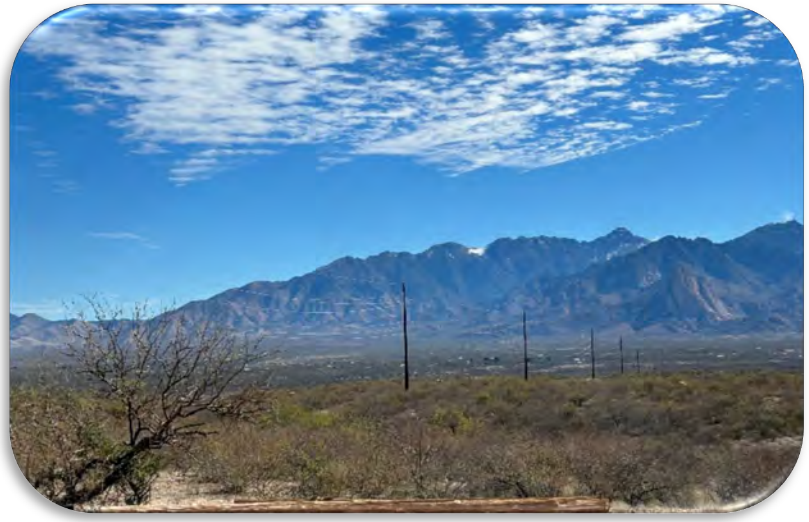
Santa Cruz Reliability Project North

PROJECT UPDATE PRESENTATION

CLARK BRYNER – MANAGER, SITING, OUTREACH AND ENGAGEMENT



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May 2025

Agenda

- Santa Cruz Reliability Project – Video
- Need and Benefits
- Phase 1 – Santa Cruz Reliability Project North
- Update – Planning and Siting Process
- Project Schedule
- Public Participation
- Q&A Session

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Santa Cruz Reliability Project
Click to Play Video

Need and Benefits

- Improve the reliability and resiliency of the electrical transmission system serving Santa Cruz County.
- Maintain and strengthen reliability for Santa Cruz County and its residents, businesses and industries, including hospitals, schools, ports of entry and federal facilities.
- Reduce and eliminate the potential for a major and sustained outage in Santa Cruz County.
- Meet current and future energy needs without impacting service to existing customer.
- Support maintenance and other upgrades, allowing work to be performed without interrupting system operations.

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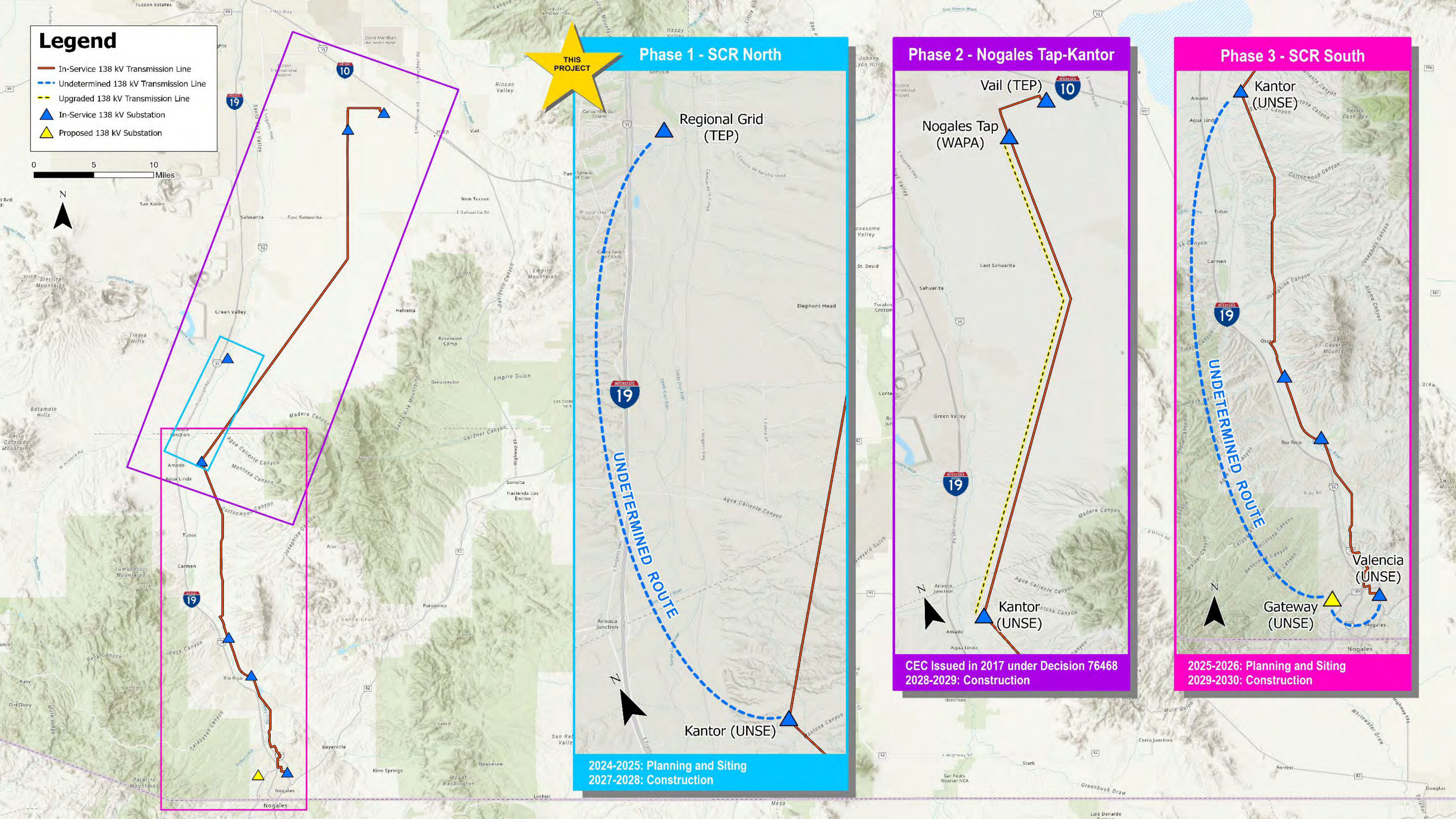
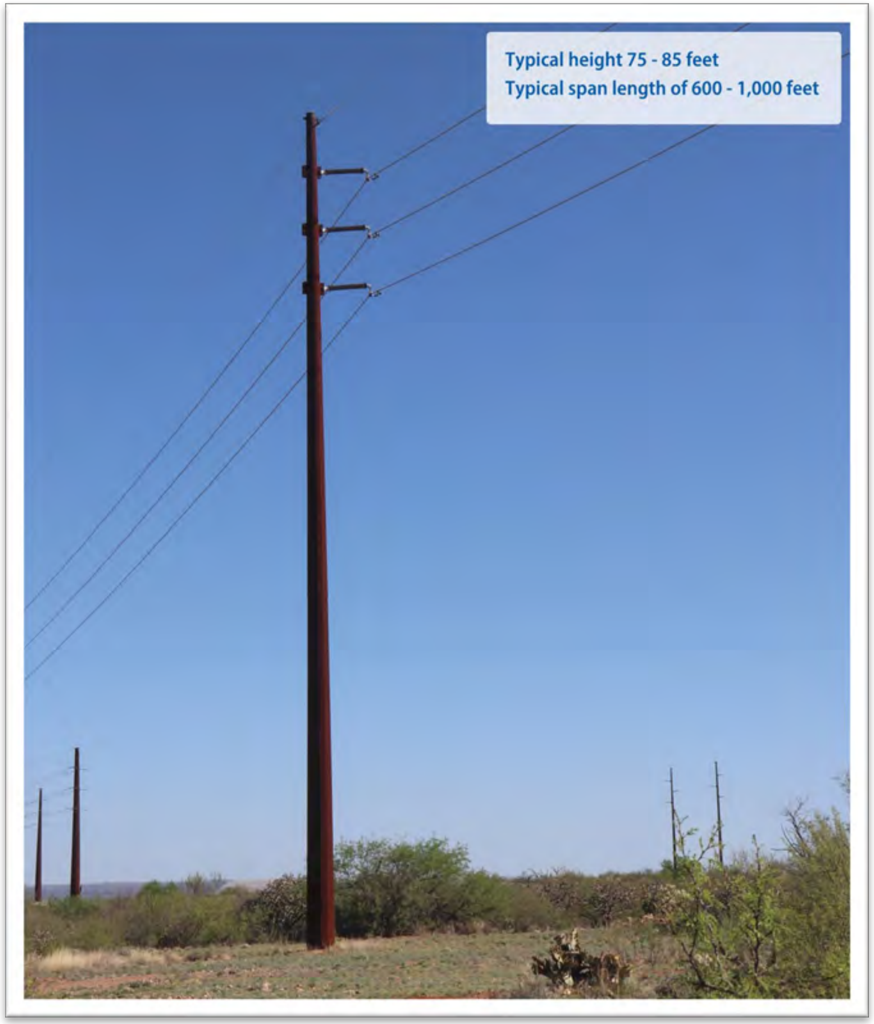


Legend
In-Service 138 kV Transmission Line
Undetermined 138 kV Transmission Line
Upgraded 138 kV Transmission Line
In-Service 138 kV Substation
Proposed 138 kV Substation
0 5 10 Miles
N
THIS PROJECT
Phase 1 - SCR North
Regional Grid (TEP)
UNDETERMINED ROUTE
Kantor (UNSE)
2024-2025: Planning and Siting
2027-2028: Construction
Phase 2 - Nogales Tap-Kantor
Vail (TEP)
Nogales Tap (WAPA)
Kantor (UNSE)
CEC Issued in 2017 under Decision 76468
2028-2029: Construction
Phase 3 - SCR South
Kantor (UNSE)
UNDETERMINED ROUTE
Valencia (UNSE)
Gateway (UNSE)
2025-2026: Planning and Siting
2029-2030: Construction

Santa Cruz Reliability Project North (Phase 1)
138kV Transmission Line

Example Pole Structure

- Tubular, Weathering Steel Monopoles
- Typical height 75 – 85 feet
- Typical span 600 – 1,000 feet



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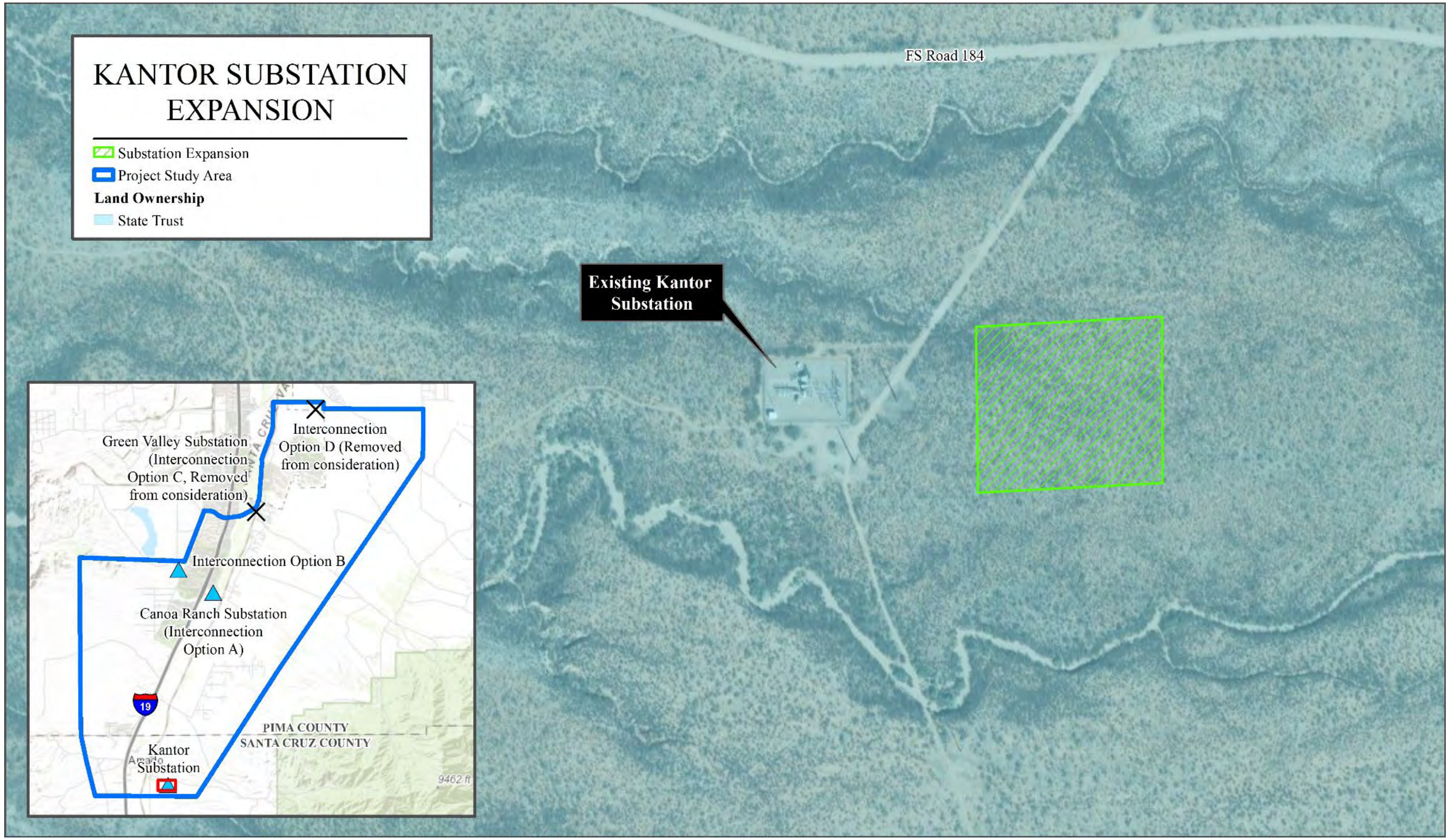
Santa Cruz Reliability Project North (Phase 1)
Kantor Substation Planned Expansion



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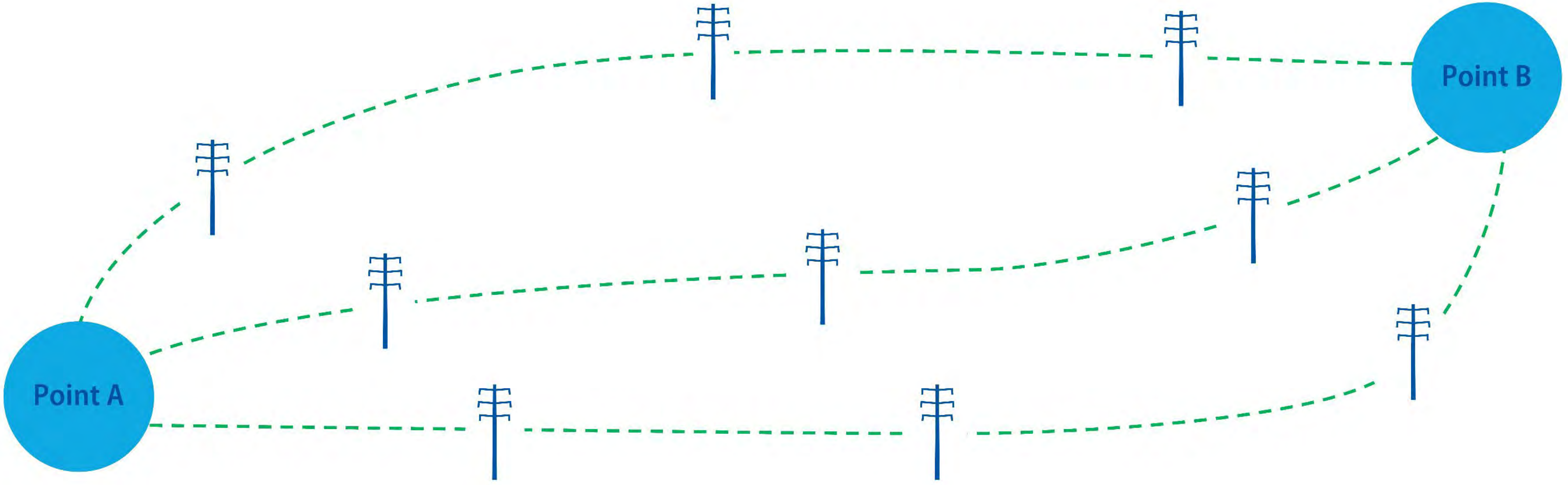
What is Siting?



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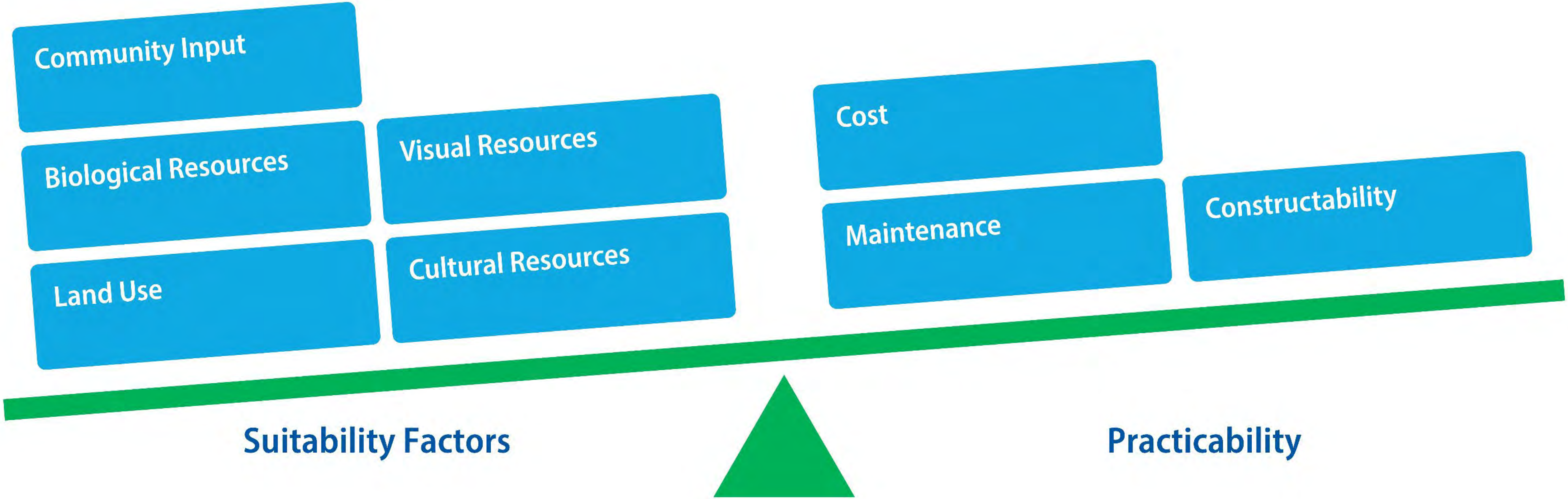
Project Route Development and Evaluation



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Planning and Siting Process Flowchart

Phase 1: **Pre-Analysis**

- Conduct Field Visits
- Develop Study Area
- Identify Opportunities and Constraints
- Conduct Public and Stakeholder Outreach
- Develop Preliminary Segments

Phase 2: **Data Inventory**

- Conduct Research and Collect Data

Phase 3: **Suitability Assessment**

- Develop Suitability Models
- Conduct Suitability Assessment
- Field Review
- Conduct Public and Stakeholder Outreach
- Refine Segments

★ We Are Here

Phase 4: **Compatibility Analysis**

- Conduct Compatibility Analysis
- Develop Route Alternatives
- Field Review

Phase 5: **Concept Evaluation**

- Conduct Public and Stakeholder Outreach
- Identify Preferred Route
- Submit CEC Application
- Public Notification and Hearing

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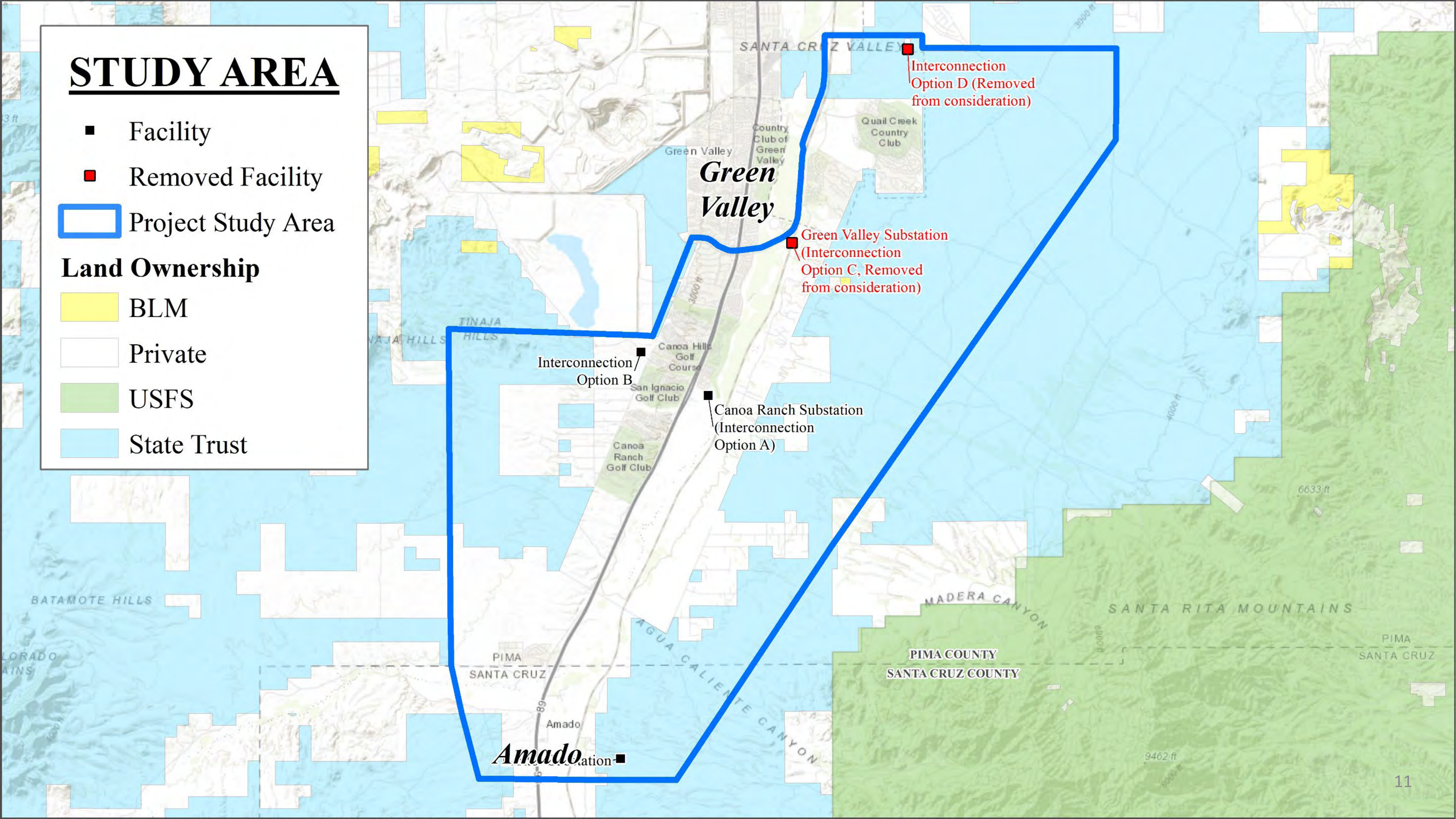
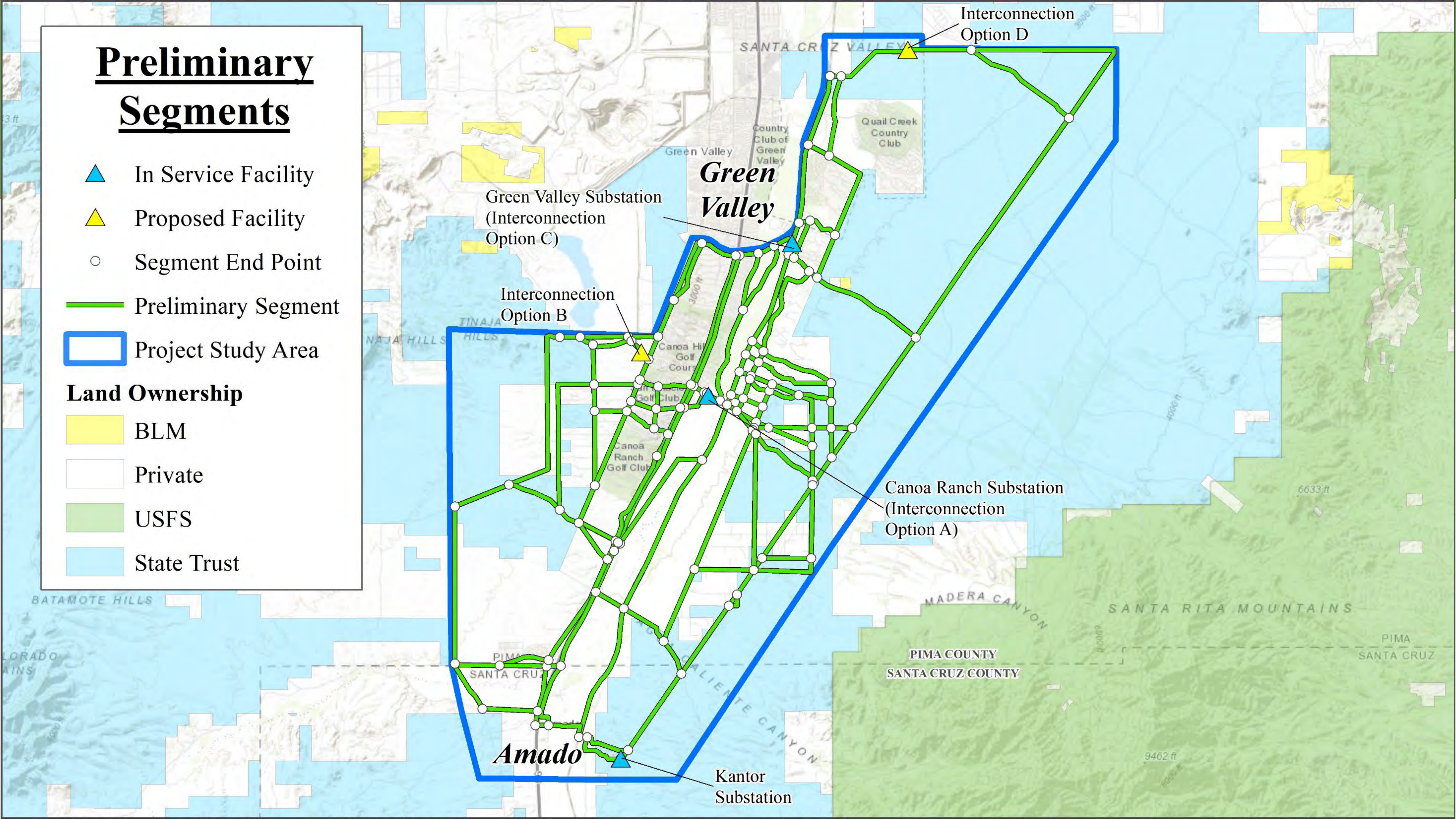

STUDY AREA
Facility
Removed Facility
Project Study Area
Land Ownership
BLM
Private
USFS
State Trust
Green Valley
Amado
Interconnection Option D (Removed from consideration)
Green Valley Substation (Interconnection Option C, Removed from consideration)
Interconnection Option B
Canoa Ranch Substation (Interconnection Option A)
SANTA CRUZ VALLEY
Quail Creek Country Club
Country Club of Green Valley
Green Valley
Canoa Hills Golf Course
San Ignacio Golf Club
Canoa Ranch Golf Club
TINAJA HILLS
BATAMOTE HILLS
AGUA CALIENTE CANYON
MADERA CANYON
SANTA RITA MOUNTAINS
PIMA COUNTY
SANTA CRUZ COUNTY
PIMA
SANTA CRUZ
Amado
6633 ft
9462 ft



Preliminary Segments
In Service Facility
Proposed Facility
Segment End Point
Preliminary Segment
Project Study Area
Land Ownership
BLM
Private
USFS
State Trust
Interconnection Option D
Green Valley Substation (Interconnection Option C)
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6633 ft
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Suitability Assessment Methodology

Criteria Models

- Existing Plans
- Biological Resources
- Noise and Communication
- Cultural and Historic Resources
- Visual Resources
- Total Environment
- Existing and Future Residential
- Construction and Maintenance

Composite Models

- Balanced Compatibility Model
- Environmentally Preferred Model
- Construction and Maintenance Preferred Model
- Public, Stakeholder, and Agency Preferred Model

Suitability Assessment

- Highest Suitability Path
- Apply Constraints
- Visual Comparison

Field Verification

- Ground Truthing

Refined Segments

- Eliminate Less Suitable Segments
- Carried Forward for Further Evaluation

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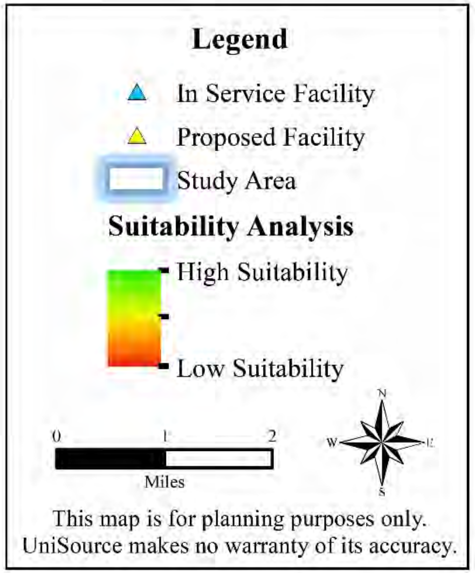
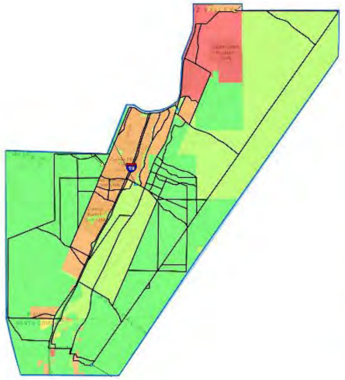
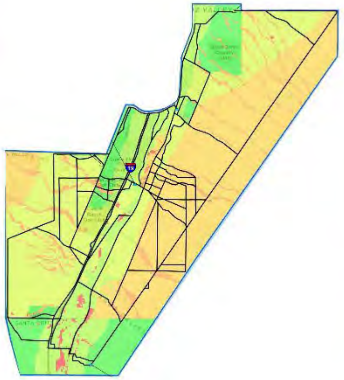
Suitability Assessment
Criteria Models

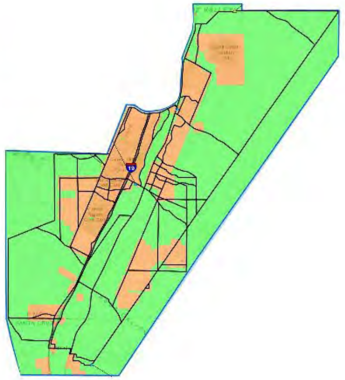




Existing Plans

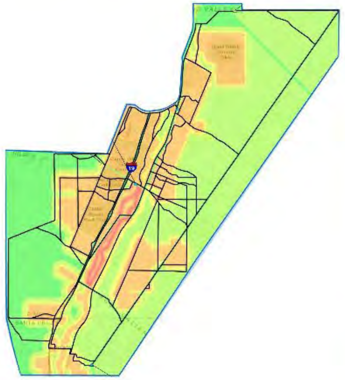


Biological Resources

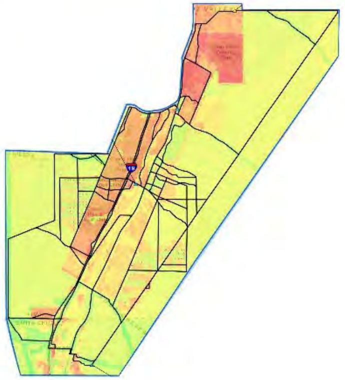


Noise & Communication

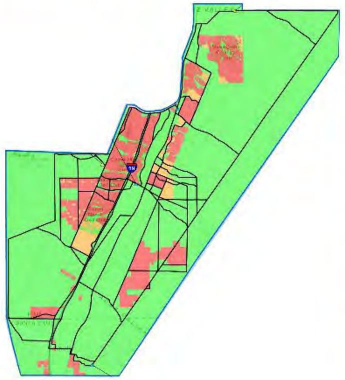
Cultural & Historical Resources



Visual Resources



Total Environment



Existing and Future Residential Properties Adjacent to Transmission Lines

Construction & Maintenance

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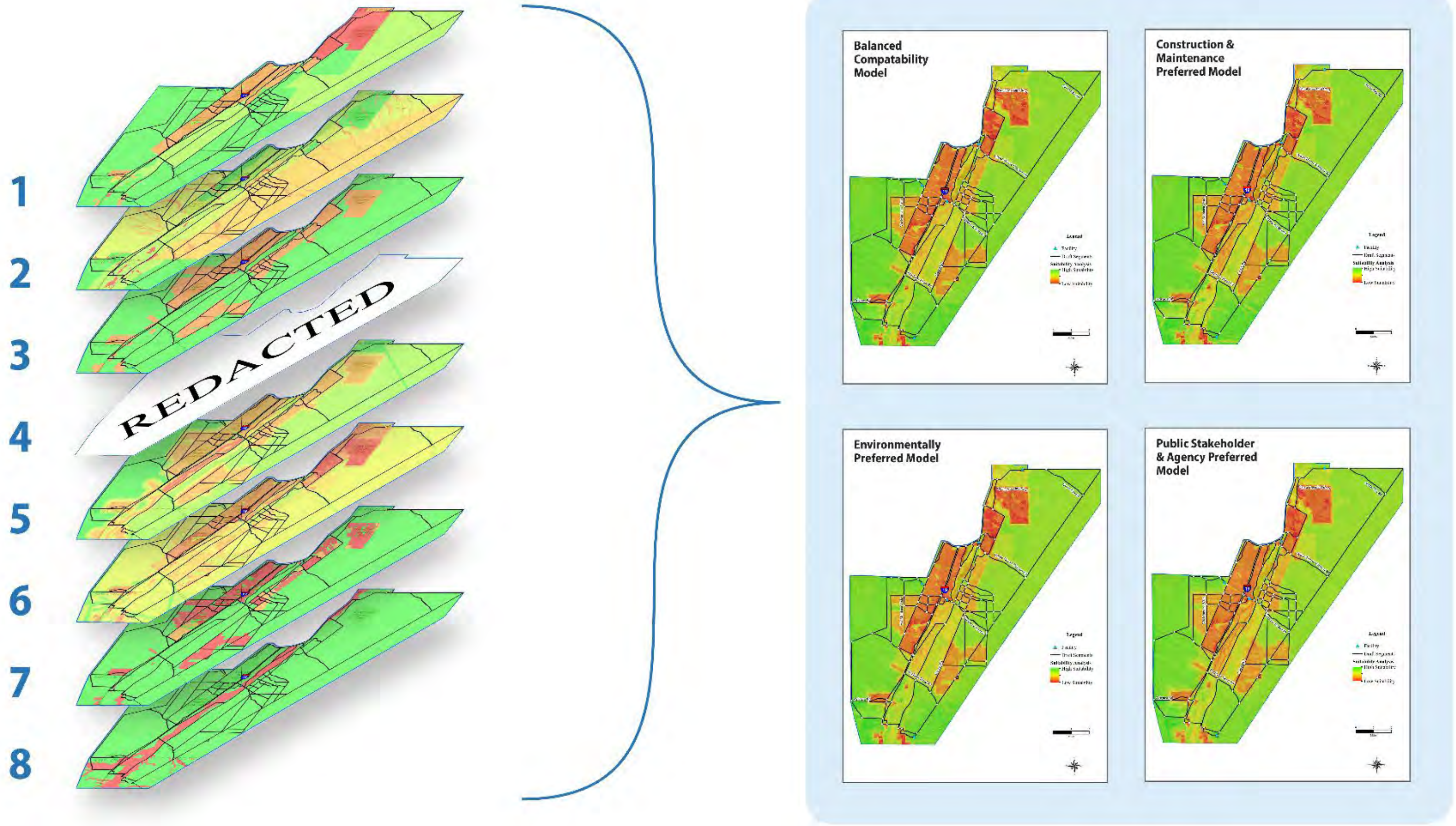
Suitability Assessment
Composite Models

Criteria 1: Existing Plans
Criteria 2: Biological Resources
Criteria 3: Noise & Communication
Criteria 4: Cultural and Historical Resources
Criteria 5: Visual Resources
Criteria 6: Total Environment
Criteria 7: Existing and Future Residential Properties Adjacent to Transmission Lines
Criteria 8: Construction & Maintenance



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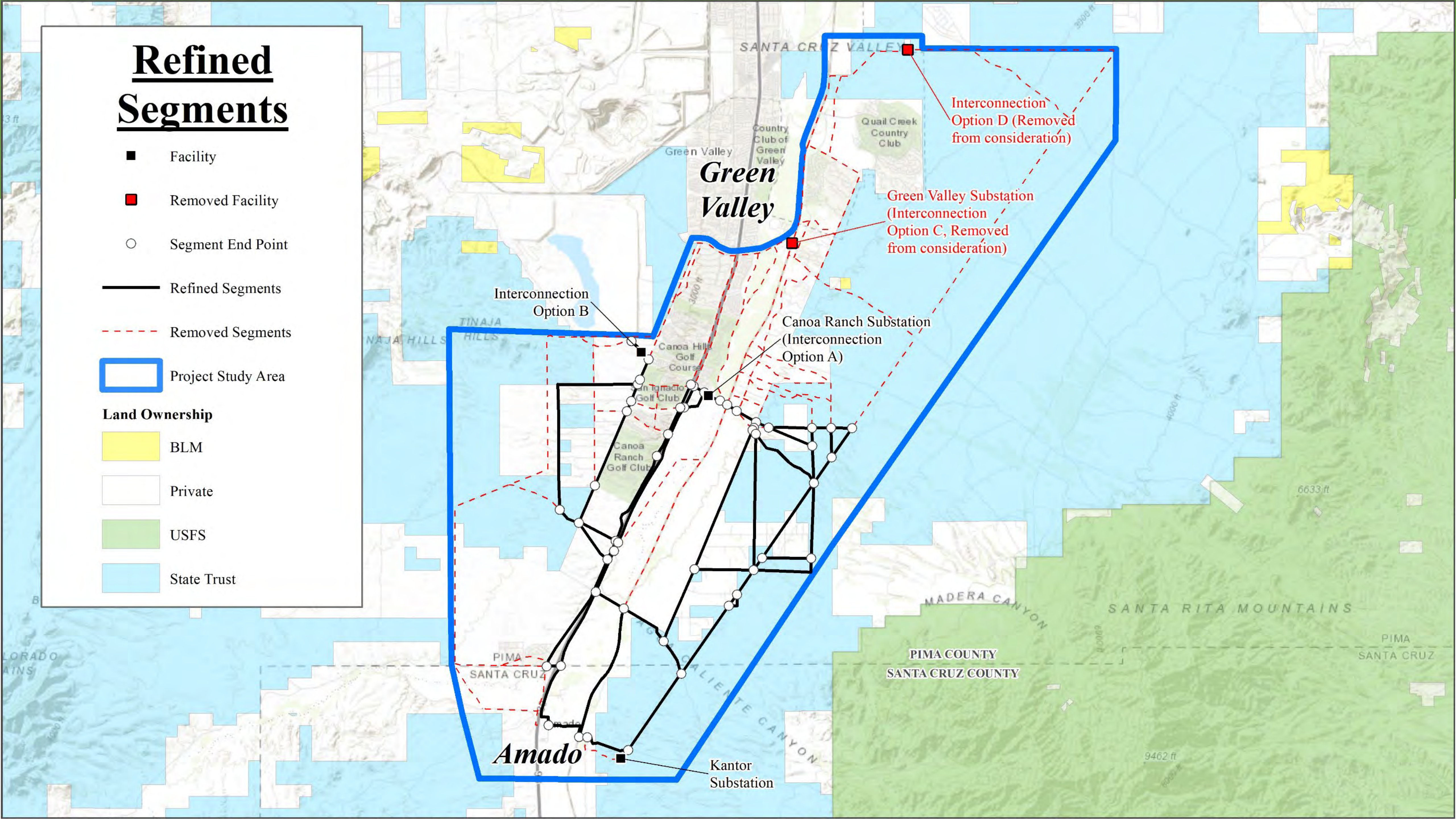

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SANTA CRUZ COUNTY
TINAJA HILLS

Next Steps

EVALUATION CRITERIA

1. Cost and potential impact on customer rates
2. Impact on existing and planned land uses
3. Proximity to residential areas
4. Impact on Fish, wildlife, and plants, including special status species and their habitat
5. Proximity to sensitive noise receptors (schools, hospitals, assisted living and daycare facilities)
6. Proximity to licensed communication sites
7. Impact on designated scenic areas
8. Impact on mountain views from residential areas
9. Impact on historic and archaeological sites
10. Overall environmental impact
11. Ability to construct, and operate and maintain facilities
12. Compliance with state, county or city ordinances
13. Public health, welfare, and safety

Phase 1:
Pre-Analy

- Conduct Fiel
- Develop Stu
- Identify Opp and Constra
- Conduct Pub Stakeholder
- Develop Pre Segments

3:
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- Suitability
- Suitability ent
- iew
- Public and der Outreach
- egments

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Project Schedule*

Under Arizona law, certain transmission line configurations require a Certificate of Environmental Compatibility (CEC) before construction and operation along an approved route.

- Q3 ‘23-Q2 ‘24 – Transmission Line Planning and Siting
- Fall 2025 – CEC Application Submittal
- Fall 2025 – Arizona Power Plant and Transmission Line Siting Committee Hearing
- Q1 2026 – Arizona Corporation Commission (ACC) Open Meeting
- 2028 – Phase 1: Project in Service
- 2029 – Phase 2: Project in Service
- 2030 – Phase 3: Project in Service

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* Target schedule, subject to change

Public Participation

- Fill out an online comment form at: ueasz.com/santa-cruz-reliability-north
- Send comments via email to: scrnorth@uesaz.com
- Call (520) 917-6635 and leave a voicemail message
- Mail a letter with comments to:

  ATTN: Santa Cruz Reliability North
  P.O. Box 711
  Mail Stop CB200
  Tucson, AZ 85701-0711

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Q&A Session

Your input is important to us!

For questions or comments, we ask that you please raise your hand, and we will answer your questions in an orderly fashion.

THANK YOU!

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