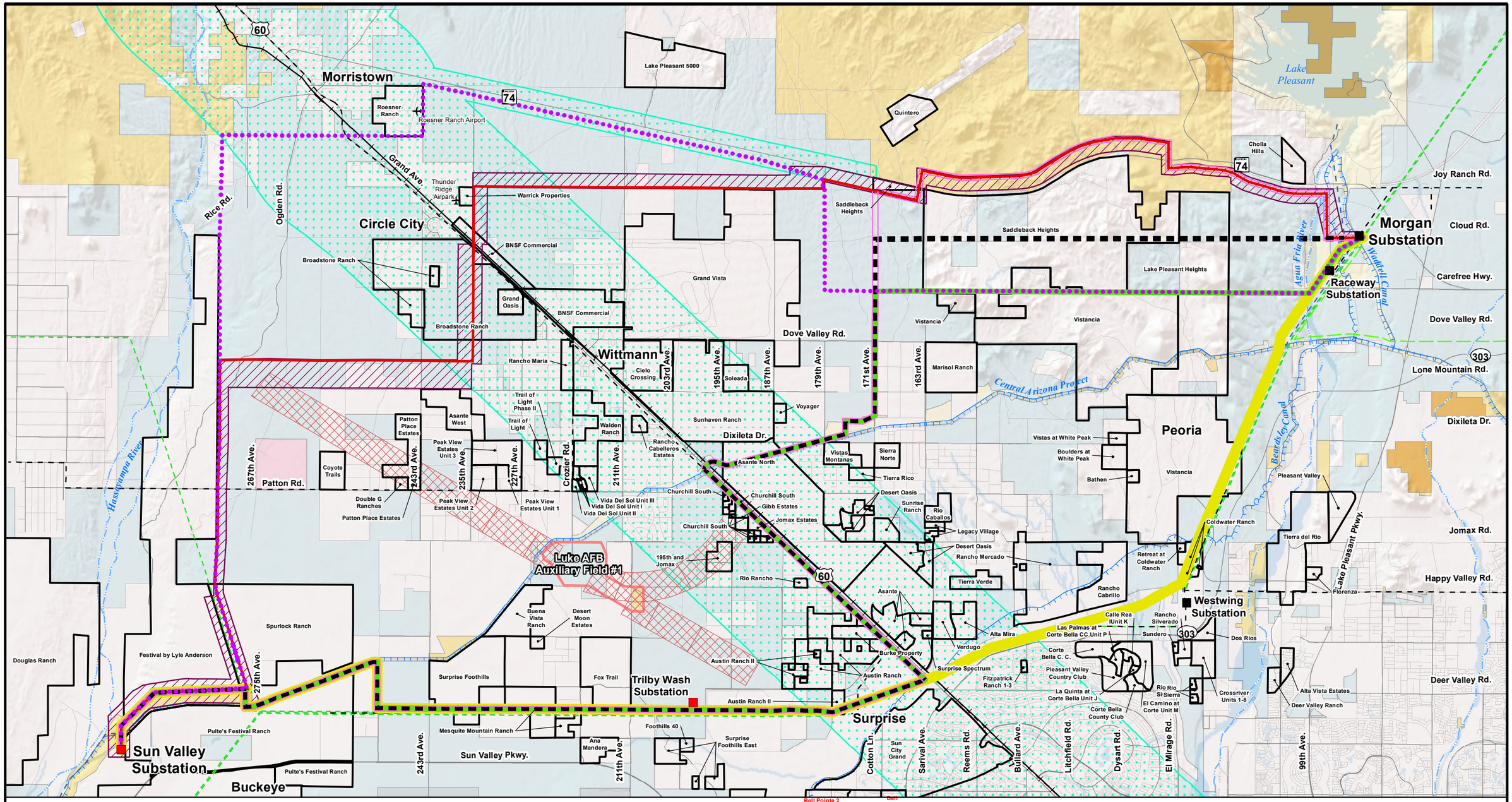
Surface Land Management

- BLM
- USBR
- State Trust Lands
- Private

N

0.5 0 0.5 Miles

Figure 2.7-9
Morgan Area Crossings and Constraints
Sun Valley to Morgan 500/230kV Transmission Line EIS Project



Legend

- Sun Valley to Morgan Proposed Action Right-of-Way
- 230kV Separation Option A
- 230kV Separation Option B
- 230kV Separation Option C
- Westwing/Grand Avenue-Navajo 500kV Transmission Line
- Wittmann/Circle City Bypass
- Sun Valley to Morgan Proposed Action Right-of-Way
- ACC Certificated Route
- Existing High-Voltage Substation
- Approved High-Voltage Substation
- Existing 500kV Transmission Line
- Existing 230kV Transmission Line
- Existing 69kV Transmission Line
- Luke Air Force Base (AFB) Auxiliary Field #1
- Auxiliary Field #1 Accident Potential Zones
- Existing and Future Development Areas
- Maricopa County Scenic Corridor

Surface Land Management

- BLM
- USBR
- County
- Military
- Local or State Parks
- State Trust Lands
- Private

Base Map: ESRI Shaded Relief accessed at ArcGISOnline.com

N

2 0 2 Miles

Figure 2.7-10
Westwing/Grand Avenue-Navajo 500/230kV Separation Route, Options A, B, and C, and Wittmann/Cicle City Bypass Route Considered but Eliminated from Detailed Analysis
Sun Valley to Morgan 500/230kV Transmission Line EIS Project

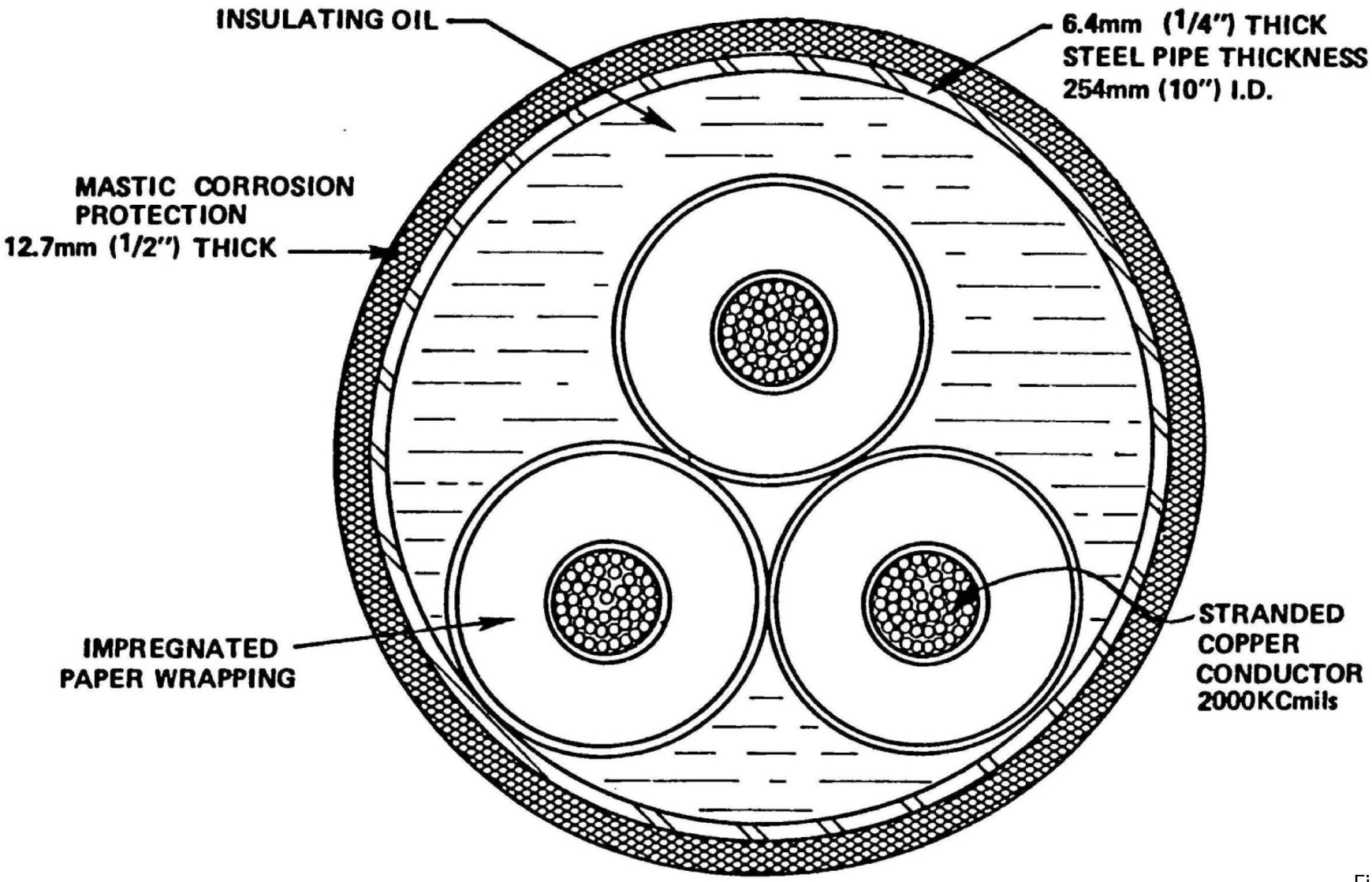


Figure 2.7-11
HPFF Cable Cross Section
Sun Valley to Morgan 500/230kV Transmission Line EIS

Source: "Technology and Environmental Assessment Guide on Underground HV Power Transmission (Year 2000 Update)" report prepared by RW Beck for the CPUC as part of the Tri-Valley Capacity Increase Project Draft EIR, Appendix 2 (Application No. 99-11-025).

Figure 2.7-12 Typical XLPE Vault Installation

CONFIDENTIAL: For internal discussion purposes only. Not for public release.

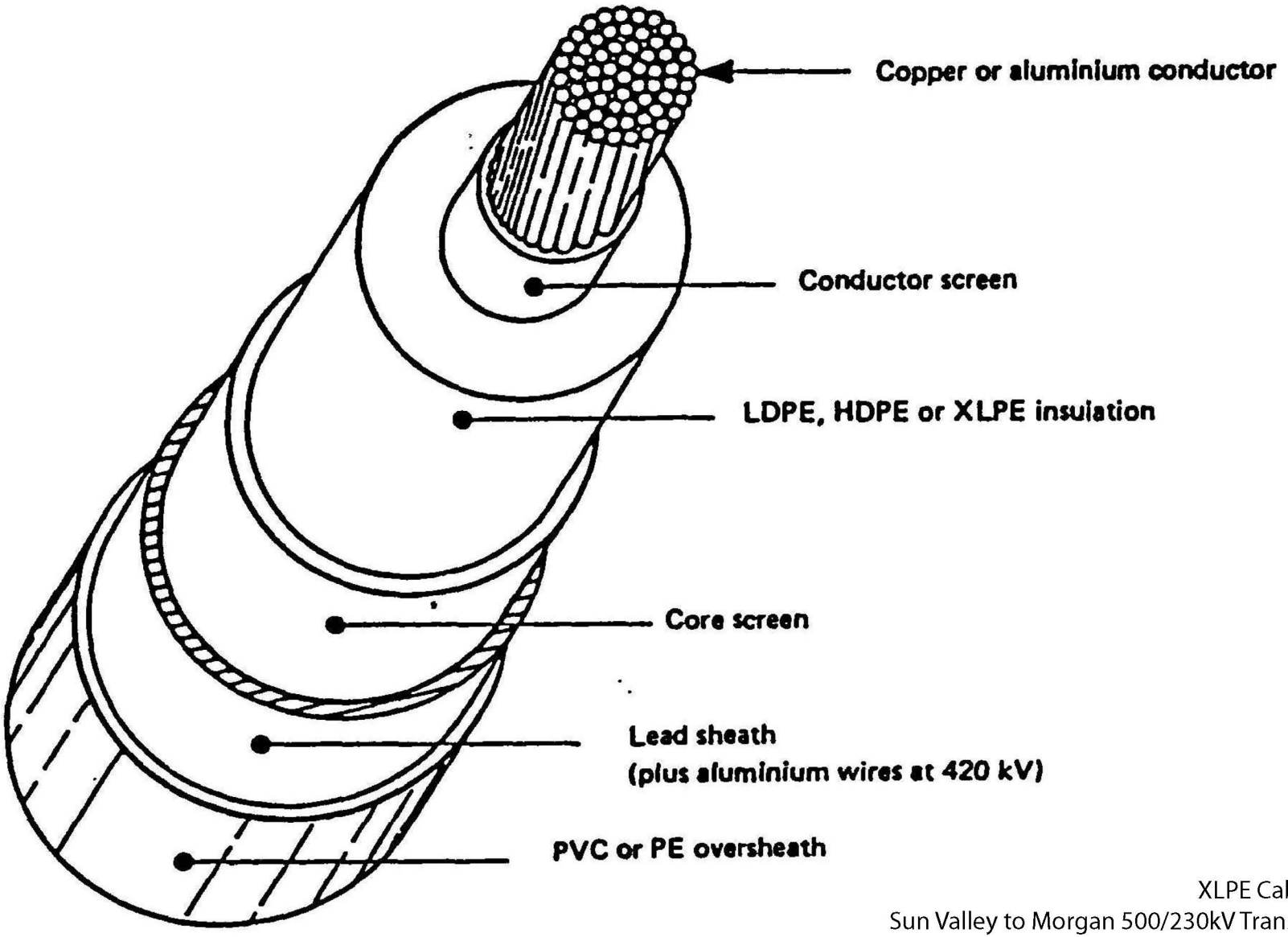


Figure 2.7-13
XLPE Cable Cross Section
Sun Valley to Morgan 500/230kV Transmission Line EIS

Source: "Technology and Environmental Assessment Guide on Underground HV Power Transmission (Year 2000 Update)" report prepared by RW Beck for the CPUC as part of the Tri-Valley Capacity Increase Project Draft EIR, Appendix 2 (Application No. 99-11-025).

Figure 2.7-14 Typical Overhead to Underground Transition Station

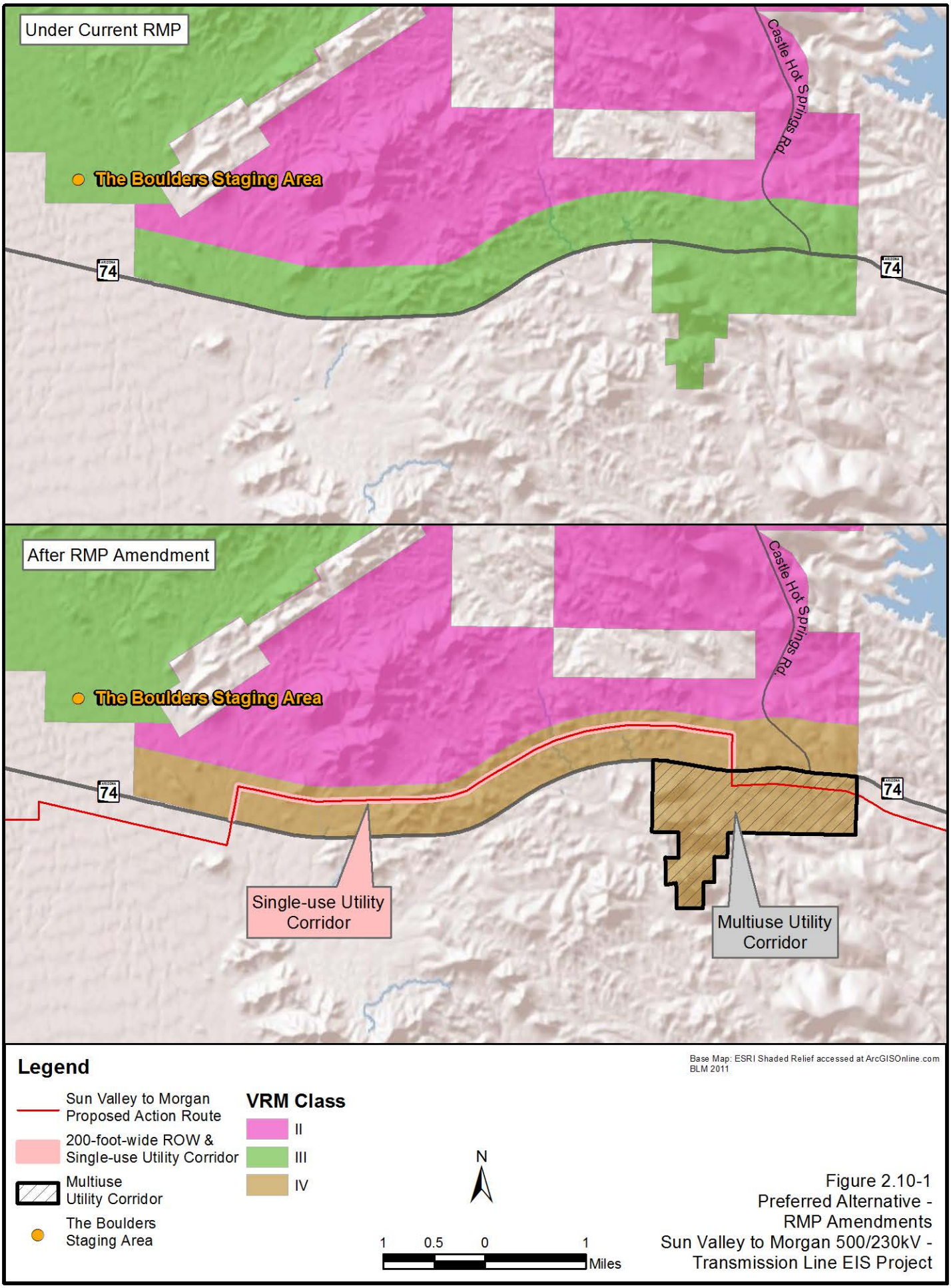


Figure 2.10-1
Preferred Alternative - RMP Amendments
Sun Valley to Morgan 500/230kV - Transmission Line EIS Project