Chapter 2
Description of the Proposed Project and Alternatives

This chapter describes the Proposed Project and alternatives; proposed construction, operation, maintenance, and decommissioning activities; the Environmental Protection Measures (EPMs); and standard construction, operation, and maintenance practices that would be implemented as part of the Project. It also identifies the Environmentally Preferred Alternative.

At this time, the exact locations and quantities of Project components (e.g., access roads, staging areas, pulling sites) are unknown and, in some cases, quantities of Project components are conservatively estimated (see Appendix E). To provide flexibility in siting Project components, particularly access roads that may extend outside of the proposed easements, a one-mile buffer was added on the west side of the Proposed Project and alternative corridors. The buffer was extended up to I-5 on the east side of the Proposed Project and alternative corridors, except where the Project would be located east of I-5 near the Dos Amigos Substation. The area within this buffer is referred to as the *study area*, unless otherwise defined in Chapter 3 for a specific resource. This EIS/EIR uses the term *Project area* to collectively describe the area within which Project components could be located. A *corridor* is a linear area within which the easements (also known as rights-of-way) would be located; proposed corridors are part of the Project area.

2.1 Proposed Project

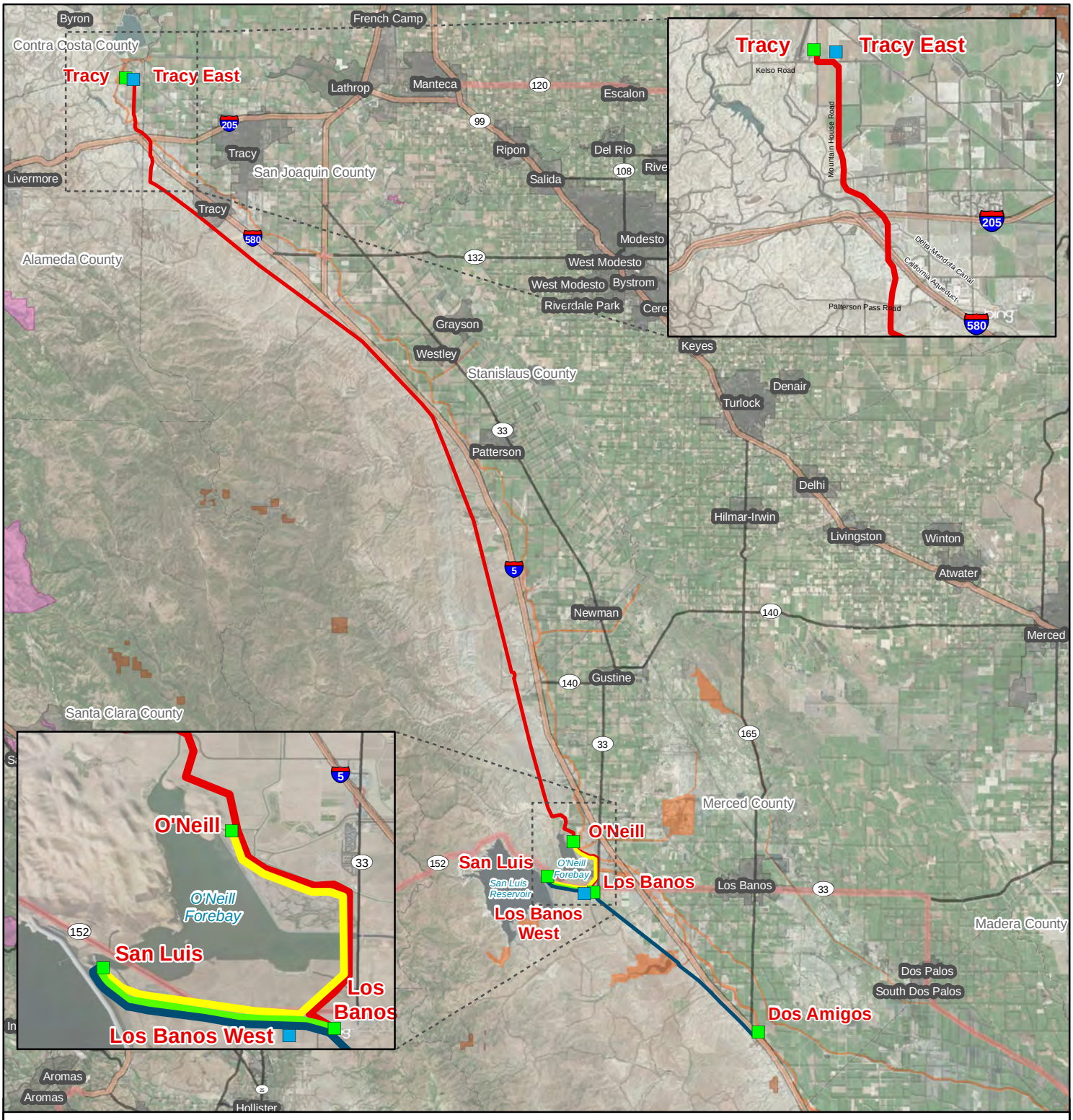
Western proposes to construct, own, operate, and maintain about 95 miles of new transmission lines within easements ranging from 125 to 250 feet wide through Alameda, San Joaquin, Stanislaus, and Merced Counties along the foothills of the Diablo Range in the western San Joaquin Valley. Western also would upgrade or expand its existing substations, make the necessary arrangements to upgrade or expand existing PG&E substations, or construct new substations to accommodate the interconnections of these new transmission lines. An overview of the Proposed Project is illustrated in Figure 2-1.

2.1.1 Overview

The Proposed Project consists of:

- **A 500-kV transmission line.** A single-circuit 500-kV transmission line, about 65 miles long, terminating at the existing, expanded, or new substations in the Tracy and Los Banos areas.
- **230-kV transmission lines.** A single-circuit 230-kV transmission line (called the "tie-line"), about 3 miles long, connecting the San Luis Substation and the existing Los Banos Substation or new Los Banos West Substation; and a single-circuit 230-kV transmission line, about 20 miles long, connecting the San Luis and Dos Amigos Substations or a single-circuit 230-kV transmission line, about 18 miles long, connecting the new Los Banos West and existing Dos Amigos Substations.
- **A 70-kV transmission line.** A single-circuit 70-kV transmission line, about 7 miles long connecting the San Luis and O'Neill Substations.

Much of the Proposed Project would be located adjacent to existing high-voltage transmission line easements along the foothills west of Interstate 5 (I-5).



Existing Substations
Proposed New Substations
Streets
City Boundary
Counties

Land Ownership
Bureau of Land Management
Local Government
Bureau of Reclamation

Proposed Project
500-kV Corridor
230-kV Corridor (tie-line)
230-kV Corridor
70-kV Corridor

0 6 12 Miles

Figure 2-1

Proposed Project Overview

Western is proposing to construct two new 500-kV substations: Tracy East Substation and Los Banos West Substation. The Tracy East Substation would be adjacent to and east of the existing Tracy Substation with a footprint of up to 50 acres (see Figure 2-6a). The Los Banos West Substation would be adjacent to and west of the existing Los Banos Substation with a footprint of up to 50 acres (see Figure 2-6c). Western may also interconnect the existing Western 500-kV Los Banos-Gates No. 3 transmission line just south of PG&E's existing Los Banos Substation into this new Los Banos West Substation. The existing Tracy, Los Banos, San Luis, and/or Dos Amigos Substations may be expanded to add new or modify existing 230-kV terminal bays. Western would also construct a 230/70-kV transformer bank and associated facilities at the San Luis Substation.

The Proposed Project also would include ancillary facilities, such as communication facilities, improvements to existing access roads, new permanent access roads, and temporary access roads to facilitate construction activities. Western would acquire the necessary easements and fee land for the Proposed Project.

2.1.1.1 500-kV Transmission Line

As shown in Figure 2-1, the proposed single-circuit 500-kV transmission line corridor would begin at the new Tracy East Substation, located at the intersection of Mountain House Road and Kelso Road, about 6 miles northwest of the City of Tracy in Alameda County. From the substation, the proposed corridor heads east along Kelso Road and turns south, adjacent to an existing 230-kV transmission line through agricultural fields. The proposed corridor then continues south and crosses the Delta-Mendota Canal (Canal) and a 69-kV transmission line. Then, it turns southeast to cross these features again and continues along the northeastern side of the canal and into San Joaquin County, crossing Interstate 205 (I-205) and a 230-kV transmission line. The proposed corridor then turns south, and continues adjacent to two existing 230-kV and 500-kV transmission lines to an area just east of PG&E's Tesla Substation, south of Patterson Pass Road.

Next, the proposed corridor turns south and runs adjacent to the east side of the existing transmission line corridor, which contains up to five high-voltage transmission lines. Along this section, the existing easements adjacent to the proposed corridor contain several 500-, 230-, and 115-kV transmission lines in various configurations. The proposed corridor would run adjacent to these transmission lines, with minor deviations to avoid existing infrastructure, south to the O'Neill Forebay.

Just north of the O'Neill Forebay, the proposed corridor would turn southeast, around the east side of the O'Neill Forebay and would terminate into the existing Los Banos Substation or the new Los Banos West Substation.

2.1.1.2 230-kV Transmission Lines

There are two new proposed single-circuit 230-kV transmission line corridors. The first 230-kV transmission line corridor would be between the existing San Luis Substation and new Los Banos West Substation; this transmission line corridor is on the south side of Highway 152 and is referred to as a "tie-line." The second proposed new 230-kV transmission line would connect the San Luis and Dos Amigos Substations or the new Los Banos West Substation and Dos Amigos Substation. This corridor heads southeast from the Los Banos area adjacent to and east of the existing PG&E transmission line. Just south of the Los Banos Reservoir, it crosses to the west of the existing PG&E transmission line corridor and continues southeast for about 7 miles until it crosses I-5 to the Dos Amigos Substation. These proposed corridors are shown in Figure 2-1.

2.1.1.3 70-kV Transmission Line

The proposed single-circuit 70-kV transmission line connects the San Luis and O'Neill Substations around the east side of the O'Neill Forebay. This component of the Proposed Project is located within the proposed 230-kV and 500-kV corridors described above (see Figure 2-1).

2.1.1.4 Operational Voltage Options

As described in Section 1.2, the operational voltage needed for the Project is dependent on the participation of ~~an eligible transmission customer~~DATC. The Proposed Project described herein assumes participation by ~~the customer~~DATC. If ~~the customer~~DATC declines to participate, one of the following operational voltage options may be selected by Western and the Authority in their decision-making processes pursuant to NEPA and CEQA.

500-kV Transmission Line operated at 230-kV

This voltage option would consist of a 500-kV transmission line constructed between the Tracy and ~~Los Banos~~ San Luis Substations. However, it would be operated at 230-kV. The proposed Tracy East and Los Banos West Substations would not be constructed. The 230-kV transmission line between the San Luis and Dos Amigos Substations, as well as the 70-kV transmission line between the San Luis and O'Neill Substations, are the same as the Proposed Project.

230-kV Transmission Line

This voltage option would consist of a 230-kV line constructed between the Tracy and San Luis Substations. The proposed Tracy East and Los Banos West Substations would not be constructed. The 230-kV transmission line between the San Luis and Dos Amigos Substations, as well as the 70-kV transmission line between the San Luis and O'Neill Substations, are the same as the Proposed Project.

2.1.2 Project Components

2.1.2.1 Easements

Western does not have existing transmission line easements within the Project area for the Proposed Project, and therefore, would need to acquire easements for the entire Project. Western would locate lines adjacent to existing easements or transmission lines wherever feasible. Generally, easements would be 125 to 175 feet wide for a 230-kV transmission line and 200 to 250 feet wide for a 500-kV transmission line. The actual width and location of the proposed easement within the corridor may vary depending on engineering considerations, as well as constraints identified during environmental surveys.

2.1.2.2 Access Roads

Improvements to existing access roads, new permanent access roads, and temporary access roads would be needed for construction and maintenance of the transmission line. Typically, upgrading existing roads and constructing temporary and permanent new access roads requires a construction width of 14 feet along straightaways and 16 to 20 feet around corners to facilitate safe movement of equipment and vehicles. However, all temporary roads will be restored to pre-existing conditions when they are no longer needed, and all upgraded existing roads and new permanent roads will be restored to a width of 12 feet.

Although specific locations have not been determined, new access roads for the Project would be located to minimize environmental impacts and to accommodate engineering constraints. Access roads would be occasionally graded for maintenance purposes and culverts would be added, as needed. Appendix E quantifies the estimated area of disturbance for proposed new and existing access roads

2.1.2.3 Structures

Tubular steel monopoles or lattice steel structures would be used to support the 500-kV and 230-kV lines of the Proposed Project, and smaller wood or steel monopoles would be used for the 70-kV line. Typical dimensions of the proposed structures are shown in Figures 2-2 through 2-4 and summarized in Table 2-1.

Table 2-1. Typical Structure Dimensions

Structure Type	Height (feet)	Structures Per Mile
500-kV single-circuit lattice	100-170	4 to 5
500-kV single-circuit steel pole	140-170	4 to 5
230-kV single- or double-circuit lattice	100-150	4 to 5
230-kV single- or double-circuit steel pole	125-140	4 to 5
70-kV wood or steel pole	50-70	10 to 15

Ancillary Facilities

Communication facilities, including fiber optic overhead ground wires would be installed on the transmission line structures for control and protection. Construction, expansion, and maintenance of these facilities would occur within the corridors.

2.1.3 Construction

2.1.3.1 Construction Schedule

Construction would commence after securing all required permits and land rights. Multiple crews would work simultaneously on different Project components. Table 2-2 presents Western's proposed schedule for constructing the SLTP.

Table 2-2. SLTP Proposed Construction Schedule

Construction Phases	Estimated Days	Estimated Schedule
Engineering and Design	430	Begin in Fall 2017
Construction	525	Begin in Summer 2018
Final Testing/Operation	135	2021

Construction generally would take place between 7:00 a.m. and 7:00 p.m., 6 days per week, except for those areas where local ordinances and traffic considerations dictate otherwise, in which case working hours would be consistent with local requirements.

2.1.3.2 Ground Disturbance

Ground disturbance would occur from grading construction staging areas, grading and drilling holes for new structure foundations, constructing and improving roads for vehicle and equipment access, establishing pull sites for conductor installation, as well as expanding existing and/or construction of new substations. The typical ground disturbance area for each of these activities is shown in Table 2-3. Proposed construction methods are described in the following sections.

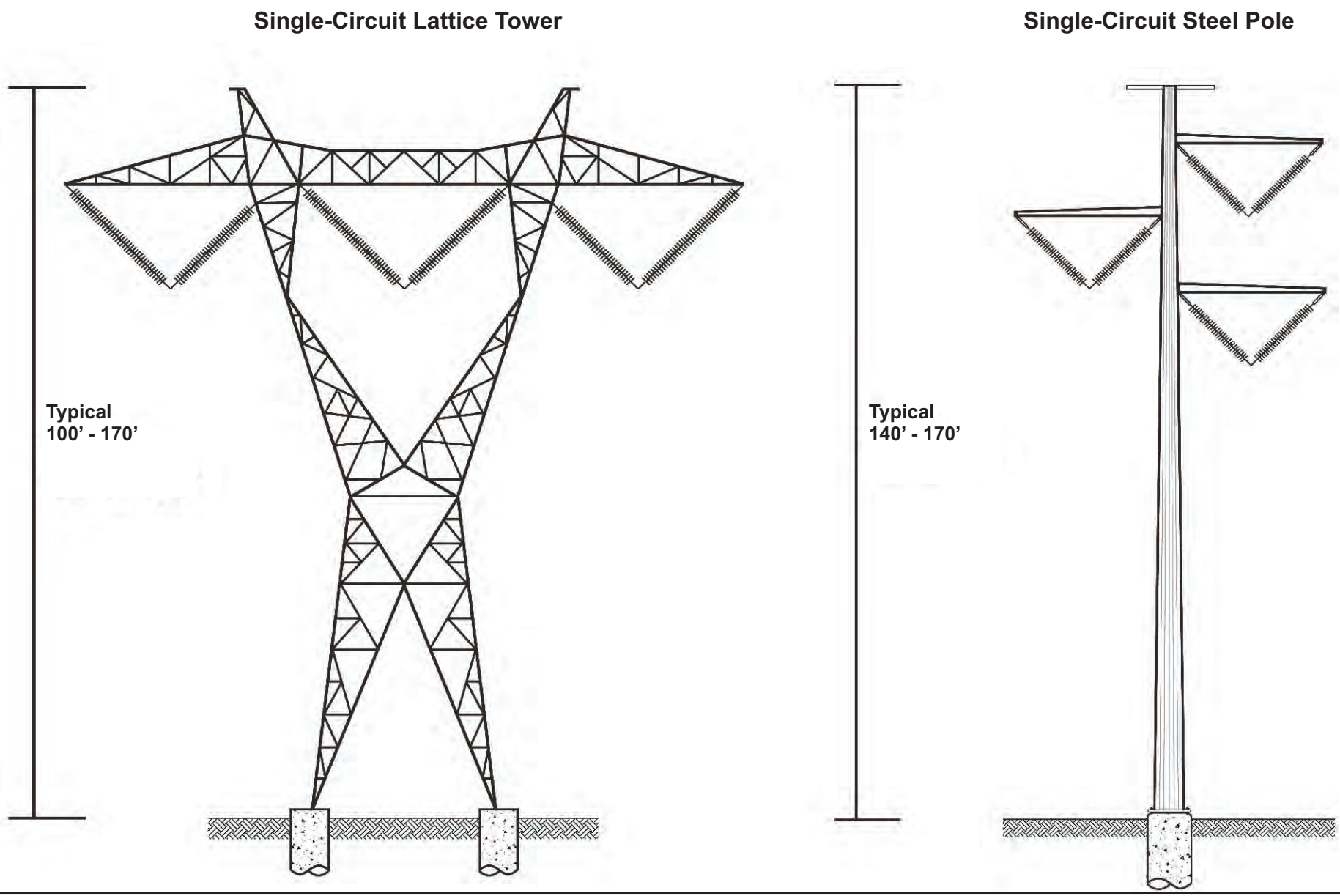


Figure 2-2

SLTP Representative 500-kV Structure Types

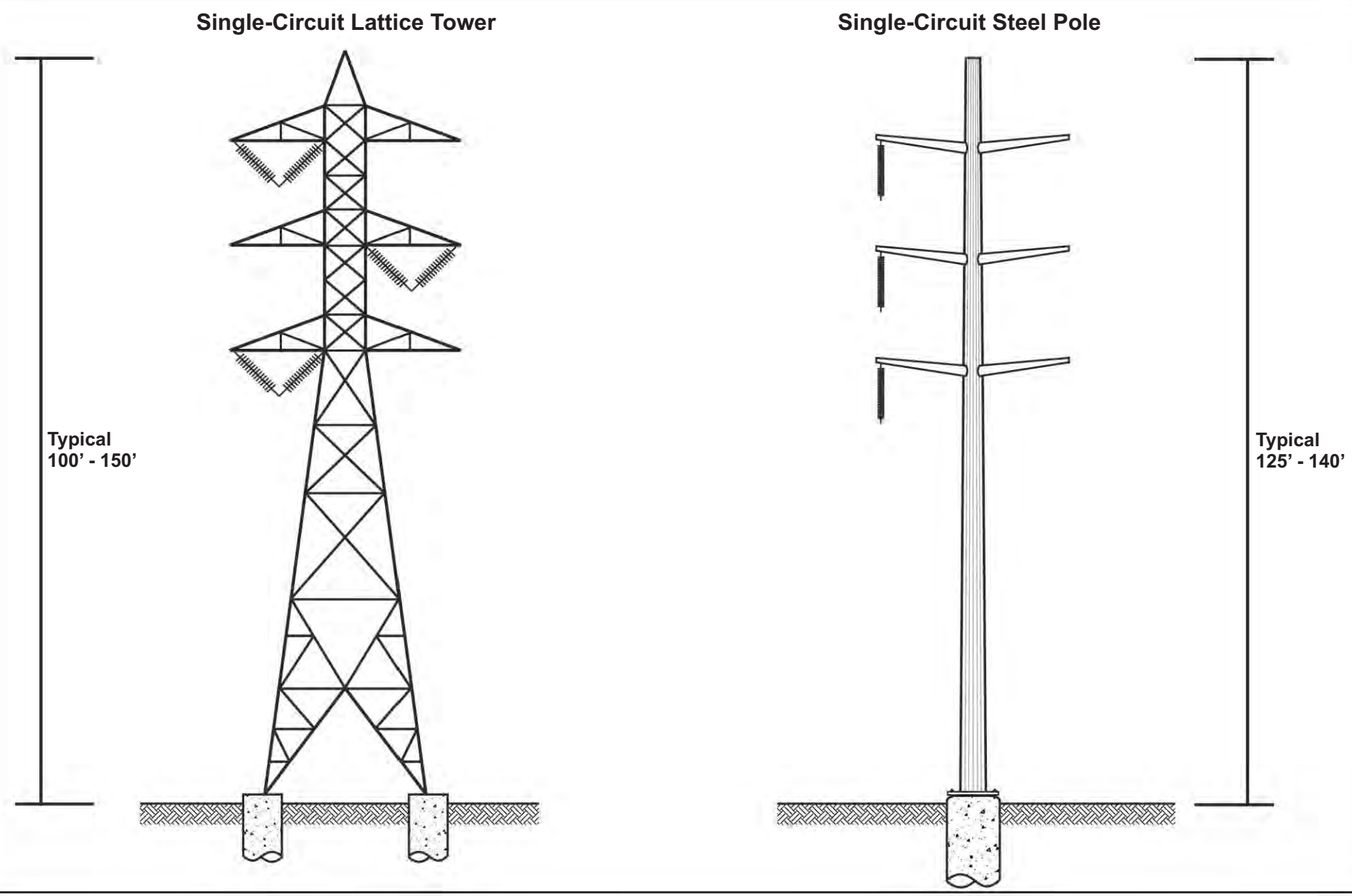


Figure 2-3

SLTP Representative 230-kV Structure Types

Single-Circuit Steel or Wood Pole

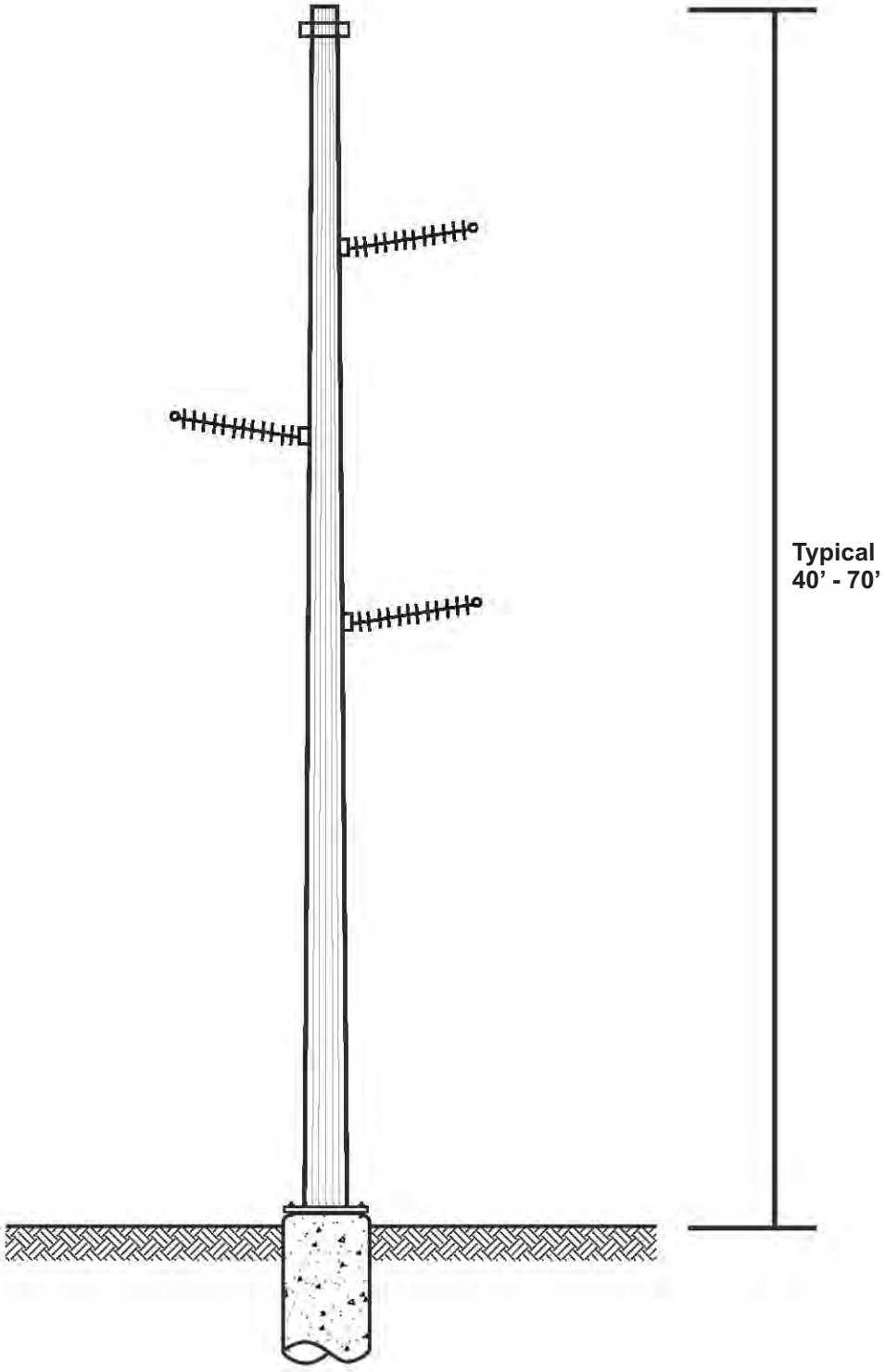


Figure 2-4

SLTP Representative 70-kV Structure Types

Table 2-3. Typical Ground Disturbance for Construction Activities[1]

Activity		Temporary Disturbance	Permanent Disturbance
Staging area		5 acres every 15 miles	0 acres
Structure footing	500-kV lattice	up to 0.9 acres	up to 0.1 acres
	500-kV steel pole	up to 0.9 acres	up to 0.1 acres
	230-kV lattice	up to 0.6 acres	up to 0.1 acres
	230-kV steel pole	up to 0.6 acres	up to 0.1 acres
	70-kV wood or steel pole	up to 0.1115 acres	up to 0.0001 acres
Foundation excavation	500-kV and 230-kV lattice and steel poles	40 feet deep,12 feet in diameter	0 acres[2]
	70-kV wood or steel pole	8 to 10 feet deep, 4 feet in diameter	0 acres[2]
Conductor pull site		0.4 acres	0 acres
Access road construction/improvement		Up to 30 feet wide	12 feet wide
Tracy, Los Banos, San Luis, and Dos Amigos Substation expansion		up to 0.1 acres within existing substation	up to 0.1 acres within existing substation
Tracy East Substation		0 acres	up to 50 acres
Los Banos West Substation		0 acres	up to 50 acres

1 - These dimensions represent worst-case and are used in the impact analysis of Chapter 4, but could be reduced during final engineering design or consultation with resources agencies. Note that these dimensions will be influenced by topography, location, easement width, etc. Also see Appendix E for details on disturbance assumptions.

2 - Included in structure footings

2.1.3.3 Construction Equipment and Workforce

Typical quantities of personnel and equipment needed for proposed construction activities are shown in Table 2-4. The tasks would be conducted in stages; therefore, personnel and equipment would not be working on all tasks simultaneously at a given location, but there would be some overlap in tasks.

Table 2-4. Typical Personnel and Equipment

Activity	Personnel	Equipment	
Right-of-Way (access roads and vegetation clearing)	2 to 4 equipment operators	▪ 1 motor grader ▪ 2 pickup/trucks	▪ 2 bulldozers ▪ 1 backhoe
Excavation for foundations	4 to 8 laborers/equipment operators	▪ 2 augers ▪ 2 backhoes	▪ 2 pickup trucks ▪ 2 compressors
Foundation installation (anchor bolt/rebar cages)	4 to 6 laborers/equipment operators 3 to 5 ironworkers	▪ 2 flat-bed trucks ▪ 2 pickup trucks ▪ 2 air compressors ▪ 2 hydro lifts ▪ 2 welders	▪ 2 to 3 mixer trucks per structure for direct-embedded foundations ▪ 10 to 12 mixer trucks per structure anchor bolt foundations
Structure assembly and erection	4 to 6 linemen/laborers and crane operators	▪ 2 hydro-cranes ▪ 2 tractors	▪ 2 manlifts ▪ 2 pickup trucks
Helicopter use	1 pilot 1 ground person fueler	▪ Helicopter Hughes 500 ▪ fuel truck	
Conductor stringing	20 to 25 linemen/groundmen	▪ 2 pullers ▪ 2 tensioners ▪ 2 bulldozers ▪ 4 reel trailers	▪ 1 materials truck ▪ 2 manlifts ▪ 5 to 6 pickup trucks ▪ 1 light truck

Table 2-4. Typical Personnel and Equipment

Activity	Personnel	Equipment	
Disturbance area restoration (Cleanup and Revegetation)	3 to 6 laborers	▪ 1 bulldozer w/ripper ▪ 1 blader ▪ 1 front-end loader	▪ 1 tractor/harrow/disc ▪ 1 light truck
Substation improvement and expansion	20-25 electricians, linemen, laborers, equipment, operators, and ironworkers	▪ 2 flatbed trucks ▪ 2 bulldozers ▪ 2 cranes ▪ 2 excavators ▪ 5 pickup trucks ▪ 1 fuel truck ▪ 1 puller	▪ 1 tensioner ▪ 2 reel trailers ▪ 1 tractor ▪ 2 materials trucks ▪ 1 blader ▪ 2 mixer trucks ▪ 1 front end loader
Substation construction (Tracy East and Los Banos West)	20-40 electricians, linemen, laborers, equipment, operators, and ironworkers	▪ 2 flatbed trucks ▪ 2 bulldozers ▪ 2 cranes ▪ 2 excavators ▪ 5 pickup trucks ▪ 1 fuel truck ▪ 1 puller	▪ 1 tensioner ▪ 2 reel trailers ▪ 1 tractor ▪ 2 materials trucks ▪ 1 blader ▪ 2 mixer trucks ▪ 1 front end loader

2.1.3.4 Construction Staging

Temporary construction staging areas would be needed to store and stage materials, construction equipment, and vehicles. Although the exact locations have not been determined, locations would be selected that minimize ground disturbance.

2.1.3.5 Right-of-Way Access and Improvements

Construction of a new transmission line requires access to each tower site for construction crews, materials, and equipment. Access to each site would be on an existing road where feasible or on new roads. Existing roads may need to be improved.

Improving existing access roads would involve brush clearing, grading, erosion control and the installation of culverts or rip-rap to maintain stormwater flows within ephemeral wash areas. Lost surface material would be replaced and the road would be graded and shaped. A motor grader is the primary equipment type used to conduct this work, but bulldozers may be used in some areas. Watering may be required to control dust and to retain fine surface rock.

In determining the final location of new roads, large trees or other natural features will be avoided. New access roads would be constructed using a bulldozer or grader, followed by a roller to compact and smooth the ground. Front-end loaders would be used to move the soil locally or off site.

After Project construction, existing and new permanent access roads would be used by maintenance crews and vehicles for inspection and maintenance activities. Temporary construction roads not required for future maintenance access would be removed and restored to pre-construction condition to the extent feasible.

2.1.3.6 Excavation and Foundation Installation for Transmission Line Structures

Installation of structure foundations may require grading and vegetation removal. Where grading is needed, topsoil would be removed and stockpiled for use in site restoration. Temporary topsoil stockpiles would be protected from erosion during construction. Excavating transmission structure

foundations is typically done with a backhoe, front-end loader, or pressure auger. Excavation to bedrock or other suitable base material would be required. A rock drill may be used if rock is encountered during excavation. Four holes would be excavated for each lattice structure and one for each tubular steel or wood pole.

Reinforced concrete foundations would be used for most structures. After the foundation concrete is placed, a mechanical tamp would be used to re-compact soil around the foundation. The disturbed area would be re-graded so that surfaces drain naturally, blend with the natural terrain, and are left in a condition that will facilitate re-vegetation or re-seeding, provide for proper drainage, and prevent erosion.

2.1.3.7 Structure Assembly and Erection

Structure components would typically be transported to installation sites by truck or helicopter. Structures would be erected with cranes. Structure assembly equipment may include cranes (ground or helicopter), augers, bulldozers, bucket trucks, backhoes, air compressors, electric generators, pickup trucks and other vehicles, machinery, and equipment. Structures would be assembled, erected, and attached to the foundations (see Figure 2-5).

2.1.3.8 Conductor Stringing

Conductor stringing would occur at designated pull and tensioning sites (see Figure 2-5). Generally the pull sites would be located within the easement. Angle-structure pull sites would require temporary easement rights if located outside the easement to pull the conductor on a straight line. The locations of pull sites depend on environmental constraints, conductor length, and equipment access. Pull sites would be located within the study area.

Large reels of conductor would be transported to the staging areas or pulling sites on flatbed trucks. Other equipment would include stringing trailers, tensioning machines, pullers, bulldozers, and several trucks including a bucket truck.

Temporary stringing sheaves or travelers (pulleys) would be attached on the cross-arms of each structure at the bottom of the insulator strings. A sock line (rope or lightweight wire) would then be strung from structure to structure through the stringing sheaves. This may be completed using a helicopter. A pulling line would then be attached to the end of the sock line and pulled back through the sheaves between pull site locations. Conductor would then be strung using the pulling line.

Powered pulling equipment would be used at one end and tensioning equipment would be used at the other end to establish the proper tension and sag for crews to permanently “clip” conductors onto structure hardware, and to maintain the proper ground clearance for the conductors. After conductors are clipped in, the stringing sheaves would be removed and the new conductor would be connected to the insulators hanging from the cross-arms. Ground wire would be installed last and would be attached to the top of the structures using a pulling technique similar to that used for the conductors.

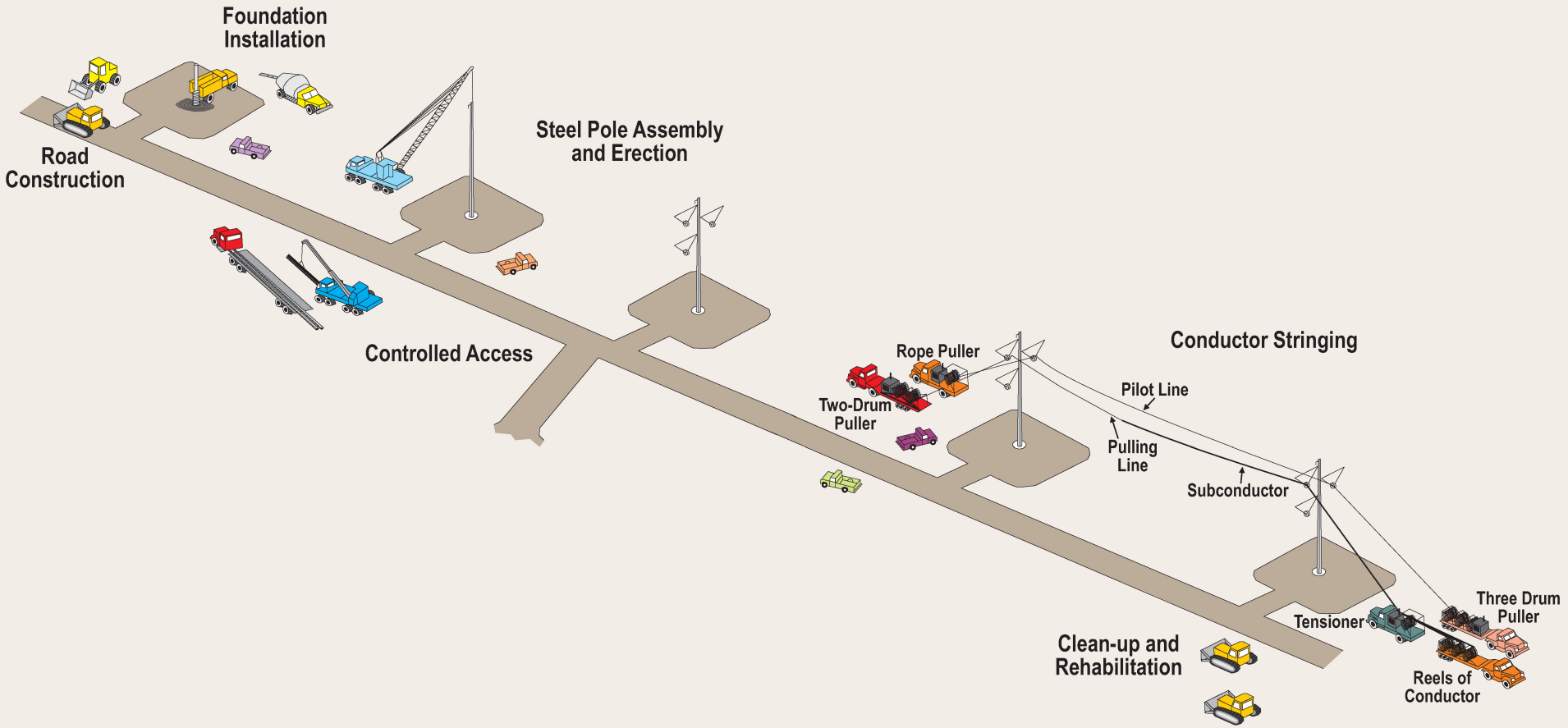


Figure 2-5
Typical Tower Construction and Wire Conductoring Activities and Equipment

2.1.3.9 Substations

Existing Substations

Modifications to and/or expansion of existing substations would be needed to interconnect SLTP facilities. Modifications may include constructing new 230-kV line terminal bay facilities at the Tracy, San Luis, Los Banos and/or Dos Amigos Substations. Expansion of existing substations may be required if the existing substations are unable to accommodate a new terminal bay. Western also would construct a new 230/70-kV transformer bank bay and interconnection facility at the San Luis Substation. To accommodate these modifications, the existing substations may be expanded within the limits of the Project area.

Proposed New Substations

Generally, substation construction would include site grading, property and substation fencing, and installation of electrical facilities. The site would be excavated and graded to accommodate the required construction and permanent facility buildings, equipment, and electrical structures. A fence would be erected around the substation perimeter. Up to 50 acres would be graded for each new substation. Area lighting would be provided by multiple 300-watt tungsten-quartz lamps mounted near major electrical equipment. Additionally, downward-oriented 100-watt yellow flood lamps would be placed near entrances and the substation gate for night entry and would remain on throughout the night.

The electrical facilities proposed for the new Tracy East Substation would accommodate the termination of one 500-kV transmission line. These facilities would include a 500-kV terminal bay, associated breakers, disconnect switches, protective relays, metering and Supervisory Control and Data Acquisition (SCADA) system equipment, and associated features.

The electrical facilities proposed for the new Los Banos West Substation would accommodate the termination of three 500-kV transmission lines and one 230-kV transmission line. These facilities would include three 500-kV terminal bays, a 230-kV terminal bay, a 500/230-kV transformer bay and associated breakers, disconnect switches, protective relays, metering and SCADA system equipment, and associated features.

2.1.3.10 Disturbance Area Restoration

Areas temporarily disturbed by construction would be restored to pre-construction conditions, to the extent feasible. Western would re-grade disturbed areas to establish original contours, and redistribute topsoil. All disturbed soil, other than surfaces intended for permanent access roads, would be seeded with native species free of invasive seeds. Where necessary, water diversions (i.e., waterbars) would be constructed along access roads to control surface water drainage and erosion. See Appendix E for SLTP ground disturbance assumptions.

2.1.4 Operation and Maintenance

Western must comply with North American Electric Reliability Corporation and Western Electricity Coordinating Council standards and requirements for transmission system reliability, including maintenance and vegetation management. In order to comply with these requirements, Western has a comprehensive O&M program for all of its property and facilities including transmission lines, substations, communication facilities, and legal access roads. This O&M program ensures reliability of the transmission systems and safe, all-weather access to the transmission line structures and other Western facilities. The O&M activities proposed for the SLTP would be consistent with Western's O&M program, which is presented in Appendix D.

2.1.5 Decommissioning

If no longer needed, facilities ~~any one of the transmission lines~~ would be removed. Removed facilities would include wires, insulators, hardware, structures, and foundations from the easements. All decommissioning activities would occur within the same disturbance area identified for construction.

Material would be disposed of in accordance with applicable regulations, and may be salvaged or sold. The equipment required to safely remove the wires and structures would be nearly the same as that required for installation. Following removal, any areas disturbed during line dismantling would be restored and rehabilitated. Disturbed surfaces would be restored to the original contour. All disturbed soil, other than surfaces intended for permanent access roads, would be seeded with native species free of invasive seeds.

Western would reclaim temporary service roads following abandonment in accordance with land management agency or landowner agreements. Equipment and personnel for restoration operations would be similar to that required at the end of construction. Where required by the land management agency or landowner, compacted areas would be ripped (with a dozer) and sediment control measures (e.g., revegetation) would be implemented.

2.1.6 Environmental Protection Measures and Construction Standards

Western implements Environmental Protection Measures (EPMs) and Construction Standards to reduce environmental consequences associated with its construction and maintenance activities. The analysis of environmental consequences (Chapter 4) accounts for the EPMs listed in Table 2-5 and the Construction Standards presented in Appendix F, which would be implemented as part of the Project.

Table 2-5. Environmental Protection Measures

Resource	EPM
Air Quality	Project participants will comply with applicable federal, State, and local rules and regulations regarding air quality.
Air Quality	Equipment and vehicles will be operated in compliance with applicable federal, State, and local rules and regulations regarding air quality.
Air Quality	Vehicles and equipment used in construction and maintenance of the Proposed Project or alternatives will maintain appropriate emissions control equipment and be appropriately permitted.
Air Quality	Regular watering of exposed soils and unpaved access roads will be conducted during the construction period.
Air Quality	Engine idling will be in accordance with an idling policy compliant with applicable ~~the~~ California State regulations.
Air Quality	If new sulfur hexafluoride equipment is installed as part of the Project, Western will include this information in their annual reports to California Air Resources Board and the Environmental Protection Agency. Best management practices will be followed to eliminate sulfur hexafluoride emissions during installation and commissioning.
Biological Resources	All Western and contract crews will complete biological awareness training to ensure they are familiar with sensitive biological resources and the associated EPMs and mitigation measures. All supervisors and field personnel will have on file a signed agreement that they have completed the training, and understood and agreed to the terms. EPMs and applicable mitigation measures will be written into the contract for construction and O&M work, and contractors will be held responsible for compliance.
Biological Resources	Vehicle traffic will be restricted to designated access routes and the immediate vicinity of construction and O&M sites. Vehicle speeds will not exceed 15 mph on nonpublic access and maintenance roads and 10 mph on unimproved access routes. Vehicles and equipment will be parked on pavement, existing roads, and previously disturbed areas, to the extent feasible.

Table 2-5. Environmental Protection Measures

Resource	EPM
Biological Resources	No pets or firearms will be permitted at Project sites.
Biological Resources	At the end of each work day, construction and O&M workers will leave work areas and adjacent habitats to minimize disturbance to actively foraging animals, and remove food-related trash from the work site in closed containers for disposal. Workers will not deliberately or inadvertently feed wildlife.
Biological Resources	Nighttime construction and O&M activities will be minimized to emergency situations. If nighttime construction and O&M work is required, lights will be directed to the minimum area needed to illuminate Project work areas. If night time work is required, a speed limit of 10 mph will be enforced on all nonpublic access roads.
Biological Resources	Mortalities or injuries to any wildlife that occur as a result of Project- or maintenance-related actions will be reported immediately to the Western Natural Resources Department or other designated point of contact, who will instruct construction and O&M personnel on the appropriate action, and who will contact the appropriate agency if the species is listed. The phone number for the Western Natural Resources Department or designated point of contact will be provided to the construction contractors, maintenance supervisors and to the appropriate agencies.
Biological Resources	Caves, mine tunnels, and rock outcrops will never be entered, climbed upon, or otherwise disturbed.
Biological Resources	If a pesticide label stipulates a buffer zone width for protection of natural resources that differs from that specified in a Project mitigation measure or EPM, the buffer zone width that offers the greatest protection will be applied.
Biological Resources	At completion of work and at the request of the landowner/manager, all work areas except access roads will be scarified or left in a condition that will facilitate natural or appropriate vegetation, provide for proper drainage, and prevent erosion.
Biological Resources	Prior to any application of herbicide, Western will query the California Department of Pesticide Regulation PRESCRIBE database, entering location information by county, township, range, and section, entering both the commercial name and the formulation of the desired pesticide, and will follow all use limitations provided to ensure compliance with applicable pesticide standards. This database is currently located at http://www.cdpr.ca.gov/docs/endspec/prescint.htm. The measures generated by the PRESCRIBE database will supersede those in the Project EPMs where they are different.
Biological Resources	Seed mixtures applied for erosion control and restoration will be certified as free of noxious weed seed, and will be composed of native species or sterile nonnative species.
Biological Resources	Equipment will be washed prior to entering sensitive areas within the Project area to control noxious weeds. The rinse water will be disposed of through the sanitary sewage system or other appropriate disposal method that minimizes the spread of noxious weeds.
Biological Resources	Measures described in the Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006 (Avian Power Line Interaction Committee 2006 or more current version) and Reducing Avian Collisions with Power Lines: The State of the Art in 2012 (Avian Power Line Interaction Committee 2012 or more current version) will be implemented during O&M activities to minimize bird mortality and injury. At such time when Western finalizes an Avian Protection Plan, Western will adhere to the guidance in that document.
Biological Resources	Construction and O&M excavations greater than 3 feet deep will be fenced, covered, or filled at the end of each working day, or have escape ramps provided to prevent the entrapment of wildlife. Trenches and holes will be inspected for entrapped wildlife before being filled. Any entrapped animals will be allowed to escape voluntarily before construction and O&M activities resume, or they may be removed by qualified personnel, with an appropriate handling permit if necessary.

Table 2-5. Environmental Protection Measures

Resource	EPM
Biological Resources	A hazardous-spill plan will be developed prior to construction and will remain in effect for all O&M activities. The plan will describe what actions will be taken in the event of a spill of toxic or hazardous materials. The plan will incorporate preventive measures to be implemented for vehicle and equipment staging, cleaning, maintenance, and refueling, and for containment management and storage of hazardous materials, including fuel. In the event of a contaminant spill, work at the site will immediately cease until the contractor has contained and mitigated the spill. The contractor will immediately prevent further contamination, notify appropriate authorities, notify Western's regional environmental manager, and will mitigate damage as appropriate. Adequate spill containment materials, such as oil diaper mats and hydrocarbon cleanup kits, will be available on site at all times, as will containers for storage, transportation, and disposal of contaminated absorbent materials.
Cultural Resources, Paleontological Resources	Before construction, all construction personnel will be instructed by Western on the protection of cultural and paleontological resources and that cultural and paleontological resources might be present in the study area. To assist in this effort, the construction contract will address applicable federal and State laws regarding cultural and paleontological resources, including historic and prehistoric resources, and fossils. Construction personnel will be informed of the penalties for collection and removal of such resources, as well as the importance of these resources and the purpose and necessity of protecting them. Contractors will be trained to stop work near any discovery and notify Western's regional environmental manager immediately, who will ensure that the resource is evaluated and avoided. Known cultural and paleontological resources will be flagged for avoidance and a minimum distance maintained for work disturbances.
Cultural Resources	Western will have qualified archaeological monitors on site during ground disturbing construction activities. Archaeological monitors will look for any inadvertent cultural resource discoveries or other sensitive resources that may be important to tribes. Archaeologists will stop work in the immediate area should any such resources be uncovered until an assessment of the find can be made by Western.
Cultural Resources	Cultural resources would be considered during post-EIS/EIR phases of Project implementation. Surveys would be completed prior to any ground disturbing activities or Project construction activities in order to inventory and evaluate cultural resources of the Project, or of any components that might be added to the Project, or any existing components that would be modified. These surveys and any resulting historic property evaluation and analysis of effects would be conducted in accordance with Section 106 of the National Historic Preservation Act (NHPA) and in consultation with the State Historic Preservation Officer (SHPO). If adverse effects to historic properties cannot be avoided, Western would develop a Programmatic Agreement (PA) or Memorandum of Agreement (MOA) in consultation with the SHPO to determine appropriate mitigation to avoid lessen any adverse effects to cultural resources.
Geology, Soils, and Mineral Resources	Erosion control measures will be implemented to prevent loss of soil. Construction will be in conformance with Western's Integrated Vegetation Management Environmental Guidance Manual.
Land Use and Agriculture	Post proper signage in areas within the easement that will require temporary closure or limited access to accommodate certain land uses. Where feasible, construction activities would be scheduled to minimize impacts to agricultural activities. If this is not feasible and damage occurs, the landowner may be compensated.
Land Use and Agriculture	On completion of the work, all work areas except permanent access roads will be returned to pre-construction conditions unless otherwise specified by the landowner/manager.
Land Use and Agriculture	During construction, movement will be limited (to the greatest extent feasible) to the access roads and within a designated area in the easement to minimize damage to agricultural land.
Land Use and Agriculture	Damaged fences and gates will be repaired or replaced to restore them to their pre-construction condition.
Land Use	Construction and operations will be conducted in a manner that prevents unnecessary destruction, scarring, or defacing of the natural surroundings and to preserve the natural landscape to the extent practicable.
Land Use	No permanent discoloring agents will be applied to rocks or vegetation to indicate limits of survey.
Noise	All vehicles and equipment will be equipped with required exhaust noise abatement suppression devices.

Table 2-5. Environmental Protection Measures

Resource	EPM
Traffic and Transportation	Western will restrict all necessary lane closures or obstructions on major roadways associated with construction activities to off-peak periods to avoid substantial traffic congestion and delays.
Traffic and Transportation	Western will ensure that roads or sidewalks damaged by construction activities will be properly restored to their pre-construction condition.
Traffic and Transportation	Conform with applicable safety requirements for maintaining the flow of public traffic and conduct construction and operations to minimize obstruction and inconvenience to public transportation.
Traffic and Transportation	Mark structures and/or shield wire with highly visible devices for identified locations, as required by applicable laws and regulations (for example, Federal Aviation Administration regulations).
Water Resources, Wetlands	Runoff from the construction and O&M sites will be controlled and meet applicable RWQCB stormwater requirements and the conditions of a construction stormwater discharge permit. A stormwater pollution prevention plan will be prepared and implemented.
Water Resources and Floodplains	All contaminated discharge water created by construction and O&M activities (e.g., concrete washout, pumping for work area isolation, vehicle wash water, drilling fluids) will be contained and disposed of in accordance with applicable federal, State, and local regulations.
Water Resources and Floodplains	All fill or rip-rap placed within a stream or river channel will be limited to the minimum area required for access or protection of existing Western facilities.
Water Resources and Floodplains	All equipment will be stored, fueled, and maintained in vehicle staging areas 300 feet or the maximum feasible distance from any aquatic habitat (vernal pool, vernal pool grassland, seasonal wetland, seep, spring, pond, lake, river, stream, or marsh) and no closer than 200 feet unless a bermed (no ground disturbance) and lined refueling area is constructed and hazardous-material absorbent pads are available in the event of a spill. Vehicles and construction equipment will be inspected daily for fluid leaks before leaving staging areas during construction and O&M activities. Fluid leaks will be repaired before equipment is moved from staging areas.
Water Resources and Floodplains	All instream work, such as culvert replacement or installation, bank recontouring, or placement of bank protection below the high-water line, will be conducted during no-flow or low-flow conditions and in a manner to avoid impacts to water flow, and will be restricted to the minimum area necessary for completion of the work.
Water Resources and Floodplains	All equipment used below the ordinary high-water mark will be free of exterior contamination.
Water Resources and Floodplains	Excavated material or other construction materials will not be stockpiled or deposited near or on stream banks, lake shorelines, or other watercourse perimeters.
Water Resources and Floodplains	Non-biodegradable debris will be collected and removed from the easement daily and taken to a disposal facility. Slash and other biodegradable debris will be left in place or disposed of.
Water Resources and Floodplains	All soil excavated for structure foundations will be backfilled and tamped around the foundations, and used to provide positive drainage around the structure foundations. Excess soil will be removed from the site and disposed of appropriately. Areas around structure footings will be reseeded with native plants.
Water Resources and Floodplains	Wherever feasible, new structures and access roads will be sited out of floodplains. Bridges will be used at new stream crossings wherever feasible. If avoidance is infeasible, Western will consult with USACE and obtain permits as required.
Water Resources and Floodplains	If wet areas cannot be avoided, Western will use vehicles, ground mats, and equipment that minimize ground impacts.
Water Resources and Floodplains	Construction vehicle movement outside of the easement will be restricted (to the extent feasible) to approved access or public roads.
Water Resources and Floodplains	Where feasible, all construction activities will be rerouted around wet areas while ensuring that the route does not cross sensitive resource areas.

2.2 Alternatives Development

One of the most important aspects of the NEPA and CEQA processes is the identification and assessment of reasonable alternatives that have the potential for avoiding or minimizing the impacts of a Proposed Project. This EIS/EIR presents a range of alternatives based on whether or not the alternatives meet (1) most of the project objectives/purpose and need; (2) are considered potentially feasible; and (3) would avoid or substantially lessen any potential significant effects of the Proposed Project. For additional information on the alternatives development process refer to the Alternatives Screening Report (ASR) in Appendix A.

2.2.1 Corridor Alternatives

The alternatives presented below have been chosen for detailed analysis in the EIS/EIR through the alternative screening process. Alternative corridors begin and end at points in common with the Proposed Project and other alternatives. The Project area was divided at the common points into four segments in order to facilitate a fair or equal comparison between the impacts of the alternatives and the Proposed Project. Table 2-6 and Figures 2-6a through 2-6e present the segments and the alternatives retained for analysis within each segment.

Table 2-6. Alternatives by Segment

Segments	Number of Alternatives	Alternative Name(s)
North Segment	0	None
Central Segment	1	Patterson Pass Alternative
San Luis Segment	2	Butts Road Alternative West of Cemetery Alternative
	1 (70-kV)	West of O'Neill Forebay Alternative
South Segment	2	San Luis to Dos Amigos Alternative Billy Wright Road Alternative

2.2.1.1 Patterson Pass Road Alternative

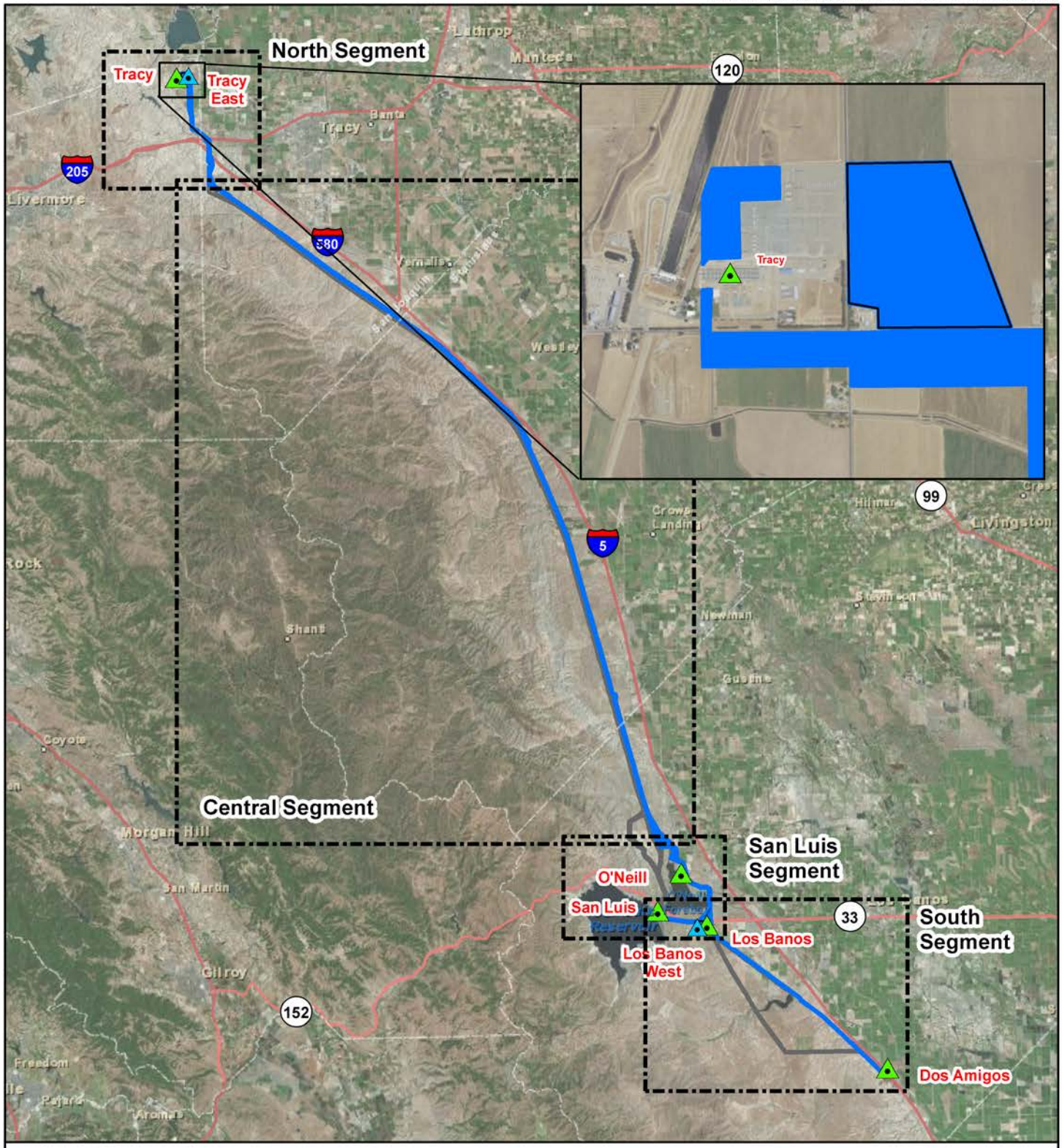
An alternative corridor would extend from a point near Patterson Pass Road in the north to a point near Butts Road in the south. It would run parallel to the Proposed Project, but on the western side of the existing high-voltage transmission lines, further from I-5 for approximately 48 miles.

2.2.1.2 Butts Road Alternative

At Butts Road, this alternative corridor would continue south on the west side of the existing transmission corridor for approximately 2.2 miles. At about McCabe Road, this alternative would turn southwest for about 4.0 miles, crossing State Route (SR) 152 and bypassing the existing San Luis Substation. This alternative would then head east paralleling SR 152 to the south for 2.8 miles where it would interconnect with the Los Banos Substation or new Los Banos West Substation, using the same corridor as tie-line. This alternative would be about 10 miles in length.

2.2.1.3 West of Cemetery Alternative

At Butts Road, this alternative would head west and then south from the existing transmission corridor and then extend around the west side of the San Joaquin Valley National Cemetery (Cemetery) for approximately 2.6 miles. At this point, it would begin to follow an existing PG&E 500-kV corridor for about 1.4 miles until it turns southwest, crossing SR 152 and bypassing the existing San Luis Substation. This alternative would then head east paralleling SR 152 to the south for 2.8 miles where it would interconnect with either the existing Los Banos Substation or new Los Banos West Substation, using the same corridor as the tie-line. This alternative would be about 10 miles in length.



Western AREA POWER ADMINISTRATION

Proposed New Substations
Existing Substations
Tracy East Substation Area*
Proposed Project Corridor
Corridor Alternatives

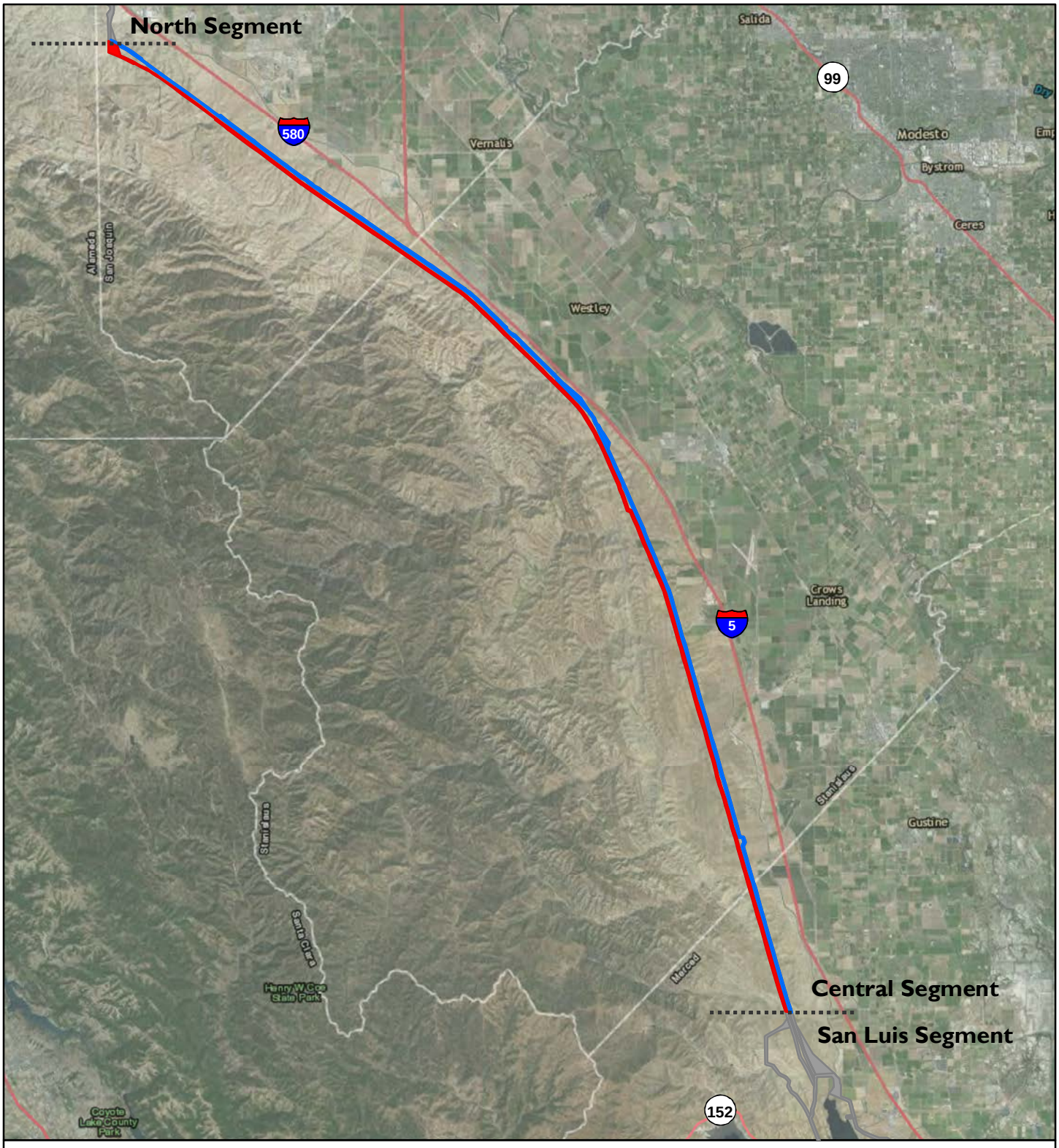
Figure 2-6a.

Proposed Project Segments

* Proposed new Tracy East Substation would occupy up to 50 acres within this area

0 5 10 Miles

Source: WAPA SNR, Aspen EG, ESRI



Western AREA POWER ADMINISTRATION

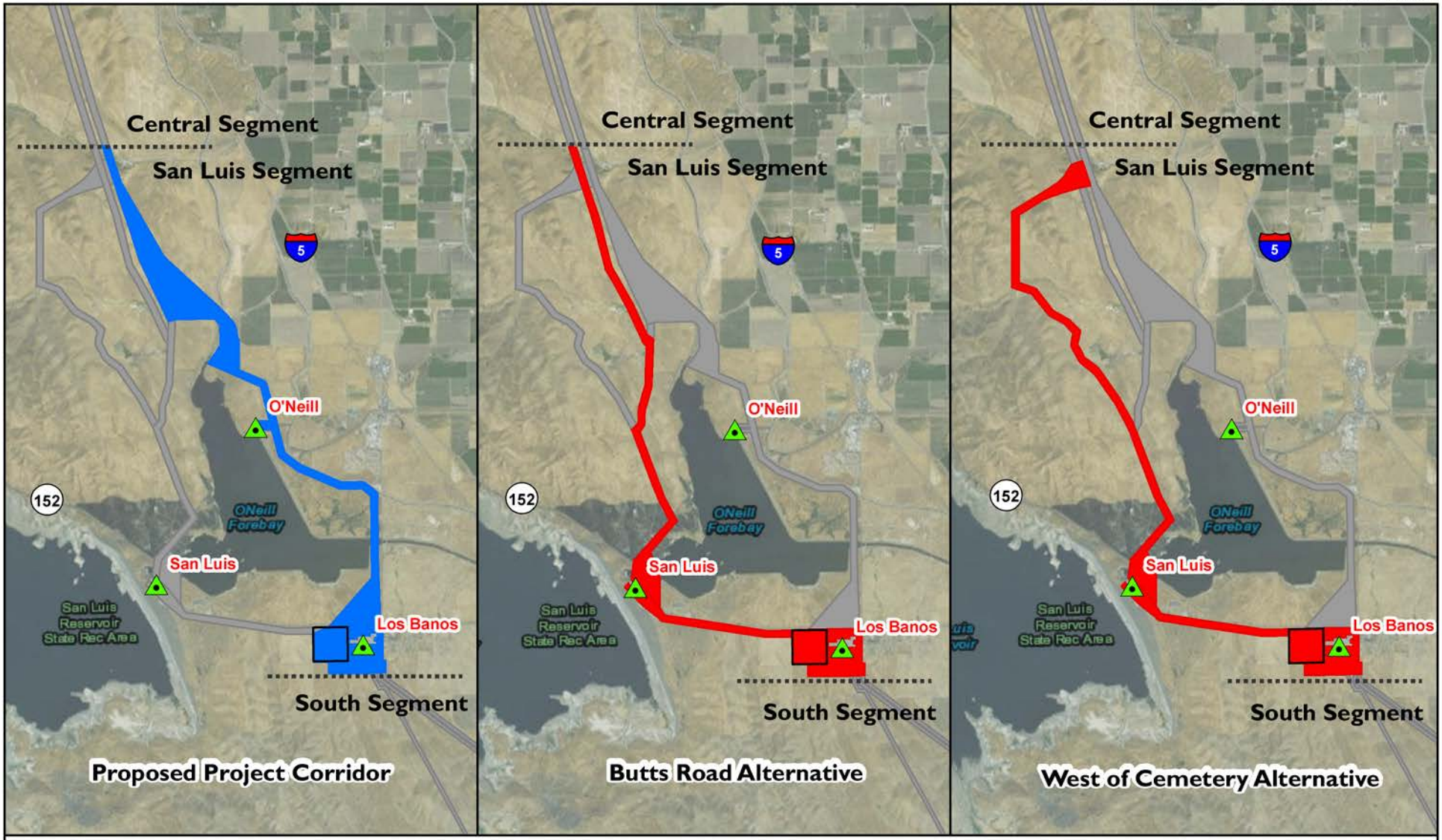
Figure 2-6b.

Corridor Alternatives
Central Segment

Patterson Pass Road Alternative
Proposed Project
Other Corridors

0 3 6 Miles

Source: WAPA SNR, Aspen EG, ESRI



Western Area Power Administration

Existing Substations
Los Banos West Substation Area*
Corridor Alternative
Proposed Project
Other Corridors

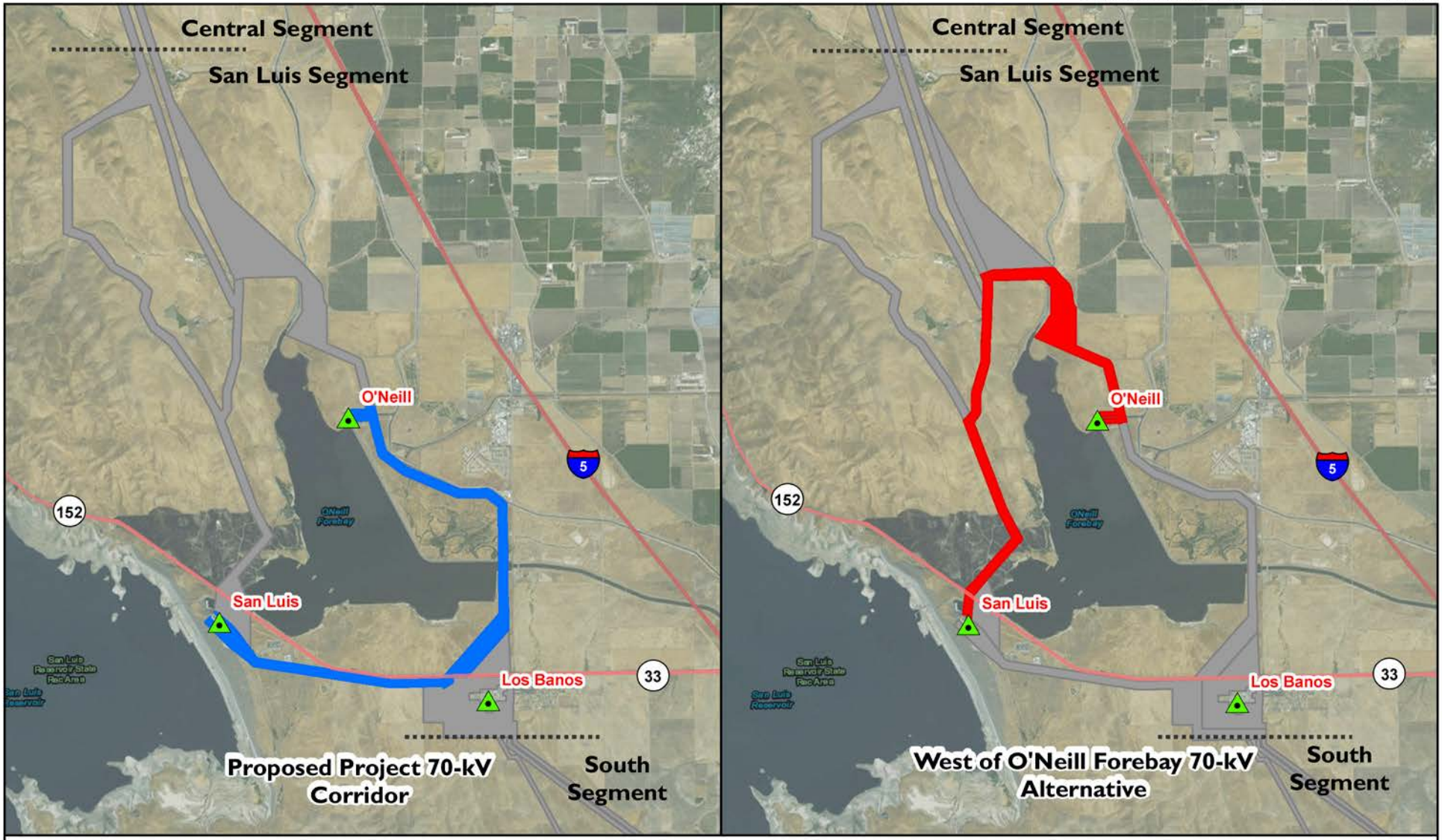
Figure 2-6c.

Corridor Alternatives
San Luis Segment

0 1 2 Miles

Source: WAPA SNR, Aspen EG, ESRI

* Proposed new Los Banos West Substation would occupy up to 50 acres within this area



Western AREA POWER ADMINISTRATION

Existing Substations
Corridor Alternative
Proposed Project
Other Corridors

Figure 2-6d.

70-kV Corridor Alternatives
San Luis Segment

0 1 2 Miles

Source: WAPA SNR, Aspen EG, ESRI

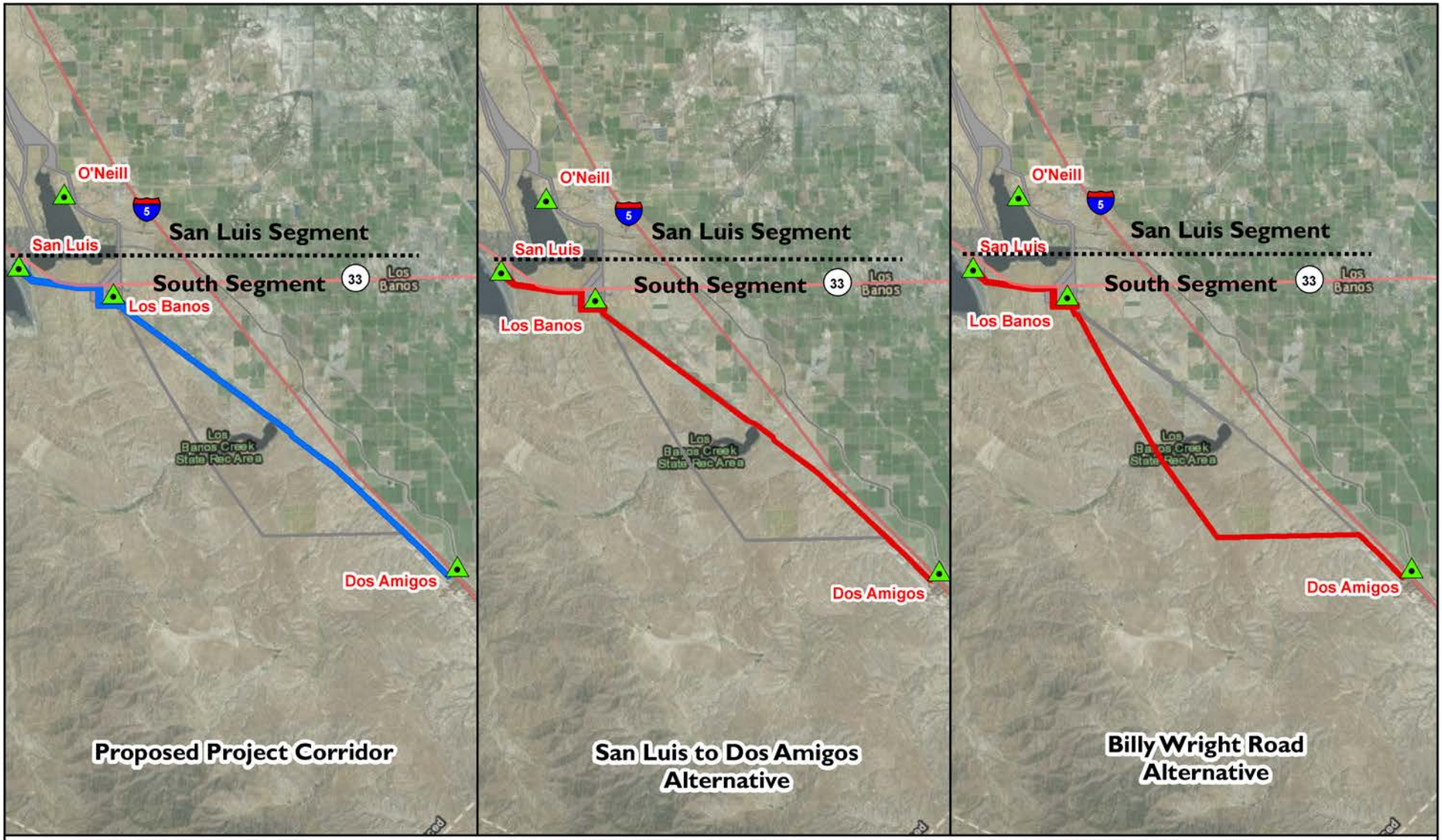


Figure 2-6e.

Corridor Alternatives
South Segment

Source: WAPA SNR, Aspen EG, ESRI

2.2.1.4 West of O'Neill Forebay 70-kV Alternative

This alternative corridor would extend from the San Luis Substation, cross SR 152, and run northeast for about 1 mile. At this point, it would begin to follow an existing PG&E transmission corridor for about 2.6 miles around the west side of the O'Neill Forebay to a point just north of McCabe Road. At that point, it would turn east and then turn to the southeast, in the preferred corridor, around the northeast side of the Forebay, following another PG&E high-voltage transmission corridor, to a point where it would terminate at the O'Neill Substation.

2.2.1.5 San Luis to Dos Amigos Alternative

This alternative would start at San Luis Substation and would run parallel to SR 152 heading east for approximately 2.8 miles, using the same corridor as the tie-line, to a point near the Los Banos Substation; no interconnection with the Los Banos or the new Los Banos West Substations would occur. At this point, this alternative corridor would extend approximately 6 miles south along the western side of the existing high-voltage transmission lines. Just north of the Los Banos Creek Reservoir, this alternative would cross the existing high-voltage transmission lines and would join the Proposed Project corridor as it extends to the Dos Amigos Substation.

2.2.1.6 Billy Wright Road Alternative

This alternative would start at San Luis Substation and would run parallel to SR 152 heading east for approximately 2.8 miles, using the same corridor as the tie-line, to a point near the Los Banos Substation; no interconnection with the Los Banos or new Los Banos West Substations would occur. At this point, the alternative corridor would head south adjacent to and east of the existing PG&E 500-kV transmission lines for approximately 9 miles, before turning due east for approximately 4.5 miles to join the Proposed Project corridor as it extends to the Dos Amigos Substation.

2.2.2 Alternatives Considered and Eliminated

The alternatives listed in Table 2-7 were eliminated from consideration in the EIS/EIR. Detailed descriptions of these alternatives and the reasons for their elimination are presented in the ASR (Appendix A).

2.3 No Action/No Project Alternative

Under the No Action/No Project Alternative, construction of the SLTP would not occur. Western would arrange for transmission service for the SLU from the CAISO through the use of existing electric infrastructure. The estimated increase cost to Reclamation the first full year by taking service under the CAISO Tariff is expected to be at least $8 million~~.~~ (and could potentially be significantly higher). Reclamation's operating costs associated with delivering federal energy from Tracy to the SLU pumping facilities are paid by its water service contractors. Reclamation has studied and compared the total cost of CAISO service with the estimated costs of constructing, operating, and maintaining the SLTP over the life of the Project. The total estimated range of CAISO Tariff service costs to be incurred by the Federal Government for the Gianelli, O'Neill, and Dos Amigos facilities upon termination of the PG&E contract will range from $5,306,400 to $8,767,600 per year beginning April 2016, and are expected to increase in the future. The uncertainty ~~disparity~~ in these costs going forward, and the potential for achieving cost certainty and cost savings over the life of a replacement transmission line, ~~is so great that reasonable prudence~~ requires Reclamation and the Authority to ~~pursue and~~ evaluate and pursue the proposed SLTP. Refer to Section 1.2 and Appendix K (Cost Analysis) for additional information on the economic analysis.)

Table 2-7. Alternatives Considered and Eliminated

Alternative	Description
Mountain House Road 500-kV Corridor	Western developed this alternative to minimize the length of the Proposed Project and reduce impacts to houses in the Mountain House Developments. This alternative corridor would exit the Tracy Substation and extend due south for about 0.9 mile along Mountain House Road, then turn southeast for approximately 0.8 mile through agricultural fields before intersecting the Proposed Project at the existing transmission corridor. In comparison to the Proposed Project, however, it would result in greater agricultural and visual impacts and construction disturbance to nearby school and residents. This alternative would reduce some potential impacts of the Proposed Project, but create other impacts that are potentially more severe; therefore; it was eliminated from consideration.
Grant Line Road 500-kV Corridor	Western developed this alternative corridor to minimize canal crossings. It would deviate from the Proposed Project and the existing transmission line corridor to remain along the east side of the Delta-Mendota Canal for about 0.7 mile. This short alternative segment would be about the same length as the Proposed Project. However, it would be about 0.25 mile closer to a new residential community along Grant Line Road in unincorporated Tracy, and therefore result in greater visual impacts. This alternative would reduce some potential impacts of the Proposed Project, but create other impacts that are potentially more severe; therefore; it was eliminated from consideration.
Delta-Mendota Canal/Interstate 580 500-kV Corridor	Western developed this alternative in response to comments requesting an alternative that uses the corridor between the Delta-Mendota Canal and Interstate 580, to avoid houses west of the Proposed Project near Patterson Pass Road. The California Aqueduct runs down the center of this corridor, and therefore, more specifically, the route would be located between the California Aqueduct and Interstate 580. This alternative also avoids impacts to the Tracy Hills conservation easements located west of Interstate 580. This corridor would deviate from the Proposed Project just south of the California Aqueduct and would continue south for about 7.3 miles between the California Aqueduct and Interstate 580 until it turns southwest, across Interstate 580, to rejoin the Proposed Project. In comparison to the Proposed Project, it would reduce land use and biological resource impacts. However, this alternative would increase visual impacts in comparison to the Proposed Project as it would introduce new transmission infrastructure to an area previously without transmission lines. Furthermore, It would be technically infeasible as certain locations between the California Aqueduct and Interstate 580 are too narrow to allow for construction, operation, and maintenance of a transmission line.
East of Delta-Mendota Canal 500-kV Corridor	Western developed this alternative corridor to address public comments about the proximity of the Proposed Project to houses near Patterson Pass Road. It would provide another option to the Delta-Mendota Canal/Interstate 580 Alternative. It would deviate from the Proposed Project 0.1 mile south of Interstate 205 and continue southeast on the east side of the Delta-Mendota Canal for about 3 miles. It would then cross the California Aqueduct and extend southeast, traversing agricultural fields, between the Delta-Mendota Canal and the California Aqueduct for about 1.3 miles before crossing the California Aqueduct to join the Delta-Mendota Canal/Interstate 580 Alternative. In comparison to the Proposed Project, this alternative would potentially reduce land use and biological resource impacts, but would potentially increase visual and agricultural impacts. Furthermore, this alternative is technically infeasible as certain locations between the Delta-Mendota Canal and existing cell towers are too narrow to allow for construction, operation, and maintenance of a transmission line.
West of Cemetery 2 500-kV Corridor	Western developed this alternative corridor to avoid approved solar development and to reduce visual impacts to visitors of the San Joaquin National Cemetery. It would provide another option to the West of Cemetery Alternative that is further from the San Joaquin Valley National Cemetery. This alternative would extend south from the West of Cemetery Alternative Corridor at about 1.4 miles northeast of the Cemetery. This corridor would follow a valley, behind a ridgeline, until it turns east to rejoin the West of Cemetery Alternative about 1 mile southeast of the Cemetery. In comparison to the Proposed Project, this alternative would reduce potential land use conflicts and visual impacts. However, due to the ruggedness of the terrain this alternative would potentially cause soil erosion and water quality impacts, and may be technically infeasible.

Table 2-7. Alternatives Considered and Eliminated

Alternative	Description
Forebay 500-kV Corridor	Western developed this alternative corridor to shorten the length of the Project and maximize use of existing transmission corridors. This alternative would provide another option to the West of O'Neill Forebay Alternative. This alternative would deviate from the West of O'Neill Forebay Alternative where that alternative turns southwest towards the San Luis Substation. This alternative would continue southeast following two existing PG&E 500-kV transmission lines across the southeastern portion of the O'Neill Forebay to the Los Banos Substation. A 0.7-mile segment of this alternative would cross the O'Neill Forebay in the existing transmission corridor. This alternative would maximize the use of existing transmission line easements. However, construction in the Forebay would result in potential water quality, soil erosion, and recreation impacts This alternative would not reduce the potential impacts of the Proposed Project; therefore; it was eliminated from consideration.
Jasper Sears Road Alternative	Western developed this alternative in response to scoping comments about potential land use conflicts of the Proposed Project with proposed solar development (Wright Solar Park), and current and proposed residential development (The Villages of Laguna San Luis), south of the Los Banos Substation. Scoping comments suggested an alternative alignment along Jasper Sears Road to minimize conflicts to The Villages of Laguna San Luis. This alternative corridor would exit the Los Banos Substation from the south and follow Jasper Sears Road and Western's existing 500-kV transmission line for about 9 miles before turning due east for about 5.3 miles to join the Proposed Project. This alternative would avoid proposed solar development; however, it would conflict with the planned Agua Fria development. It would result in more ground disturbance than the Proposed Project. This alternative would reduce some potential impacts of the Proposed Project, but create other impacts that are potentially more severe; therefore, it was eliminated from consideration.

2.4 Comparison of Alternatives

This section identifies the environmentally preferred alternative (i.e., CEQA's environmentally superior alternative) and the agency preferred alternative and presents detailed information regardi~~ng its t~~heir selection pursuant to the requirements of NEPA and CEQA.

2.4.1 Regulatory Requirements for Alternatives Comparison

National Environmental Policy Act

Under NEPA, the ~~Draft~~ EIS/EIR should identify the environmentally preferable or superior alternative from a range of alternatives considered if one exists at the draft stage. Commenters from other agencies and the public also are encouraged to address this question. ~~However, in all situations, t~~The environmentally preferable alternative must be identified in the Record of Decision on the Final EIS/EIR [Forty Questions No. 6(a) and 6(b)]. The answer to Forty Questions No. 6(a) states:

> *a. Section 1505.2(b) requires that, in cases where an EIS has been prepared, the Record of Decision (ROD) must identify all alternatives that were considered, "...specifying the alternative or alternatives which were considered to be environmentally preferable." The environmentally preferable alternative is the alternative that will promote the national environmental policy as expressed in NEPA's Section 101. Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources.*
>
> *The Council recognizes that the identification of the environmentally preferable alternative may involve difficult judgments, particularly when one environmental value must be balanced against another. The public and other agencies reviewing a Draft EIS can assist the lead agency to develop*

and determine environmentally preferable alternatives by providing their views in comments on the Draft EIS. Through the identification of the environmentally preferable alternative, the decision-maker is clearly faced with a choice between that alternative and others, and must consider whether the decision accords with the Congressionally declared policies of the Act.

California Environmental Quality Act

CEQA requires the following for alternatives analysis and comparison:

The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the Proposed Project. A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed. Guidelines Section 15126.6(d)

If the environmentally superior alternative is the No Project Alternative, CEQA requires identification of an environmentally superior action alternative among the other alternatives [CEQA Guidelines Section 15126.6(e)(2)]. In this EIS/EIR, the NEPA term "environmentally preferred alternative" is used to describe CEQA's environmentally superior alternative.

2.4.2 Alternatives Comparison Methods

~~To evaluate the various corridor alternatives, the Project area was divided into segments, as described in Section 2.2.1. The alternatives within each segment were compared to the analogous portion of the Proposed Project to identify the environmentally preferred corridor within each segment. The environmentally preferred corridor within the North, Central, San Luis and South segments were combined to comprise the Environmentally Preferred Action Alternative. Finally, the Environmentally Preferred Action Alternative was compared to the No Action Alternative to identify the Overall Environmentally Preferred Alternative.~~

Under the No Action/No Project Alternative, construction of the SLTP would not occur. Western would arrange for transmission service for the SLU from the CAISO using existing electric infrastructure. As there would be no new adverse direct environmental impacts under this alternative, it is the **Environmentally Preferred Alternative.**

However, as detailed in Section 1.2 and Appendix K, which address Reclamation's estimated transmission costs under the No Action/No Project Alternative (i.e., the CAISO Tariff) over a 50-year period, the No Action/No Project Alternative is not cost effective and involves substantial cost uncertainties. Further, the No Action/No Project Alternative would not achieve the purpose and need or basic project objectives.

CEQA Guidelines Section 15126.6(e)(2) requires that if the environmentally preferred alternative is the No Action/No Project Alternative, an EIR shall identify the environmentally preferred alternative among the action alternatives.

~~Determining an environmentally preferred alternative requires balancing many environmental factors.~~ In order to identify the environmentally preferred action alternative, the most important impacts in each issue area were identified and compared in Tables 2-8 through 2-11. Each of these tables presents a preference ranking and a brief explanation of the ranking for each environmental issue area. ~~Although this Draft EIS/EIR identifies an Environmentally Preferred Alternative, it is possible that the decision-~~

~~makers could balance the importance of each impact area differently and reach different conclusions when identifying the Agency Preferred Alternative in the Final EIS/EIR.~~

2.4.3 Comparison Among ~~Corridor~~ Action Alternatives

For each area of the Proposed Project where an alternative is considered, the comparison begins with a summary of the significant impacts that cannot be mitigated. Significant and unavoidable impacts of the Proposed Project and any significant and unavoidable impacts either created or eliminated by each alternative are listed under each segment. Highlighting these areas of significant impacts identified which alternatives would be capable of eliminating significant unavoidable environmental effects of the Proposed Project, and which alternatives would create new significant impacts. This comparison helps identify the environmentally preferred alternative while considering all environmental resource areas.

2.4.3.1 Summary of Significant and Unavoidable Impacts

Noise

The Proposed Project and every alternative in every segment would result in similar significant and unavoidable noise impacts during construction activities (listed below). These impacts would be short-term (occurring intermittently for up to 1 to 2 weeks) at several isolated rural residences within approximately 500 feet of the Proposed Project and alternative corridors.

- **Impact NOISE-1.** Result in a substantial temporary or periodic increase in ambient noise levels (above 5 dBA Leq) at sensitive receptor locations above levels existing without the Project.
- **Impact NOISE-3.** Result in noise levels that exceed local or federal noise regulations or guidelines.

Neither the Proposed Project nor any alternatives would result in significant and unavoidable impacts for resource areas other than noise within the North, Central, or South segments.

Significant and unavoidable impacts have been identified for Visual Resources (West of Cemetery Alternative only), Recreation (Proposed Project and alternatives), and Land Use (Proposed Project and alternatives) in the San Luis Segment, as described below.

Visual Resources

The Proposed Project would not result in significant and unavoidable impacts to visual resources in the San Luis Segment. However, the West of Cemetery Alternative would be prominently visible from a scenic overlook at the San Joaquin Valley National Cemetery, thereby resulting in the following significant and unavoidable impacts to Visual Resources:

- **Impact VIS-1.** Cause degradation of the foreground character or scenic quality of a visually important landscape.
- **Impact VIS-2.** Introduce dominant visual changes in the landscape that are seen by highly sensitive viewer locations such as community enhancement areas or locations with special scenic, historic, recreational, cultural, and/or natural qualities that have been recognized as such through legislation or some other official declaration.
- **Impact VIS-3.** Cause visual interruption that would dominate a unique viewshed or scenic view.

Recreation

The Proposed Project in the San Luis Segment would include construction of the new Los Banos West Substation, which would occupy up to 50 acres within the 150-acre Jasper Sears OHV Use Area. This would result in the following significant and unavoidable impacts to Recreation:

- **Impact REC-1.** Conflict with established, designated, or planned recreation areas or activities.
- **Impact REC-2.** Result in changes that alter or otherwise physically affect established, designated, or planned recreation areas or activities.
- **Impact REC-3.** Decrease accessibility to areas established, designated, or planned for recreation.

Each San Luis Segment alternative corridor would interconnect with the new Los Banos West Substation, thereby resulting in the same significant and unavoidable impacts as the Proposed Project.

Land Use

The Proposed Project in the San Luis Segment would include construction of the new Los Banos West Substation, which would occupy up to 50 acres within the 150-acre Jasper Sears OHV Use Area. This would result in the following significant and unavoidable impacts to Land Use:

- **Impact LU-1.** Conflict with applicable land use plans, policies, goals, or regulations.
- **Impact LU-4.** Conflict with State or federally established, designated, or reasonably foreseeable planned special use areas (e.g., recreation, wildlife management area, game management areas, waterfowl production areas, scientific and natural areas, wilderness areas, areas of critical environmental concern, etc.).

Each San Luis Segment alternative corridor would interconnect with the new Los Banos West Substation, thereby resulting in the same significant and unavoidable impacts as the Proposed Project.

2.4.3.2 Alternatives Comparison

Tables 2-8 through 2-11 present a comparison of the Proposed Project and ~~corridor~~ action alternatives in consideration of the most important impacts for every issue area within each corridor segment. The information in these tables is based on the conclusions presented in Chapter 4. Refer to the specific resource area analyses in Chapter 4 for additional information on affected resources, impact assessment methods, or the impacts.

North Segment (500-kV)

There are no alternatives to the Proposed Project in the North Segment. Therefore, the Proposed Project would be the environmentally preferred corridor.

Central Segment (500-kV)

In the Central Segment, the Patterson Pass Alternative would be the environmentally preferred corridor. The Proposed Project is approximately 1,000 feet closer to residences in this segment than the alternative Patterson Pass Alternative corridor; therefore, the Proposed Project would result in greater noise and visual resources impacts (refer to Table 2-8). Agricultural impacts also would be slightly greater than the Patterson Pass Alternative corridor. The Patterson Pass Road Alternative would result in greater impacts to biological resources than the Proposed Project.

Table 2-8. Comparison of the Proposed Project to Alternatives: Central Segment

Issue Area	Proposed Project	Patterson Pass Alternative
Agriculture	▪ Rank = 2 ▪ Permanent farmland impacts: 51.5 acres[1] ▪ Temporary farmland impacts: 34.8 acres	▪ **Preferred** ▪ Permanent farmland impacts: 46.9 acres ▪ Temporary farmland impacts: 29.3 acres
Air Quality and Climate Change	▪ No preference[2]	▪ No preference
Biological Resources	▪ **Preferred** ▪ Impacts fewer special-status plants ▪ Impacts more ephemeral creeks, freshwater marsh, and vernal pools	▪ Rank = 2 ▪ Impacts more special-status plants ▪ Impacts more wildflower fields, Great Valley riparian forest, intermittent creeks, and seasonal wetlands
Cultural Resources and Native American Consultation	▪ No preference	▪ No preference
Environmental Justice	▪ No preference	▪ No preference
Geology, Minerals, and Soils	▪ No preference	▪ No preference
Land Use	▪ No preference	▪ No preference
Noise	▪ Rank = 2 ▪ Closer to residences	▪ **Preferred** ▪ Farther from residences
Paleontological Resources	▪ No preference	▪ No preference
Public Health and Safety	▪ No preference	▪ No preference
Recreation	▪ No preference	▪ No preference
Socioeconomics	▪ No preference	▪ No preference
Traffic and Transportation	▪ No preference	▪ No preference
Visual Resources	▪ Rank = 2 ▪ Closer to residences	▪ **Preferred** ▪ Farther from residences and scenic highway (I-5)
Water Resources and Floodplains	▪ No preference	▪ No preference

1 - Farmland impacts are the sum of acreage potentially impacted within the Project study area and the Project corridor.
2 - No preference = impacts are similar or with negligible differences in intensity

San Luis Segment (500-kV)

In the San Luis Segment (500-kV), the Proposed Project would be the environmentally preferred corridor. The Proposed Project is the shortest route with the least ground disturbance. Therefore, it would result in fewer impacts to air quality, geology, paleontological resources, and water resources. The Proposed Project is furthest from the San Joaquin Valley National Cemetery, and therefore, would avoid noise and visual impacts to this sensitive resource. Additionally, it would impact the least amount of habitat for the federally and State endangered and State fully protected blunt-nosed leopard lizard.

Table 2-9. Comparison of the Proposed Project to Alternatives: San Luis Segment (500-kV)

Issue Area	Proposed Project	Butts Road Alternative	West of Cemetery Alternative
Agriculture	▪ Rank = 2 ▪ Permanent farmland impacts: 17.6 acres[1] ▪ Temporary farmland impacts: 7.2 acres	▪ **Preferred** ▪ Permanent farmland impacts: 12.5 acres ▪ Temporary farmland impacts: 4.6 acres	▪ Rank=3 ▪ Permanent farmland impacts: 19.8 acres ▪ Temporary farmland impacts: 3.6 acres

Table 2-9. Comparison of the Proposed Project to Alternatives: San Luis Segment (500-kV)

Issue Area	Proposed Project	Butts Road Alternative	West of Cemetery Alternative
Air Quality and Climate Change	▪ **Preferred** ▪ Least emissions and dust ▪ Shortest route requiring the use of construction equipment for the shortest duration	▪ Rank = 2 ▪ More emissions and dust than the Proposed Project ▪ Longer route than the Proposed Project requiring the use of construction equipment for longer duration	▪ Rank = 3 ▪ Most emissions and dust ▪ Longest route requiring the use of construction equipment for the longest duration
Biological Resources	▪ **Preferred** ▪ Least impacts to blunt-nosed leopard lizard habitat (federally endangered, State endangered, State fully protected) ▪ Most impacts to sensitive plant communities and jurisdictional resources ▪ Crosses two conservation easements	▪ Rank = 2 ▪ Greater impacts to blunt-nosed leopard lizard habitat ▪ Least impacts to sensitive plant communities and jurisdictional resources ▪ Crosses one conservation easement	▪ Rank = 3 ▪ Greater impacts to blunt-nosed leopard lizard habitat ▪ Less impacts to sensitive plant communities and jurisdictional resources ▪ Crosses one conservation easement
Cultural Resources and Native American Consultation	▪ No preference	▪ No preference	▪ No preference
Environmental Justice	▪ No preference	▪ No preference	▪ No preference
Geology, Minerals, and Soils	▪ **Preferred** ▪ Shortest route would result in the least soil disturbance	▪ Rank = 2 ▪ Longer route would result in more soil disturbance than the Proposed Project	▪ Rank = 3 ▪ Longest route would result in the most soil disturbance ▪ Steeper terrain would increase the potential for erosion and landslide
Land Use	▪ Rank = 2/No preference ▪ Impacts are the same as the Butts Road Alternative	▪ Rank = 2/No preference ▪ Impacts are the same as the Proposed Project	▪ **Preferred** ▪ Would avoid residences, recreation areas, and wildlife preserve lands
Noise	▪ **Preferred** ▪ Would expose the fewest sensitive receptors (residences, recreation areas) to construction noise	▪ Rank = 2 ▪ Would expose more sensitive receptors (residences, recreation areas, San Joaquin Valley National Cemetery) to construction noise	▪ Rank = 3 ▪ Would expose more sensitive receptors to construction noise ▪ Closest to San Joaquin Valley National Cemetery
Paleontological Resources	▪ **Preferred** ▪ Would require the least ground disturbance, and therefore, has the lowest potential for impacts to paleontological resources	▪ Rank = 2 ▪ Would require more ground disturbance, and therefore, has higher potential for impacts to paleontological resources than the Proposed Project	▪ Rank = 3 ▪ Would require the most ground disturbance, and therefore, has the highest potential for impacts to paleontological resources
Public Health and Safety	▪ No preference	▪ No preference	▪ No preference
Recreation	▪ **Preferred**	▪ Rank = 2/no preference ▪ Would overlap a greater portion of the Lower Cottonwood Creek Wildlife Area and the San Luis Reservoir State Recreation Area in comparison to the Proposed Project	▪ Rank = 2/no preference ▪ Impacts to recreation are the same as Butts Road Alternative
Socioeconomics	▪ No preference	▪ No preference	▪ No preference

Table 2-9. Comparison of the Proposed Project to Alternatives: San Luis Segment (500-kV)

Issue Area	Proposed Project	Butts Road Alternative	West of Cemetery Alternative
Traffic and Transportation	▪ No preference	▪ No preference	▪ No preference
Visual Resources	▪ **Preferred**	▪ Rank = 2 ▪ Would be more visible (closer) to the San Joaquin Valley National Cemetery and to recreation areas on the west side of the O'Neill Forebay than the Proposed Project	▪ Rank = 3 ▪ Would result in a significant and unavoidable (Class I) impact to viewers at the San Joaquin Valley National Cemetery & residences in this area
Water Resources and Floodplains	▪ **Preferred**	▪ Rank = 2 ▪ Longer route would result in more soil disturbance than the Proposed Project	▪ Rank = 3 ▪ Longest route would result in most soil disturbance ▪ Steeper terrain would increase the potential for erosion and potentially result in greater impacts to water quality

1 - Farmland impacts are the sum of acreage potentially impacted within the Project study area and the Project corridor.

San Luis Segment (70-kV)

In the San Luis Segment (70-kV), the Proposed Project would be the environmentally preferred corridor. The Proposed Project and alternative are the same length, have the same length of new access roads, and have the same number of support structures. Therefore, impacts are similar and there is no preference between corridors for most issue areas. However, the Proposed Project would result in fewer impacts to habitat for federally and State-listed species including San Joaquin kit fox, California tiger salamander, and blunt-nosed leopard lizard. Additionally, the Proposed Project would be farther from the San Joaquin Valley National Cemetery, thereby resulting in fewer land use, noise, and visual resources impacts than the West of O'Neill Forebay 70-kV Alternative.

Table 2-10. Comparison of the Proposed Project to Alternatives: San Luis Segment (70-kV)

Issue Area	Proposed Project	West of O'Neill Forebay 70-kV Alternative
Agriculture	▪ No preference ▪ Permanent farmland impacts: 0.3 acre[1] ▪ Temporary farmland impacts: 3.3 acres	▪ No preference ▪ Permanent farmland impacts: 0.3 acre ▪ Temporary farmland impacts: 8.0 acres
Air Quality and Climate Change	▪ No preference	▪ No preference
Biological Resources	▪ **Preferred** ▪ Fewer impacts to habitat for federally and State-listed species including San Joaquin kit fox, California tiger salamander, and blunt-nosed leopard lizard ▪ Fewer impacts to non-native grassland, seasonal wetland, and northern claypan vernal pool habitat ▪ Greater impacts to Great Valley cottonwood riparian forest and coastal and valley freshwater marsh habitat ▪ Would be located in the O'Neill Forebay Wildlife Area ▪ Not likely to cross conservation easements	▪ Rank = 2 ▪ Greater impacts to habitat for federally and State-listed species including San Joaquin kit fox, California tiger salamander, and blunt-nosed leopard lizard ▪ Greater impacts to non-native grassland, seasonal wetland, and northern claypan vernal pool habitat ▪ Fewer impacts to Great Valley cottonwood riparian forest and coastal and valley freshwater marsh habitat ▪ Would be located in the Lower Cottonwood Creek Wildlife Area ▪ Crosses two conservation easements
Cultural Resources and Native American Consultation	▪ No preference	▪ No preference

Table 2-10. Comparison of the Proposed Project to Alternatives: San Luis Segment (70-kV)

Issue Area	Proposed Project	West of O'Neill Forebay 70-kV Alternative
Environmental Justice	▪ No preference	▪ No preference
Geology, Minerals, and Soils	▪ No preference	▪ No preference
Land Use	▪ **Preferred** ▪ Would encroach into the Village of Santa Nella and the O'Neill Forebay Wildlife Area	▪ Rank = 2 ▪ Would encroach into recreation areas and the San Joaquin Valley National Cemetery
Noise	▪ **Preferred**	▪ Rank = 2 ▪ Would be closer to, and therefore result in, greater exposure of sensitive receptors (San Luis Reservoir State Recreation Area, San Joaquin Valley National Cemetery) to construction noise
Paleontological Resources	▪ No preference	▪ No preference
Public Health and Safety	▪ No preference	▪ No preference
Recreation	▪ **Preferred**	▪ Rank = 2 ▪ Would overlap a greater portion of the Lower Cottonwood Creek Wildlife Area and the San Luis Reservoir State Recreation Area
Socioeconomics	▪ No preference	▪ No preference
Traffic and Transportation	▪ No preference	▪ No preference
Visual Resources	▪ **Preferred**	▪ Rank = 2 ▪ Would be more visible (closer) to the San Joaquin Valley National Cemetery and to recreation areas on the west side of the O'Neill Forebay
Water Resources and Floodplains	▪ No preference	▪ No preference

1 - Farmland impacts are the sum of acreage potentially impacted within the Project study area and the Project corridor.

South Segment

In the South Segment, the San Luis to Dos Amigos Alternative would be the environmentally preferred corridor. The Proposed Project and the San Luis to Dos Amigos Alternative are adjacent, have the same length of easements and new access roads, and have the same number of support structures. Therefore, impacts are similar and there is no preference between corridors for most issue areas. However, the San Luis to Dos Amigos Alternative would have slightly fewer impacts to agricultural land. It would also be farther from more residences than the Proposed Project, thereby resulting in less construction noise impacts.

The Billy Wright Road Alternative would be the least environmentally preferred alternative in this segment because it is the longest and would result in the most ground disturbance. Additionally, it would cross the Path of the Padres Trail, resulting in greater recreation impacts than the Proposed Project or the San Luis to Dos Amigos Alternative.

Table 2-11. Comparison of the Proposed Project to Alternatives: South Segment

Issue Area	Proposed Project	San Luis to Dos Amigos Alternative	Billy Wright Road Alternative
Agriculture	▪ Rank = 3 ▪ Permanent farmland impacts: 31.2 acres[1] ▪ Temporary farmland impacts: 20.6 acres	▪ **Preferred** ▪ Permanent farmland impacts: 13.4 acres ▪ Temporary farmland impacts: 18.3 acres	▪ Rank=2 ▪ Permanent farmland impacts: 19.1 acres ▪ Temporary farmland impacts: 8.2 acres

Table 2-11. Comparison of the Proposed Project to Alternatives: South Segment

Issue Area	Proposed Project	San Luis to Dos Amigos Alternative	Billy Wright Road Alternative
Air Quality and Climate Change	▪ **Preferred**/no preference	▪ **Preferred**/no preference ▪ Impacts are the same as the Proposed Project	▪ **Preferred**/no preference ▪ Impacts are the same as the Proposed Project
Biological Resources	▪ **Preferred**/no preference	▪ **Preferred**/no preference ▪ Impacts are the same as the Proposed Project	▪ Rank = 2 ▪ Greater impacts to blunt-nosed leopard lizard habitat ▪ Greater impacts to jurisdictional resources
Cultural Resources and Native American Consultation	▪ No preference	▪ No preference	▪ No preference
Environmental Justice	▪ No preference	▪ No preference	▪ No preference
Geology, Minerals, and Soils	▪ **Preferred**/no preference	▪ **Preferred**/no preference ▪ Impacts are the same as the Proposed Project	▪ Rank = 2 ▪ Longer route would result in more soil disturbance than the Proposed Project
Land Use	▪ No preference	▪ No preference	▪ No preference
Noise	▪ Rank = 3 ▪ Would result in noise impacts to the most residences	▪ Rank = 2 ▪ Would reduce noise impacts for 2-3 residences and increase impacts at one residence in comparison to the Proposed Project	▪ **Preferred**/no preference
Paleontological Resources	▪ **Preferred**/no preference	▪ **Preferred**/no preference ▪ Impacts are the same as the Proposed Project	▪ **Preferred**/no preference ▪ Impacts are the same as the Proposed Project
Public Health and Safety	▪ No preference	▪ No preference	▪ No preference
Recreation	▪ **Preferred**/no preference	▪ **Preferred**/no preference ▪ Impacts are the same as the Proposed Project	▪ Rank=2 ▪ Overlaps the Path of the Padres Trail and a greater portion of the Los Banos Creek Reservoir
Socioeconomics	▪ No preference	▪ No preference	▪ No preference
Traffic and Transportation	▪ No preference	▪ No preference	▪ No preference
Visual Resources	▪ **Preferred**/no preference	▪ **Preferred**/no preference ▪ Impacts are the same as the Proposed Project	▪ Rank = 2 ▪ 8 more structures, 4 more acres of land disturbed
Water Resources and Floodplains	▪ **Preferred**/no preference	▪ **Preferred**/no preference ▪ Impacts are the same as the Proposed Project	▪ Rank = 2 ▪ Longer route would result in more soil disturbance than the Proposed Project

1 - Farmland impacts are the sum of acreage potentially impacted within the Project study area and the Project corridor.

Conclusion

Based on the conclusions of Chapter 4, as summarized in Tables 2-8 through 2-11 above, the **Environmentally Preferred ~~Corridor~~ Action Alternative** is composed of (refer to Figure 2-7):

- North Segment – ~~Preferred Corridor~~ Proposed Project
- Central Segment – Patterson Pass Road Alternative
- San Luis Segment (500-kV) – ~~Preferred Corridor~~ Proposed Project
- San Luis Segment (70-kV) – ~~Preferred Corridor~~ Proposed Project
- South Segment – San Luis to Dos Amigos Alternative

~~2.4.4 Environmentally Preferred Corridor Alternative vs. No Action/No Project Alternative~~

~~Under the No Action/No Project Alternative, construction of the San Luis Transmission Project would not occur. Western would arrange for transmission service for the San Luis Unit from the CAISO using existing electric infrastructure.~~

~~As there would be no new adverse direct environmental impacts under this alternative, it would be preferable to the Environmentally Preferred Corridor Alternative. Therefore, the No Action/No Project Alternative is the **Environmentally Preferred Alternative.**~~

~~As detailed in Section 1.2, Reclamation's estimated transmission costs under the No Action/No Project Alternative (i.e., the CAISO Tariff) would be so expensive as to render this alternative infeasible. Further, the No Action/No Project Alternative is considered infeasible because it would not achieve the purpose and need or basic project objectives.~~

~~2.4.5 Environmentally Preferred Action Alternative~~

~~If the environmentally preferred alternative is the No Action/No Project Alternative, CEQA requires identification of an environmentally preferred action alternative among the other alternatives. The **Environmentally Preferred Action Alternative** is the Environmentally Preferred Corridor Alternative as described in Section 2.4.4 and illustrated in Figure 2-7.~~

2.4.4 Agency Preferred Alternative

Determining the Agency Preferred Alternative requires that Western balance many factors with the Project's purpose and need. It is the alternative that Western believes would fulfill its statutory mission and responsibilities, giving consideration to economic, environmental, technical, and other factors. As described above, the No Project/No Action Alternative is the Environmentally Preferred Alternative because it would avoid any adverse direct, indirect, or cumulative environmental impacts; however, it would not achieve the purpose and need or basic Project objectives. The Environmentally Preferred Action Alternative is composed of several segments, as listed in the preceding section. After analysis of public comments and further internal review of the EIS/EIR, Western has determined that its Agency Preferred Alternative is the same as the Environmentally Preferred Action Alternative in the Northern and San Luis (500-kV and 70-kV) segments.

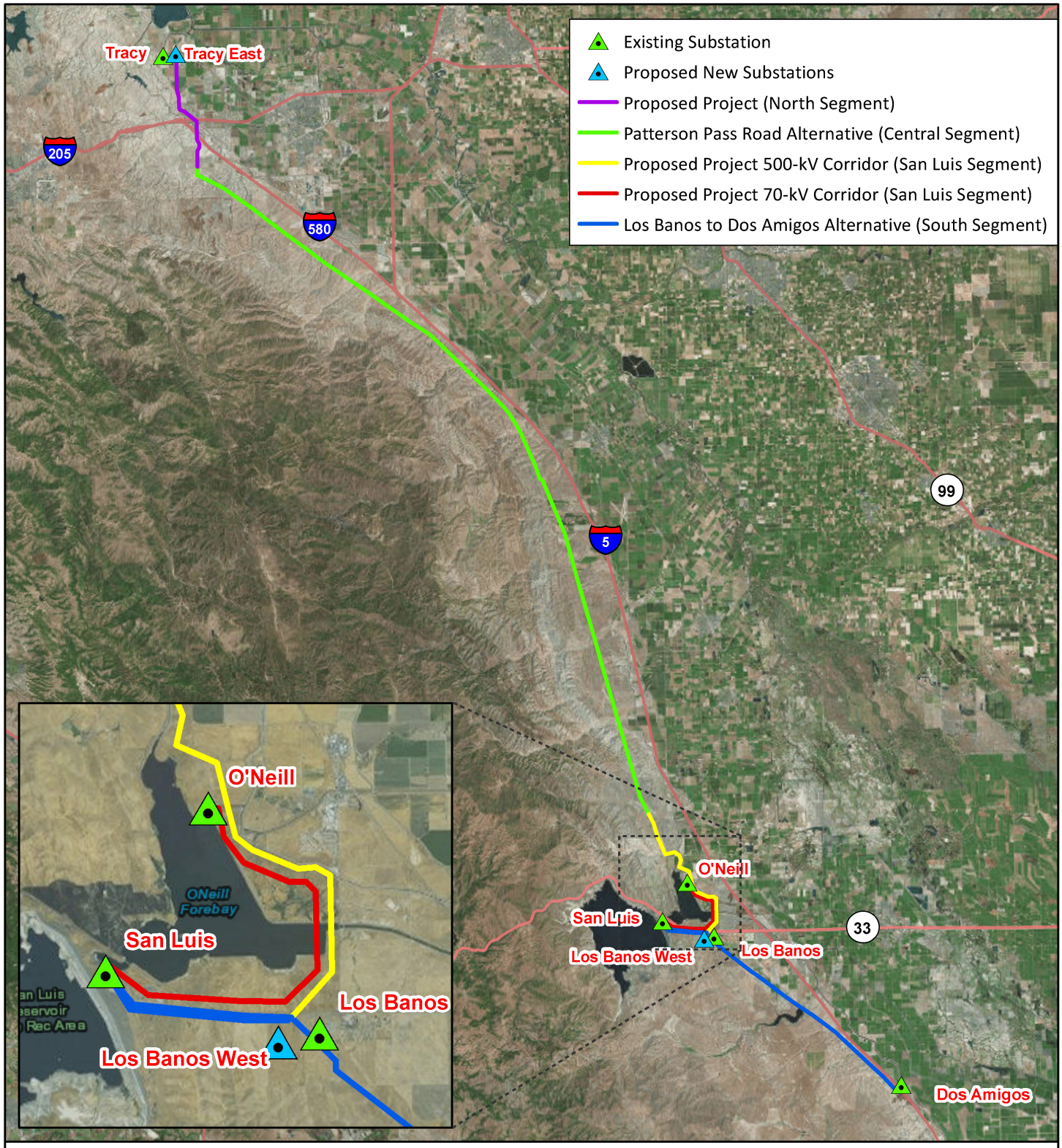


Figure 2-7

Environmentally Preferred ~~Corridor~~ Action Alternative

Source: WAPA SNR, Aspen EG, ESRI

0 5 10 Miles

In the Central Segment, the Proposed Project is the agency preferred corridor. Although it would be closer to residences and have sight increases in the associated visual and temporary noise impacts, it would have less of an impact on biological resources. In particular, it would impact fewer special-status plant species. Additionally, it would require fewer crossings of the existing high voltage transmission lines, which would increase reliability by providing more space between circuits.

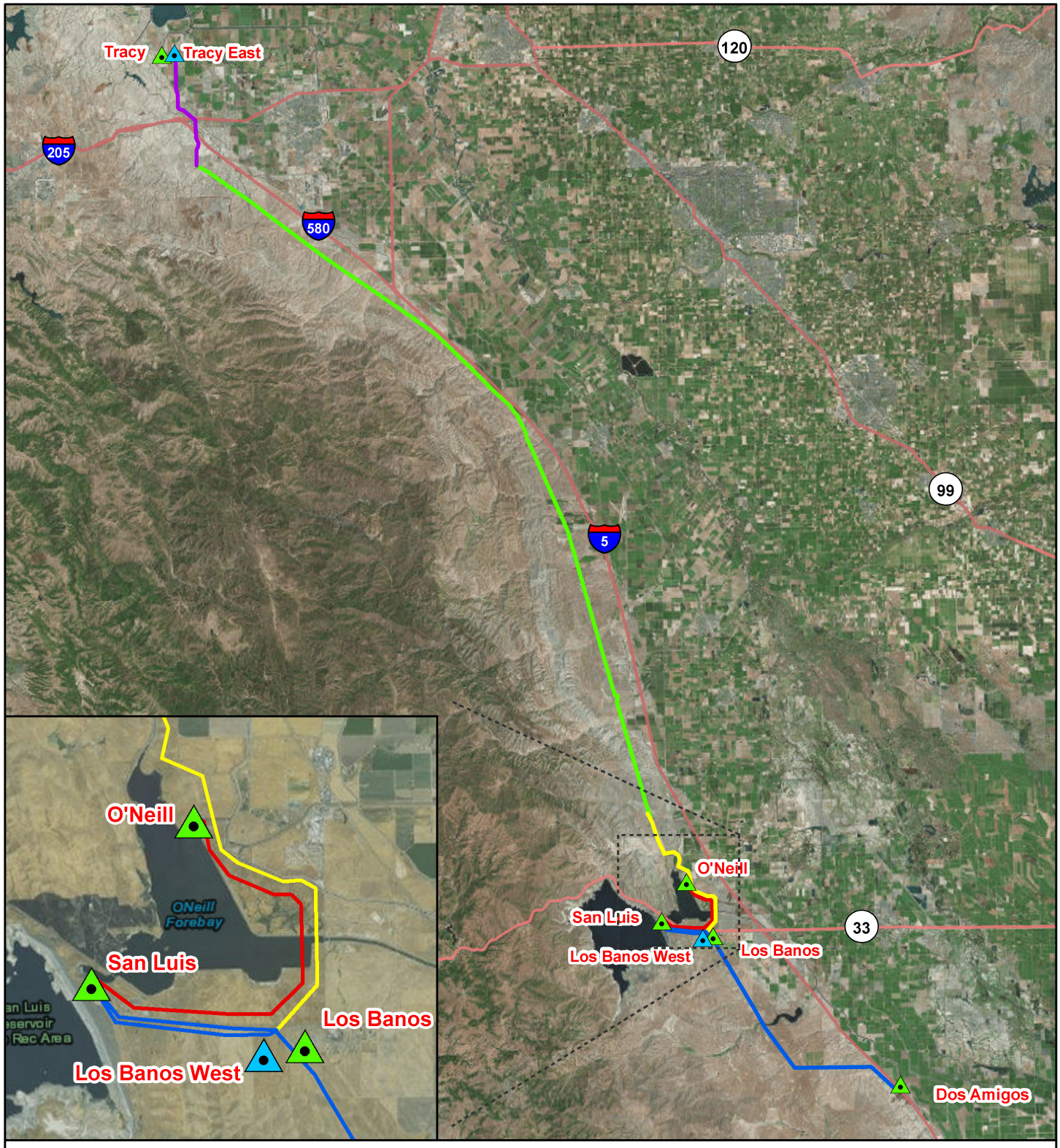
In the Southern Segment, the Billy Wright Road Alternative is the agency preferred corridor. Although it would have greater recreation impacts by crossing the Path of the Padres Trail and slightly greater soil disturbance due to its longer length, it would avoid conflicts with the Wright Solar Park. At the time the Notice of Preparation and Notice of Intent for this EIS/EIR were published in November 2013, which set the baseline for analysis of environmental impacts in the Draft EIS/EIR, the Wright Solar Park was still early in its entitlement phase (the Project's NOP was issued in October 2013). Western is aware that the Project is now fully permitted and expected to begin construction in 2016.

In summary, the Agency Preferred Alternative is composed of (refer to Figure 2-8):

- North Segment – Proposed Project
- Central Segment – Proposed Project
- San Luis Segment (500-kV) – Proposed Project
- San Luis Segment (70-kV) – Proposed Project
- South Segment – Billy Wright Road Alternative

Table 2-12. Alternatives Comparison Summary

Environmentally Preferred Alternative	No Action/No Project Alternative
Environmentally Preferred Action Alternative (Figure 2-7)	■ North Segment – Proposed Project ■ Central Segment – Patterson Pass Road Alternative ■ San Luis Segment (500-kV) – Proposed Project ■ San Luis Segment (70-kV) – Proposed Project ■ South Segment – San Luis to Dos Amigos Alternative
Agency Preferred Alternative (Figure 2-8)	■ North Segment – Proposed Project ■ Central Segment – Proposed Project ■ San Luis Segment (500-kV) – Proposed Project ■ San Luis Segment (70-kV) – Proposed Project ■ South Segment – Billy Wright Road Alternative



Western AREA POWER ADMINISTRATION

- Existing Substation
- Proposed New Substations
- Proposed Project (North Segment)
- Proposed Project (Central Segment)
- Proposed Project 500-kV Corridor (San Luis Segment)
- Proposed Project 70-kV Corridor (San Luis Segment)
- Billy Wright Road Alternative (South Segment)

0 5 10 Miles

Figure 2-8

Agency Preferred Alternative

Source: WAPA SNR, Aspen EG, ESRI