



Western  
Area Power  
Administration

# 10-Year Capital Plan

## Active Construction Meeting

2019-2028



April 3rd, 2019

Desert Southwest Region  
Phoenix, AZ

# WELCOME



# AGENDA

1. Welcome
2. Introductions
3. Active Construction Projects Requiring Additional Funding
4. Active Construction Projects Review
5. Seed Project Update
6. Work For Others
7. TYP Strategic Pivot Status
8. TYP Next Steps / Action Item Recap
9. Vegetation Management



# ACTIVE CONSTRUCTION PROJECTS REQUIRING ADDITIONAL FUNDING

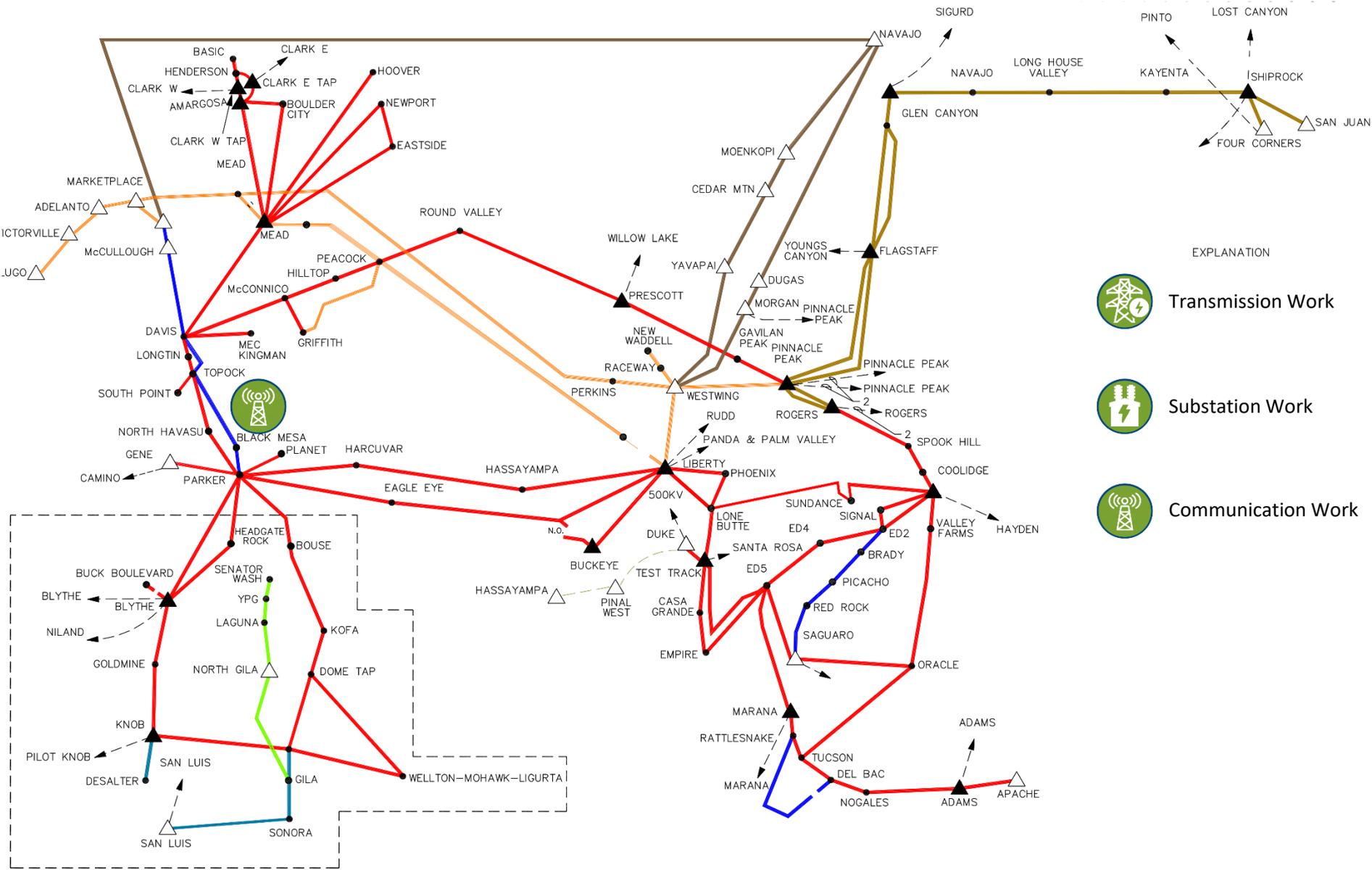


# Additional Funds Required

- Two active construction projects have been identified requiring additional funds
- WAPA is currently in the process of gathering all relevant information in regards to the additional costs
- The material to be covered today will provide an overview of the two projects in question
- We understand that there may be a lot of questions and discussions regarding these projects
- For the sake of time today, WAPA can put together a sub-meeting to discuss these projects in more detail if requested



# Crossman Peak



## EXPLANATION



Transmission Work



Substation Work



Communication Work



# Crossman Peak

## Project Status

- Fort Mohave has requested a government-to-government meeting with BLM/WAPA management; schedule conflicts have been encountered over the last 6 months
- As of today no government-to-government meeting has been successfully scheduled
- Land owner with pre-existing leases exists over proposed microwave site; Legal issues and lease agreement still needs to be resolved
- Project was placed on hold in December of 2018

## Identified Risks

- Due to scale of forecasted budget increase, WAPA will be exploring potential alternatives to the construction of the facility at Crossman Peak. During the original study it was identified as the only feasible solution but that finding will be tested

## Project Schedule

PROJECT MILESTONE	STATUS	DATE
Seed Funded	N/A	N/A
Approved for Funding	Completed	Q4 2016
Design Completed	Projected	TBD
Construction Mobilization	Projected	TBD
In-Service / Energization	Projected	TBD
Financial Closeout	Projected	TBD



# Crossman Peak – Funding Analysis

## Total Budget Comparison

- Original prepayment budget: **\$4,525,000**
- Cost to date: \$1,373,156
- Remaining funds : \$3,151,844
- Proposed additional funds required :\$3,775,000
- **New Project Prepayment Budget: \$8,300,000**

## Unisource Overhead Distributions Costs

- Original overhead distribution line budget: \$2,200,000
  - Includes design costs : \$200,000
- Actual overhead distribution line cost estimate : **\$4,616,466**



# Crossman Peak – Funding Analysis

## Environmental Assessment Cost Factors

- Original lands budget : **\$332,500**
- Cost to date: \$339,699
- Actual cost estimate : **\$750,000**
  - Fort Mohave Tribal monitors costs: \$150,000 (3 months @ \$50k) included in total cost above

## Lands appraisal and land cost factor

- Original appraisal budget: **\$250,000**
- Actual appraisal cost estimate: **\$450,000**
- Original right-of-way/land budget: **\$100,000**
- Actual right-of-way/land cost estimate: **\$183,271**
  - No land owner agreement or offer letter sent due to EA completion
  - No AZ State permit application due to EA completion



# Crossman Peak – Funding Analysis

## Design costs and building factors:

- Original WAPA design budget:**\$350,000**
- Actual WAPA design cost estimate:**\$657,763**
- Original building construction budget:**\$600,000**
- Actual building construction cost estimate:**\$950,000**
  - Due to helicopter and terrain
  - Building design in 4 to 6 segments due to shipping weight of helicopter



# Crossman Peak

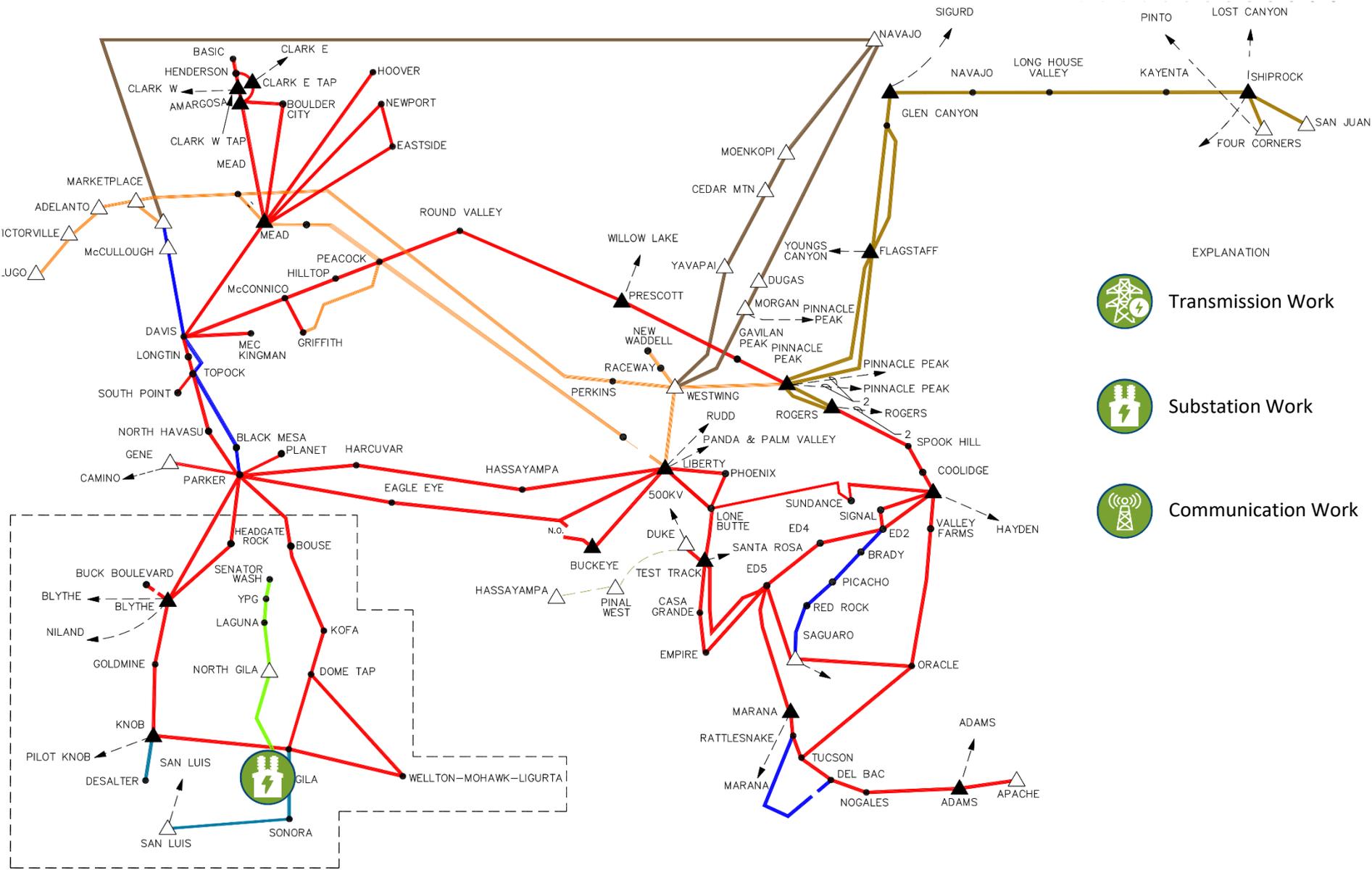


FUNDING TYPE	ORIGINAL BUDGET	BUDGET ADJUSTMENT 2017	BUDGET ADJUSTMENT 2018	CURRENT BUDGET	COST TO DATE	REMAINING FUNDS	ADDITIONAL FUNDS REQUIRED	PROPOSED NEW BUDGET
Prepayment	\$ 4,525,000	\$ -	\$ -	\$ 4,525,000	\$ 1,373,156	\$ 3,151,844	\$ 3,775,000	\$ 8,300,000
Appropriations	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTAL</b>	<b>\$ 4,525,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 4,525,000</b>	<b>\$ 1,373,156</b>	<b>\$ 3,151,844</b>	<b>\$ 3,775,000</b>	<b>\$ 8,300,000</b>

*\*Cost = All Executions, Obligations, & Commitments Through 2/28/19*



# Gila Substation 161-kV Rebuild



- EXPLANATION
-  Transmission Work
  -  Substation Work
  -  Communication Work



# Gila Substation 161-kV Rebuild

## Project Status

- The new building should be completed in July 2019, and construction on the remainder of the project will continue through July 2020
- The construction contract came in >\$2M above the estimate (~\$10M for winning bid)
- Additional planning and earthwork were uncovered beyond the original scope to prevent runoff into the adjacent canal; the bulk of the earthwork has been completed
- There has been an increase in the cost of steel since the original estimate was performed
- For these reasons, the project will require an additional \$3.27M to be completed

## Identified Risks

- The project will continue through the fiscal year while remaining within the 10% threshold of budget overrun and additional funds for completion of the project will be sought in December 2019

## Project Schedule

PROJECT MILESTONE	STATUS	DATE
Seed Funded	N/A	N/A
Approved for Funding	Completed	Q4 2014
Design Completed	Completed	Q2 2018
Construction Mobilization	Completed	Q4 2018
In-Service / Energization	Projected	Q2 2020
Financial Closeout	Projected	Q4 2020



# Gila Substation 161-kV Rebuild

## Total Budget Comparison

- Current project budget : **\$18,994,500**
- Cost to date: \$19,006,214
- Remaining Funds : -\$11,714
- Proposed funds :\$3,296,183
- **New project budget: \$22,296,183**

## Other cost factors

- Additional earthwork required re-design of site
- Government furnished equipment was higher cost than anticipated
- Administrative costs associated with project delay

## Construction contract cost factors

- Original construction contract budget: \$7,956,800
- Actual construction cost: \$10,297,178
- Difference of \$2,340,378
- Significant impacts:
  - Earthwork to address runoff issues into WMIDD Canal
  - Market value for steel increased
  - One year delay on project



# Gila Substation 161-kV Rebuild



FUNDING TYPE	ORIGINAL BUDGET	BUDGET ADJUSTMENT 2015	BUDGET ADJUSTMENT 2016	BUDGET ADJUSTMENT 2017	BUDGET ADJUSTMENT 2018	CURRENT BUDGET	COST TO DATE	REMAINING FUNDS	ADDITIONAL FUNDS REQUIRED	PROPOSED NEW BUDGET
Prepayment	\$ 12,000,000	\$ -	\$ (1,075,597)	\$ 6,299,184	\$ (111,826)	\$ 17,111,761	\$ 17,123,475	\$ (11,714)	\$ 3,296,183	\$ 20,407,944
Appropriations	\$ -	\$ -	\$ 1,075,597	\$ 695,316	\$ 111,826	\$ 1,882,739	\$ 1,882,739	\$ -	\$ -	\$ 1,882,739
<b>TOTAL</b>	<b>\$ 12,000,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,994,500</b>	<b>\$ -</b>	<b>\$ 18,994,500</b>	<b>\$ 19,006,214</b>	<b>\$ (11,714)</b>	<b>\$ 3,296,183</b>	<b>\$ 22,290,683</b>

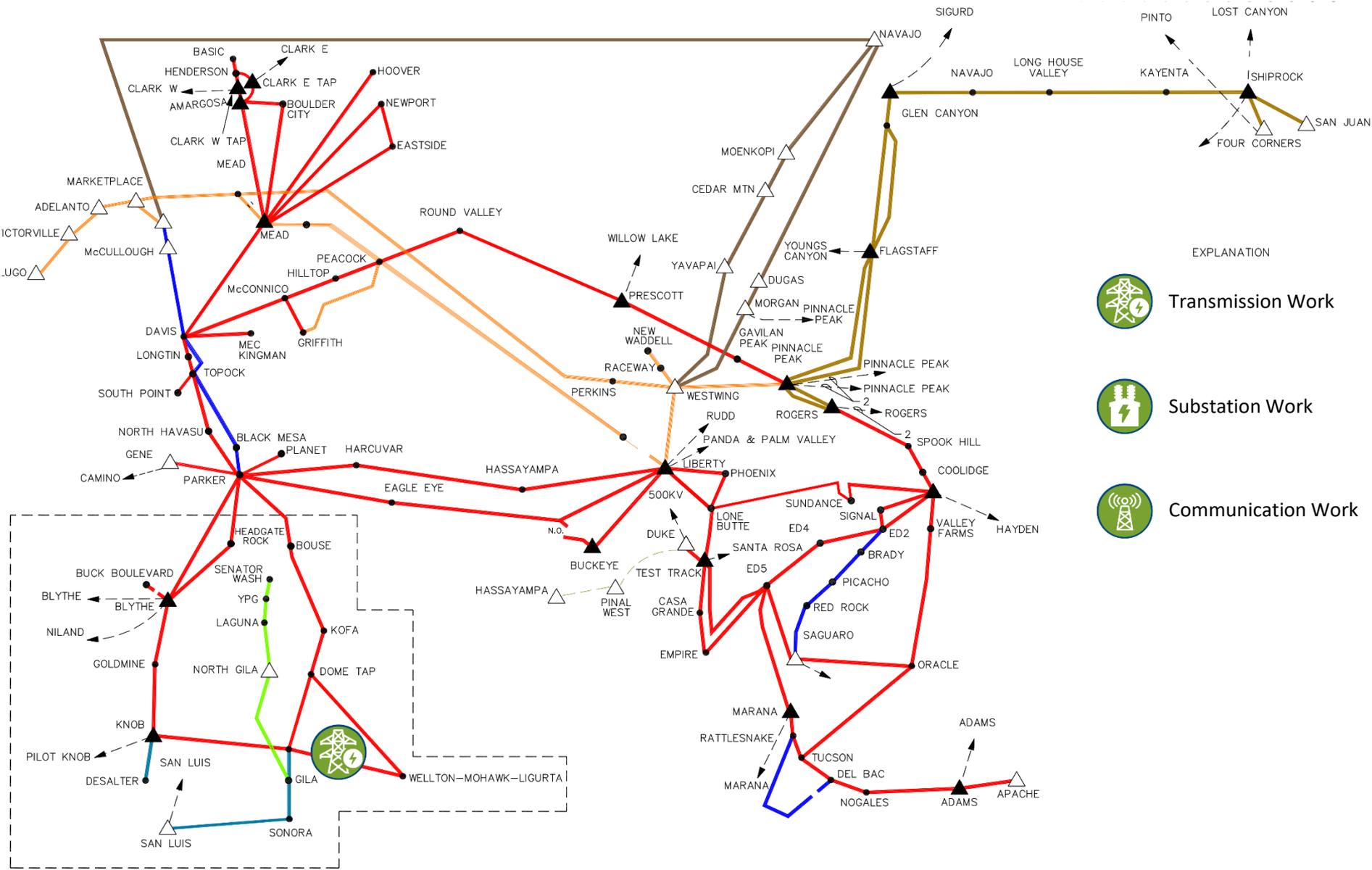
*\*Cost = All Executions, Obligations, & Commitments Through 2/28/19*



# ACTIVE CONSTRUCTION PROJECTS REVIEW



# Gila-Wellton Mohawk I-8 Crossing



# Gila-Wellton Mohawk I-8 Crossing

## Project Status

- The I-8 project was the first seed funded construction project by WAPA
- The micro-pile foundation installation, although new to WAPA, proceeded without issue thanks to a well defined specification and design package
- Drilling of the direct-embedded foundations proved challenging, but the work was completed slightly ahead of schedule
- The project as a whole is progressing on schedule and in-line with the prepayment budget

## Identified Risks

- None to report

PROJECT MILESTONE	STATUS	DATE
Seed Funded	Completed	Q4 2016
Approved for Funding	Completed	Q4 2017
Design Completed	Completed	Q1 2018
Construction Mobilization	Completed	Q3 2018
In-Service / Energization	Projected	Q2 2019
Financial Closeout	Projected	Q4 2019



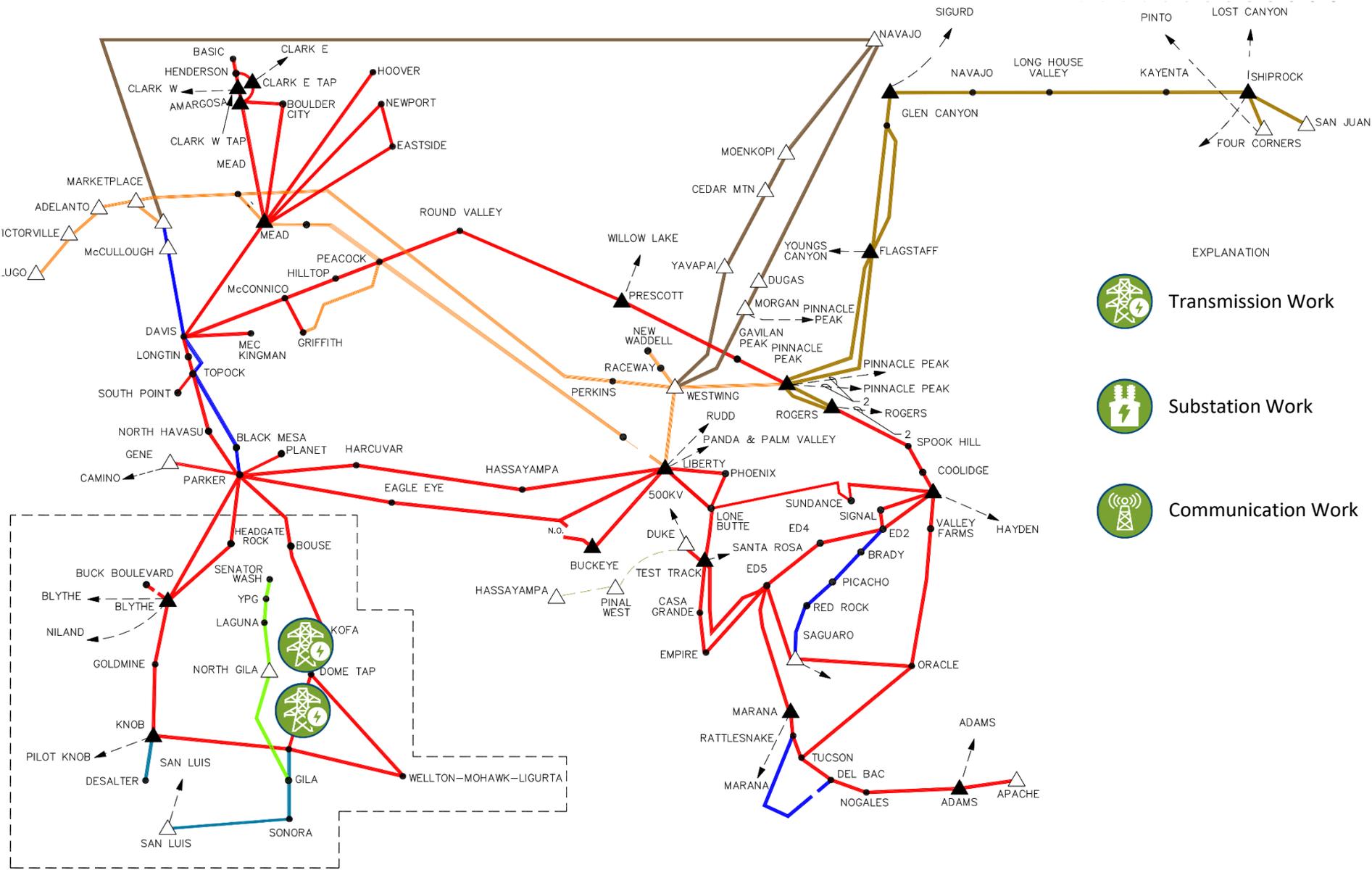
# Gila-Wellton Mohawk I-8 Crossing



FUNDING TYPE	ORIGINAL BUDGET	BUDGET ADJUSTMENT 2018	BUDGET ADJUSTMENT 2019	CURRENT BUDGET	COST TO DATE	REMAINING FUNDS	ADDITIONAL FUNDS REQUIRED
Prepayment	\$ 7,247,137	\$ -	\$ -	\$ 7,247,137	\$ 6,766,034	\$ 481,103	\$ -
Appropriations	\$ 273,517	\$ -	\$ -	\$ 273,517	\$ 273,517	\$ -	\$ -
<b>TOTAL</b>	<b>\$ 7,520,654</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 7,520,654</b>	<b>\$ 7,039,551</b>	<b>\$ 481,103</b>	<b>\$ -</b>
*Cost = All Executions, Obligations, & Commitments Through 2/28/19							



# Gila-Dome Tap and Kofa-Dome Tap 161-kV Rebuild



# Gila-Dome Tap and Kofa-Dome Tap 161-kV Rebuild

## Project Status

- Gila-Dome Tap and Kofa – Dome Tap are seed funded projects that were voted on December 2018
- Work continues on pre-construction activities
- The environmental review was completed in 2018 and the design was completed March 2019
- Construction is expected to begin on schedule

## Identified Risks

- None to report

## Conceptual Schedule Gila

PROJECT MILESTONE	STATUS	DATE
Seed Funded	Completed	Q4 2017
Approved for Funding	Completed	Q4 2018
Design Completed	Completed	Q1 2019
Construction Mobilization	Projected	Q4 2019
In-Service / Energization	Projected	Q2 2020
Financial Closeout	Projected	Q4 2020

## Conceptual Schedule Kofa

PROJECT MILESTONE	STATUS	DATE
Seed Funded	Completed	Q4 2017
Approved for Funding	Completed	Q4 2018
Design Completed	Completed	Q4 2019
Construction Mobilization	Projected	Q4 2020
In-Service / Energization	Projected	Q4 2021
Financial Closeout	Projected	Q2 2022



# Gila-Dome Tap and Kofa-Dome Tap 161-kV Rebuild



## Gila – Dome Tap Budget

FUNDING TYPE	ORIGINAL BUDGET	BUDGET ADJUSTMENT 2019	CURRENT BUDGET	COST TO DATE	REMAINING FUNDS	ADDITIONAL FUNDS REQUIRED
Prepayment	\$ 7,130,000	\$ -	\$ 7,130,000	\$ 255,094	\$ 6,874,906	\$ -
Appropriations	\$ 500,000	\$ -	\$ 500,000	\$ 236,211	\$ 263,789	\$ -
<b>TOTAL</b>	<b>\$ 7,630,000</b>	<b>\$ -</b>	<b>\$ 7,630,000</b>	<b>\$ 491,305</b>	<b>\$ 7,138,695</b>	<b>\$ -</b>

*\*Cost = All Executions, Obligations, & Commitments Through 2/28/19*

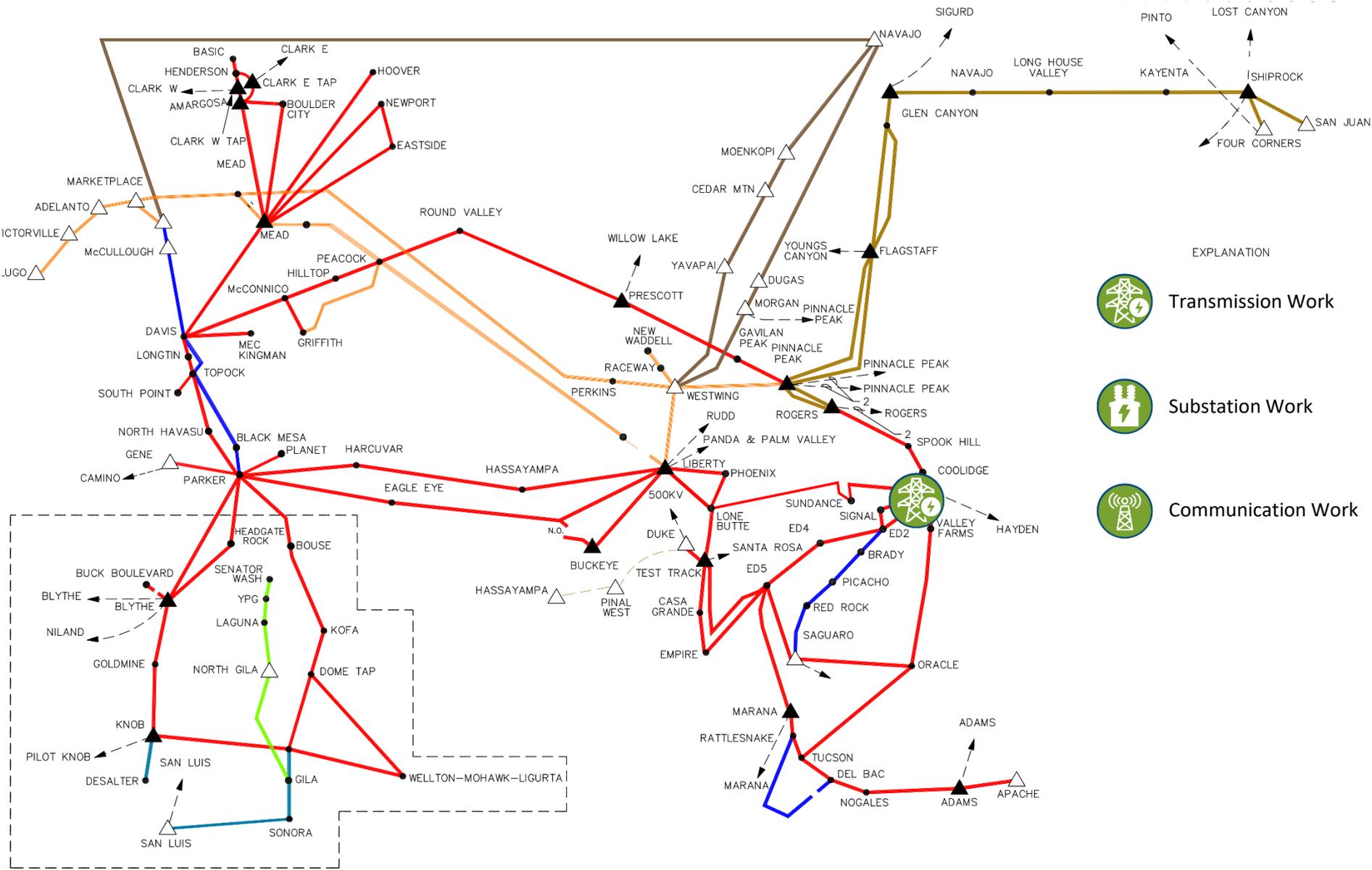
## Kofa – Dome Tap Budget

FUNDING TYPE	ORIGINAL BUDGET	BUDGET ADJUSTMENT 2019	CURRENT BUDGET	COST TO DATE	REMAINING FUNDS	ADDITIONAL FUNDS REQUIRED
Prepayment	\$ 4,830,000	\$ -	\$ 4,830,000	\$ -	\$ 4,830,000	\$ -
Appropriations	\$ 500,000	\$ -	\$ 500,000	\$ 224,958	\$ 275,042	\$ -
<b>TOTAL</b>	<b>\$ 5,330,000</b>	<b>\$ -</b>	<b>\$ 5,330,000</b>	<b>\$ 224,958</b>	<b>\$ 5,105,042</b>	<b>\$ -</b>

*\*Cost = All Executions, Obligations, & Commitments Through 2/28/19*



# Coolidge – Valley Farms 115-kV Rebuild



## EXPLANATION

-  Transmission Work
-  Substation Work
-  Communication Work



# Coolidge – Valley Farms 115-kV Rebuild

## Project Status

- Outage for construction has been scheduled for December 2<sup>nd</sup>, 2019
- Outage will run through May 30<sup>th</sup>, 2020
- Procurement in progress, with an anticipated award date June 2019
- No Government Furnished Equipment will be provided on this project, all materials are contractor furnished
- An additional month was added to the project schedule due to coordination delays during the 2018 end of year holiday season for a transmission and railroad crossing

## Identified Risks

- Competing outage requirements are possible and may present future delays

## Project Schedule

PROJECT MILESTONE	STATUS	DATE
Seed Funded	Completed	Q1 2018
Approved for Funding	Completed	Q4 2018
Design Completed	Completed	Q1 2019
Construction Mobilization	Projected	Q4 2019
In-Service / Energization	Projected	Q2 2020
Financial Closeout	Projected	Q4 2020



# Coolidge – Valley Farms 115-kV Rebuild

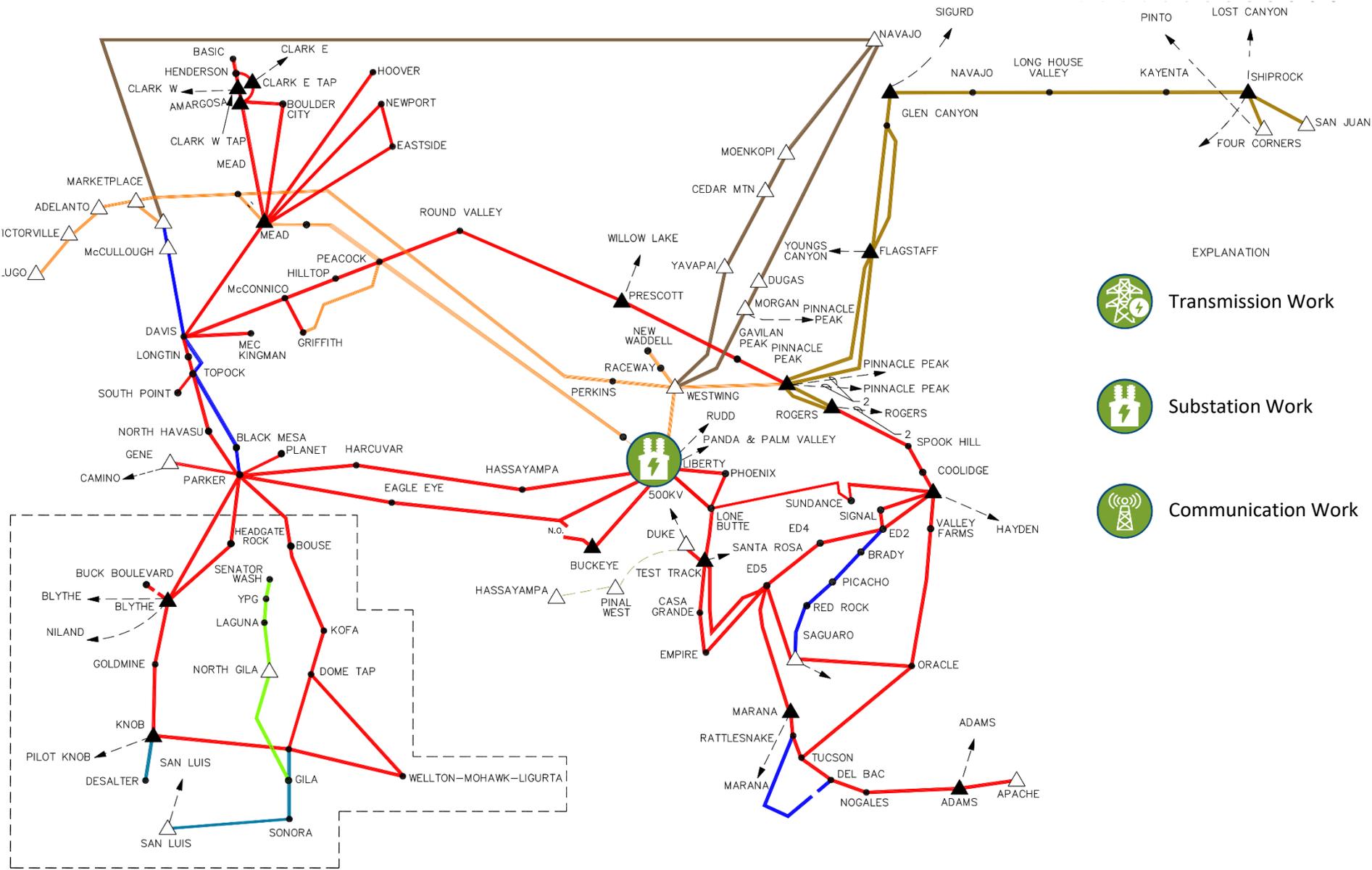


FUNDING TYPE	ORIGINAL BUDGET	BUDGET ADJUSTMENT 2019	CURRENT BUDGET	COST TO DATE	REMAINING FUNDS	ADDITIONAL FUNDS REQUIRED
Prepayment	\$ 2,305,000	\$ -	\$ 2,305,000	\$ 207,844	\$ 2,097,156	\$ -
Appropriations	\$ 1,045,000	\$ -	\$ 1,045,000	\$ -	\$ 1,045,000	\$ -
<b>TOTAL</b>	<b>\$3,350,000</b>	<b>\$ -</b>	<b>\$ 3,350,000</b>	<b>\$ 207,844</b>	<b>\$ 3,142,156</b>	<b>\$ -</b>

*\*Cost = All Executions, Obligations, & Commitments Through 2/28/19*



# Liberty Series Capacitor Bank



EXPLANATION

-  Transmission Work
-  Substation Work
-  Communication Work



# Liberty Series Capacitor Bank

## Project Status

- Testing on the capacitor bank was completed in 2018
- Construction contract award was subject to a protest, which extended the timeline of the project by approximately 8 months
- Due to issues with birds nesting on and fouling hardware in the yard, removal of the existing capacitor bank has been rolled into the project
- Bird irritant dispensers have been rolled into the project to ensure the longevity of the new capacitor bank being installed
- Removal of the existing capacitor bank foundations will not be included on this project

## Identified Risks

- Limited outage window to complete work

## Project Schedule

PROJECT MILESTONE	STATUS	DATE
Seed Funded	N/A	N/A
Approved for Funding	Completed	Q4 2016
Design Completed	Completed	Q1 2018
Construction Mobilization	Projected	Q4 2018
In-Service / Energization	Projected	Q4 2019
Financial Closeout	Projected	Q2 2020



# Liberty Series Capacitor Bank

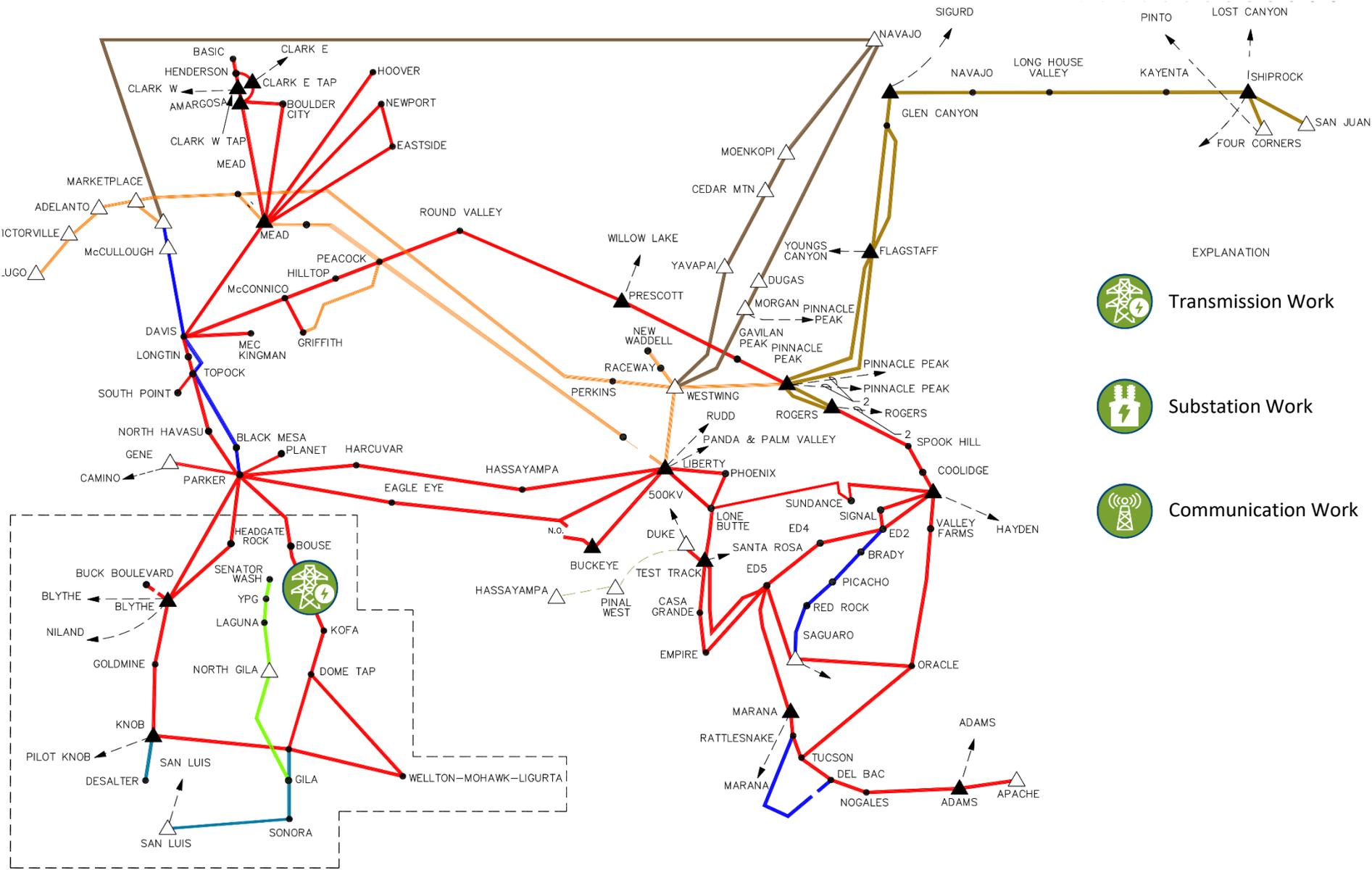


FUNDING TYPE	ORIGINAL BUDGET	BUDGET ADJUSTMENT 2017	BUDGET ADJUSTMENT 2018	BUDGET ADJUSTMENT 2019	CURRENT BUDGET	COST TO DATE	REMAINING FUNDS	ADDITIONAL FUNDS REQUIRED
Prepayment	\$ 10,372,000	\$ (3,776,632)	\$ (1,702,760)	\$ -	\$ 4,892,608	\$ 2,012,852	\$ 2,879,756	\$ -
Appropriations	\$ -	\$ 3,776,632	\$ 1,702,760	\$ -	\$ 5,479,392	\$ 5,479,392	\$ -	\$ -
<b>TOTAL</b>	<b>\$ 10,372,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 10,372,000</b>	<b>\$ 7,492,244</b>	<b>\$ 2,879,756</b>	<b>\$ -</b>

\*Cost = All Executions, Obligations, & Commitments Through 2/28/19



# Bouse-Kofa Rebuild



# Bouse-Kofa Rebuild

## Project Status

- Re-validation of estimates to split project into phases
- AOA study was initially performed as a single construction project; phasing will lead to modifications of the estimate and is currently being re-evaluated to ensure accurate phasing budgets
- Estimate is consistent with initial AOA cost estimates at present as we are still in preliminary phases of gathering survey, geotechnical, environmental and lands requirements.
- Due to Kofa-Dome and Gila-Dome transmission line projects, design of transmission line will not begin until Q4 2019, as construction is slated for 2022 through 2024

## Identified Risks

- None identified

## Conceptual Schedule Phase I

PROJECT MILESTONE	STATUS	DATE
Seed Funded	N/A	N/A
Approved for Funding	Completed	Q4 2018
Design Completed	Projected	Q1 2020
Construction Mobilization	Projected	Q2 2020
In-Service / Energization	Projected	Q2 2023
Financial Closeout	Projected	Q4 2023

## Conceptual Schedule Phase II

PROJECT MILESTONE	STATUS	DATE
Seed Funded	N/A	N/A
Approved for Funding	Completed	Q4 2018
Design Completed	Projected	Q1 2020
Construction Mobilization	Projected	Q2 2021
In-Service / Energization	Projected	Q2 2024
Financial Closeout	Projected	Q4 2024



# Bouse-Kofa Rebuild



FUNDING TYPE	ORIGINAL BUDGET	BUDGET ADJUSTMENT 2019	CURRENT BUDGET	COST TO DATE	REMAINING FUNDS	ADDITIONAL FUNDS REQUIRED
Prepayment	\$ 26,520,000	\$ -	\$ 26,520,000	\$ 89,647	\$ 26,430,353	\$ -
Appropriations	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTAL</b>	<b>\$ 26,520,000</b>	<b>\$ -</b>	<b>\$ 26,520,000</b>	<b>\$ 89,647</b>	<b>\$ 26,430,353</b>	<b>\$ -</b>

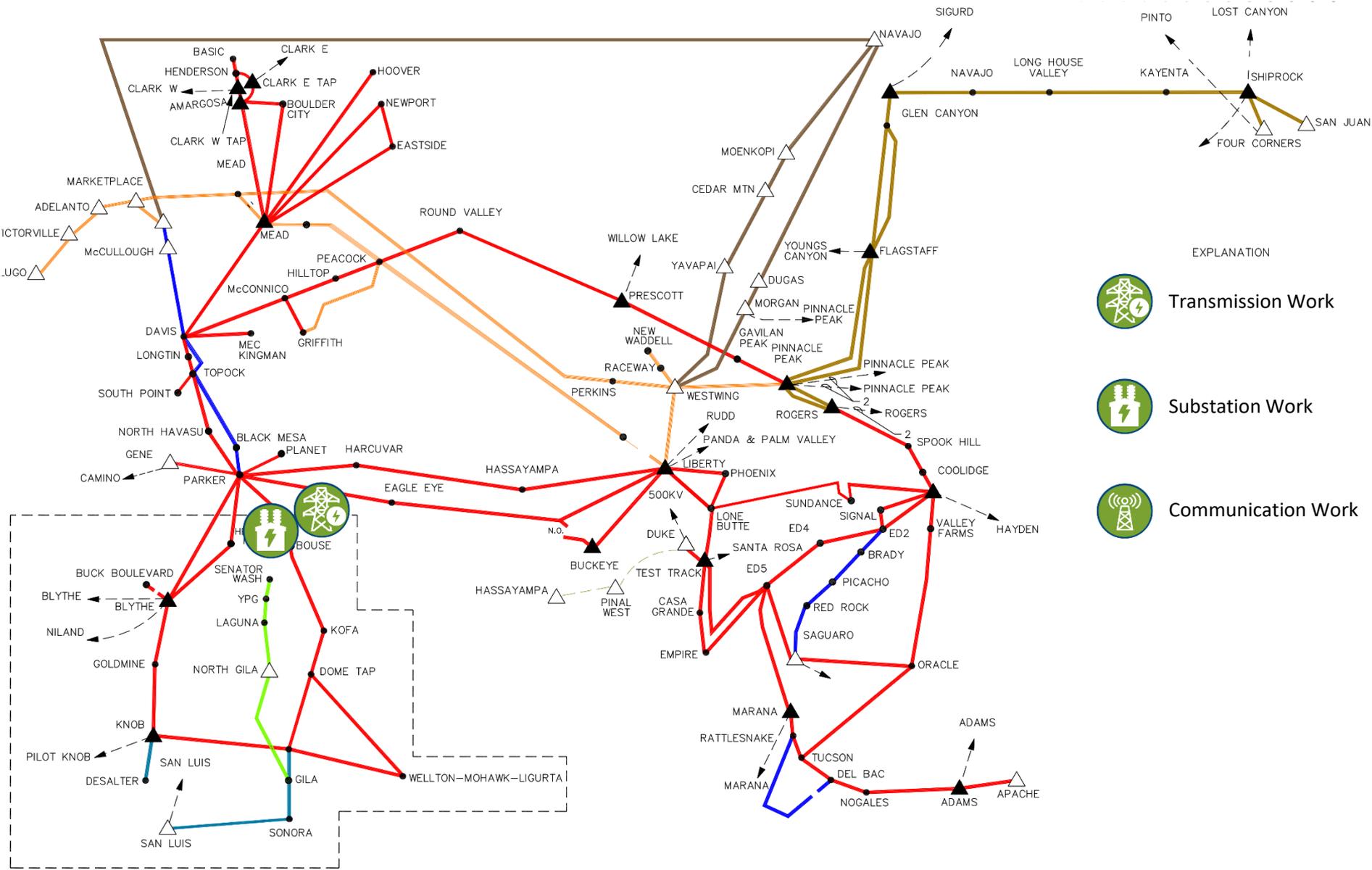
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# SEED PROJECT UPDATE



# Bouse Upgrade Project



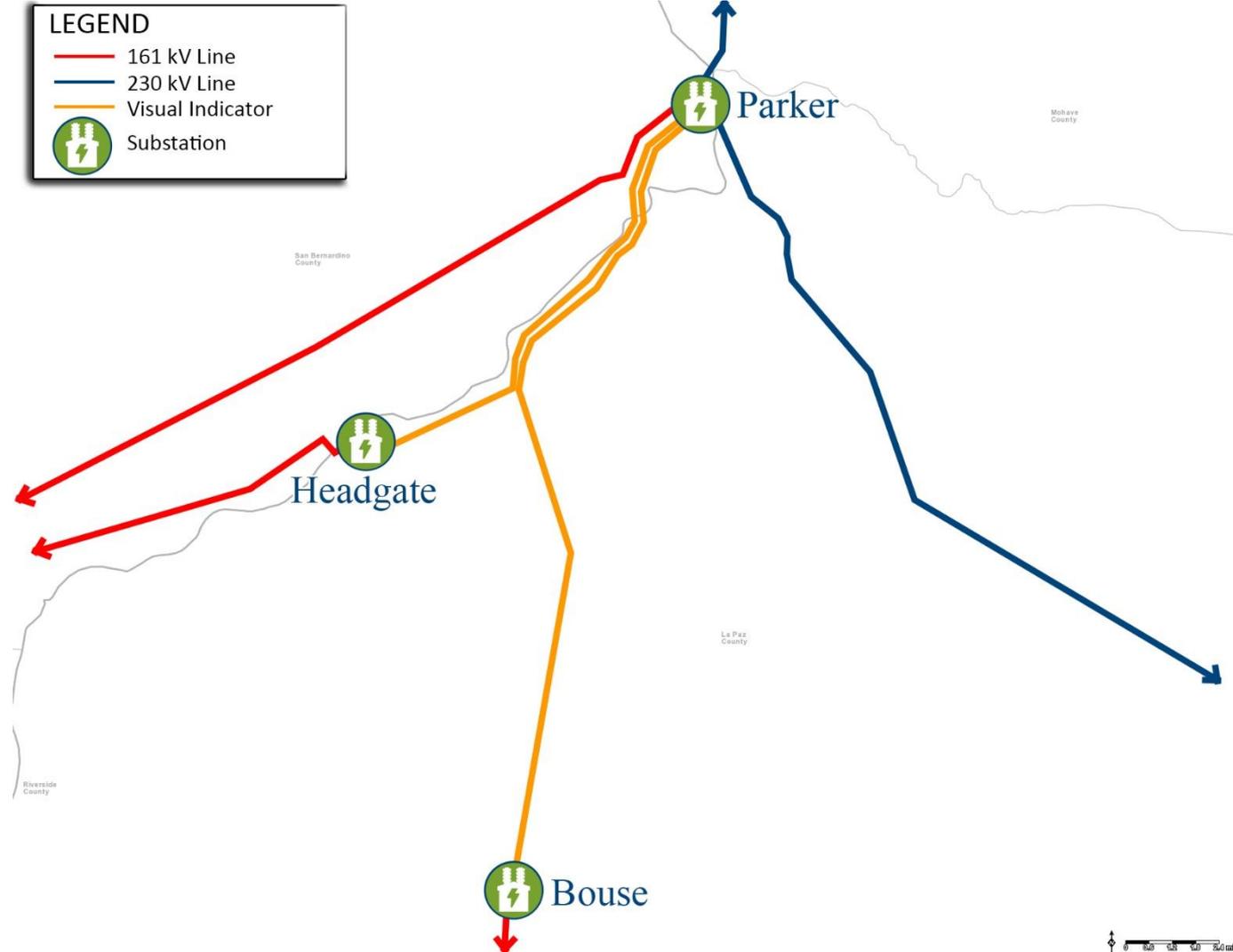
# Bouse Upgrade Project

- This is a snapshot of the parker region as it stands today

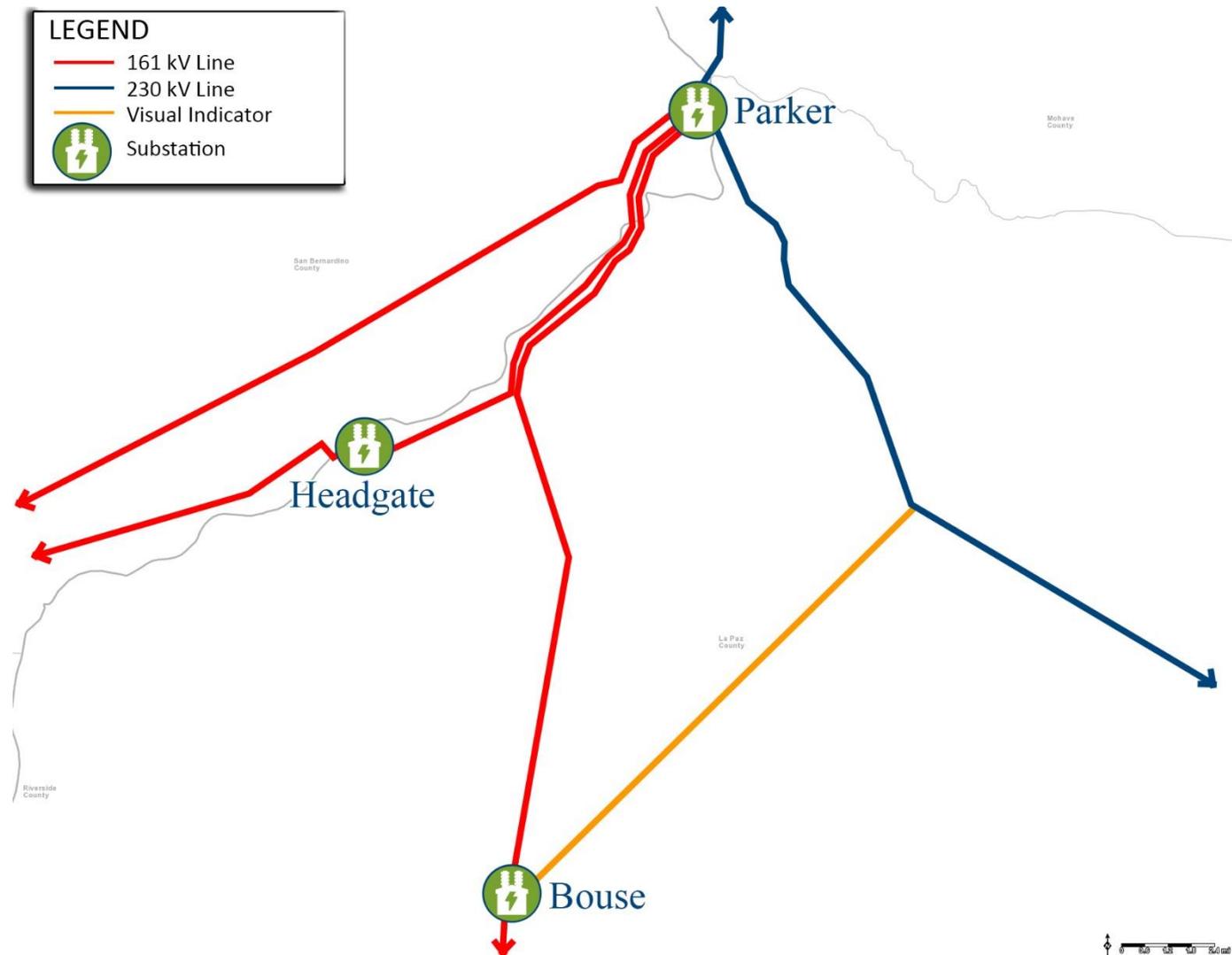
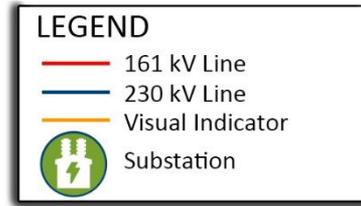


# Bouse Upgrade Project

- The Parker-Headgate 161kV and the Parker-Bouse 161kV transmission lines have fallen into a state of disrepair and a rebuild project was initiated in 2013
- The Project encountered hang-ups in design and for the next several years made little progress
- Due to the continued degradation of the lines, a search for an alternative to the rebuild was pursued



# Bouse Upgrade Project

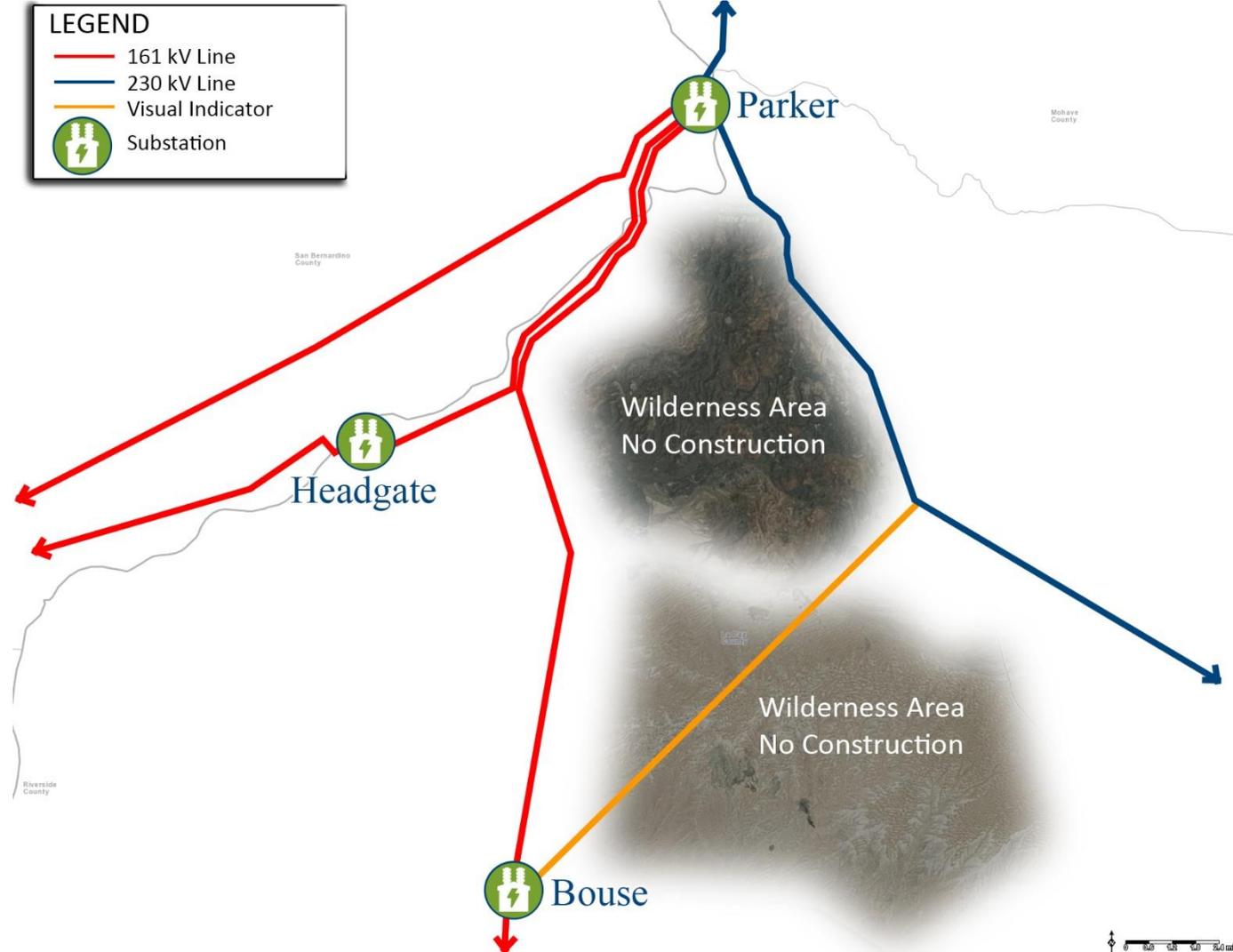


- The Bouse Upgrade Project was proposed to provide an alternative path to the Parker-Headgate and Parker-Bouse transmission lines
- The initial conceptual design was drawn as a straight shot from the Parker-Liberty #2 line down to Bouse Substation
- The line would be a **double circuit 230kV** line
- Bouse Substation would be converted to a 230/161 kV facility
- This conceptual project was shared during Customer Meetings over the course of 2018
- The project moved into the Seed Funding Phase in November 2018



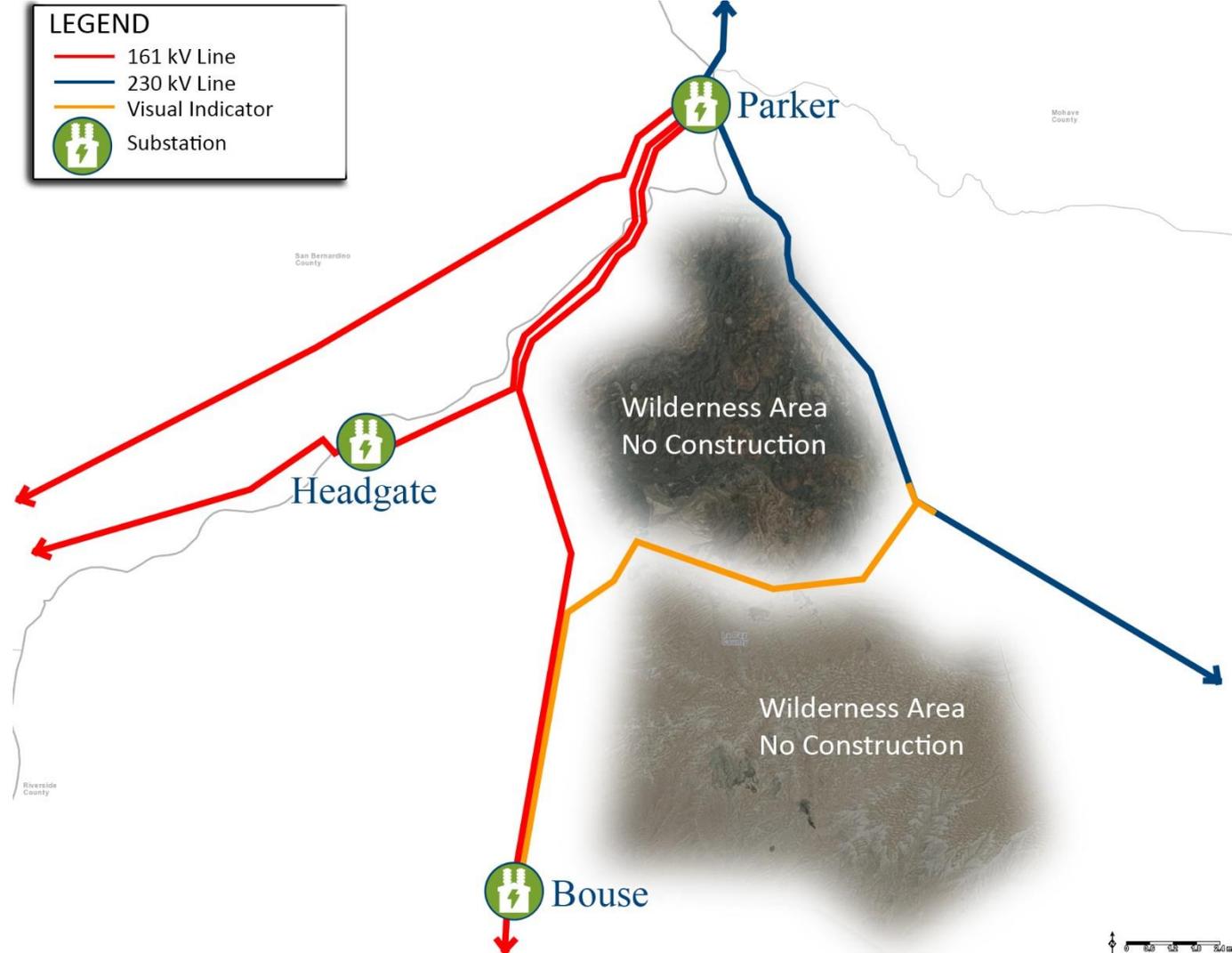
# Bouse Upgrade Project

- During the Seed Funding Phase the original proposed transmission path was identified to be non-viable, due to non-developable wilderness areas across the proposed route



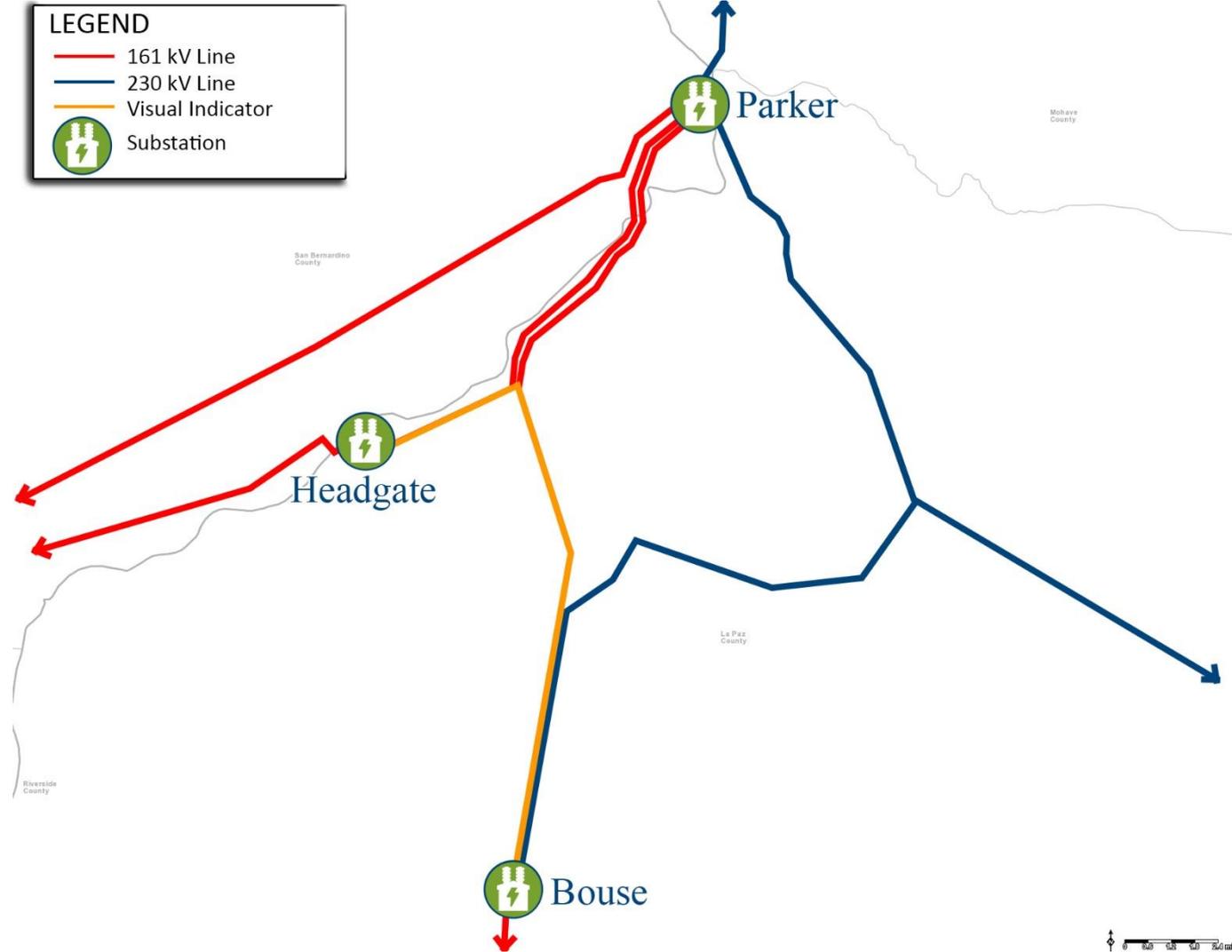
# Bouse Upgrade Project

- An alternative path was identified, that would weave between the wilderness areas and follow along Shea Road, this new route is ~5 miles longer than the originally proposed alignment
- This **double circuit 230kV** line would then arrive at the existing Bouse-Parker transmission line and make its way south to Bouse Substation
- This situation is an excellent example of why WAPA is now including Environmental in the Study and Seed Funding Process, as it allows the identification of situations prior to officially entering construction and allows negotiation of potential issues



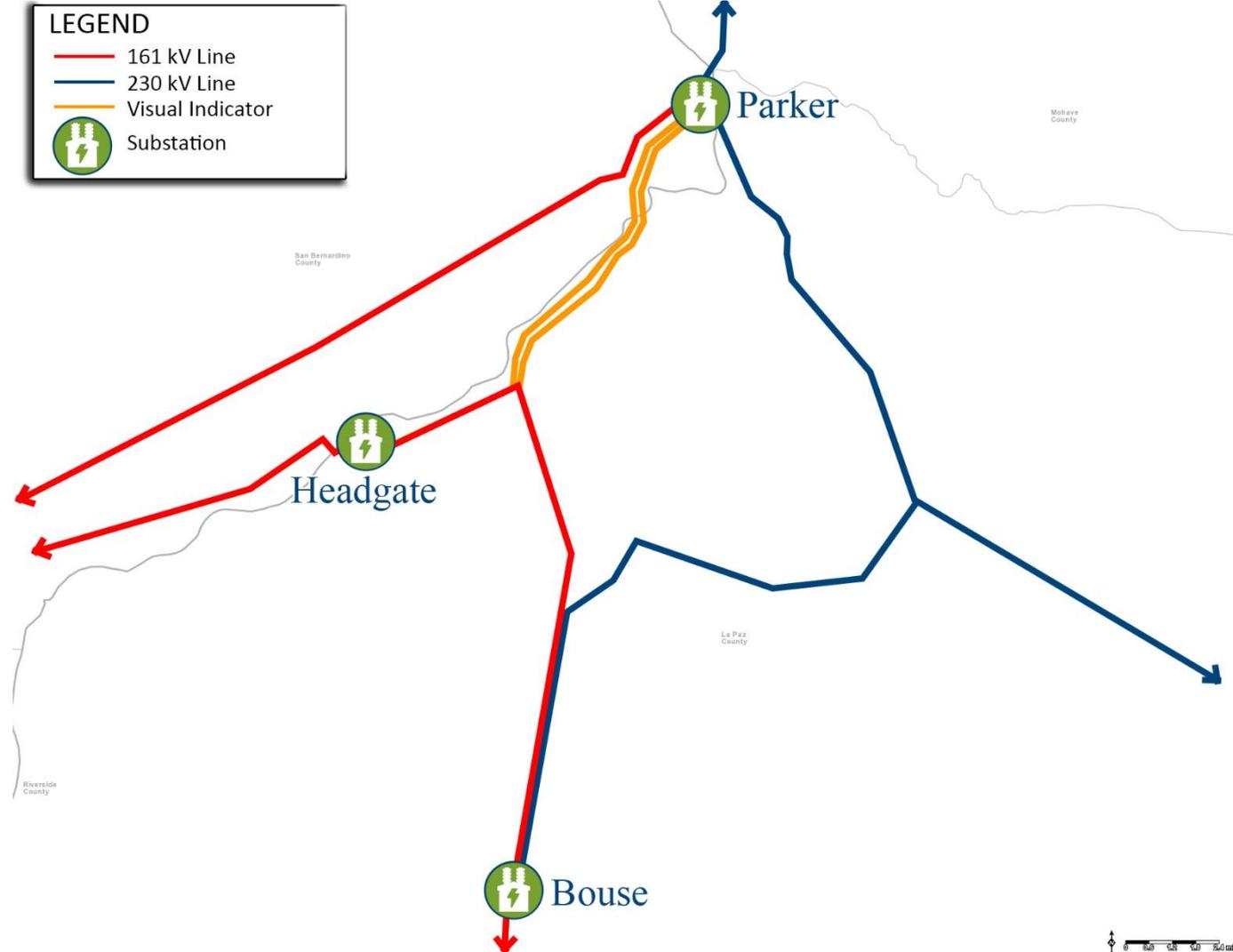
# Bouse Upgrade Project

- The existing Parker-Headgate Rock and Parker-Bouse transmission lines would be connected together south of the Parker Strip
- This would form a new transmission path between Parker substation, Bouse substation and Headgate Rock substation



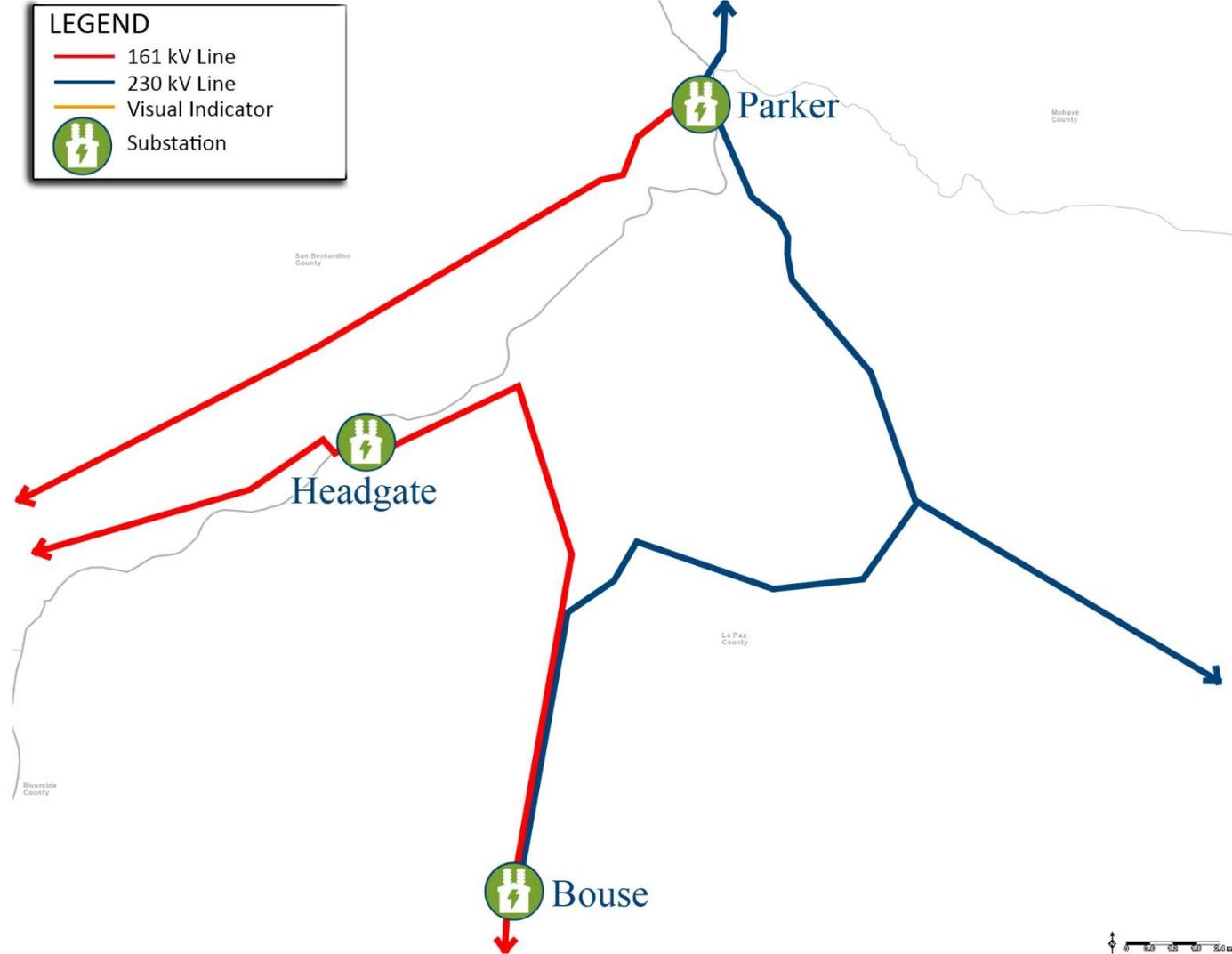
# Bouse Upgrade Project

- With this new path the Parker-Headgate and Parker-Bouse transmission lines would no longer be needed



# Bouse Upgrade Project

- The Parker-Headgate and Parker-Bouse lines could be removed up to the point of interconnection between Bouse and Headgate Rock
- This removes the line from a major portion of the strip in Parker



# Bouse Upgrade Project

- This would be the layout of the South of Parker Area upon the successful completion of the Bouse Upgrade Project



# Bouse Upgrade Project

## Project Status

- Project was seed funded via appropriations in November 2018
- Aerial survey (LiDAR) and geotechnical work is being scheduled
- SF299 form has been submitted to the BLM
- Coordination with LaPaz county is underway
- An environmental assessment scope of work is projected to be completed April 1<sup>st</sup> 2019

## Identified Risks

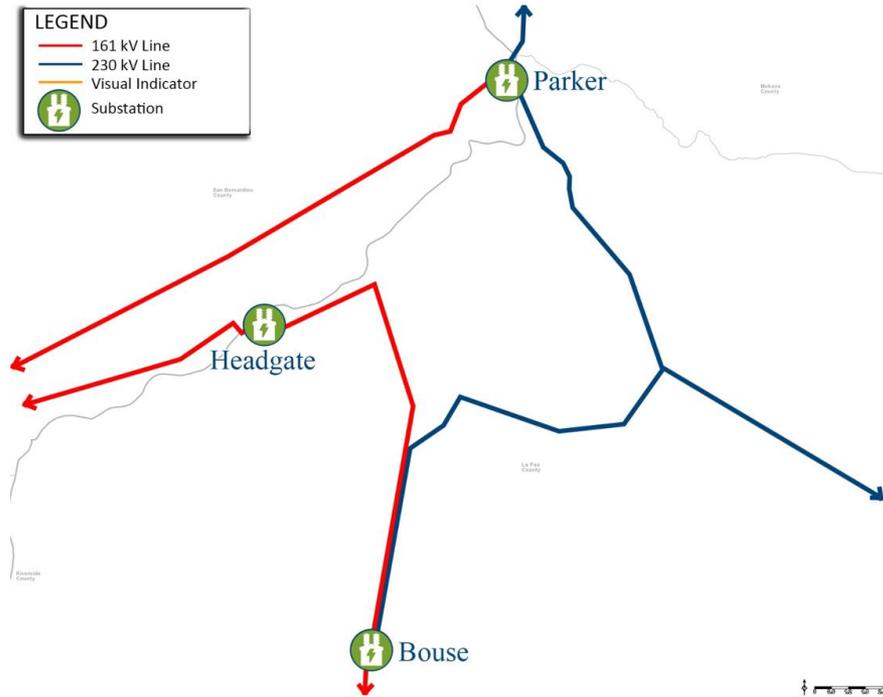
- Sensitivity of land surrounding new transmission line ROW
- Existing ROW along Parker Bouse 161kV is not sufficiently wide for new 230kV double circuit structures

## Conceptual Schedule

PROJECT MILESTONE	STATUS	DATE
Seed Funded	Completed	Q4 2018
Approved for Funding	Projected	Q4 2019
Design Completed	Projected	TBD
Construction Mobilization	Projected	TBD
In-Service / Energization	Projected	TBD
Financial Closeout	Projected	Q4 2025



# Bouse Upgrade Project



FUNDING TYPE	ORIGINAL BUDGET	BUDGET ADJUSTMENT 2019	CURRENT BUDGET	COST TO DATE	REMAINING FUNDS	ADDITIONAL FUNDS REQUIRED
Prepayment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Appropriations	\$ 816,000	\$ -	\$ 816,000	\$ 186,455	\$ 629,545	\$ -
<b>TOTAL</b>	<b>\$ 816,000</b>	<b>\$ -</b>	<b>\$ 816,000</b>	<b>\$ 186,455</b>	<b>\$ 629,545</b>	<b>\$ -</b>

*\*Cost = All Executions, Obligations, & Commitments Through 2/28/19*



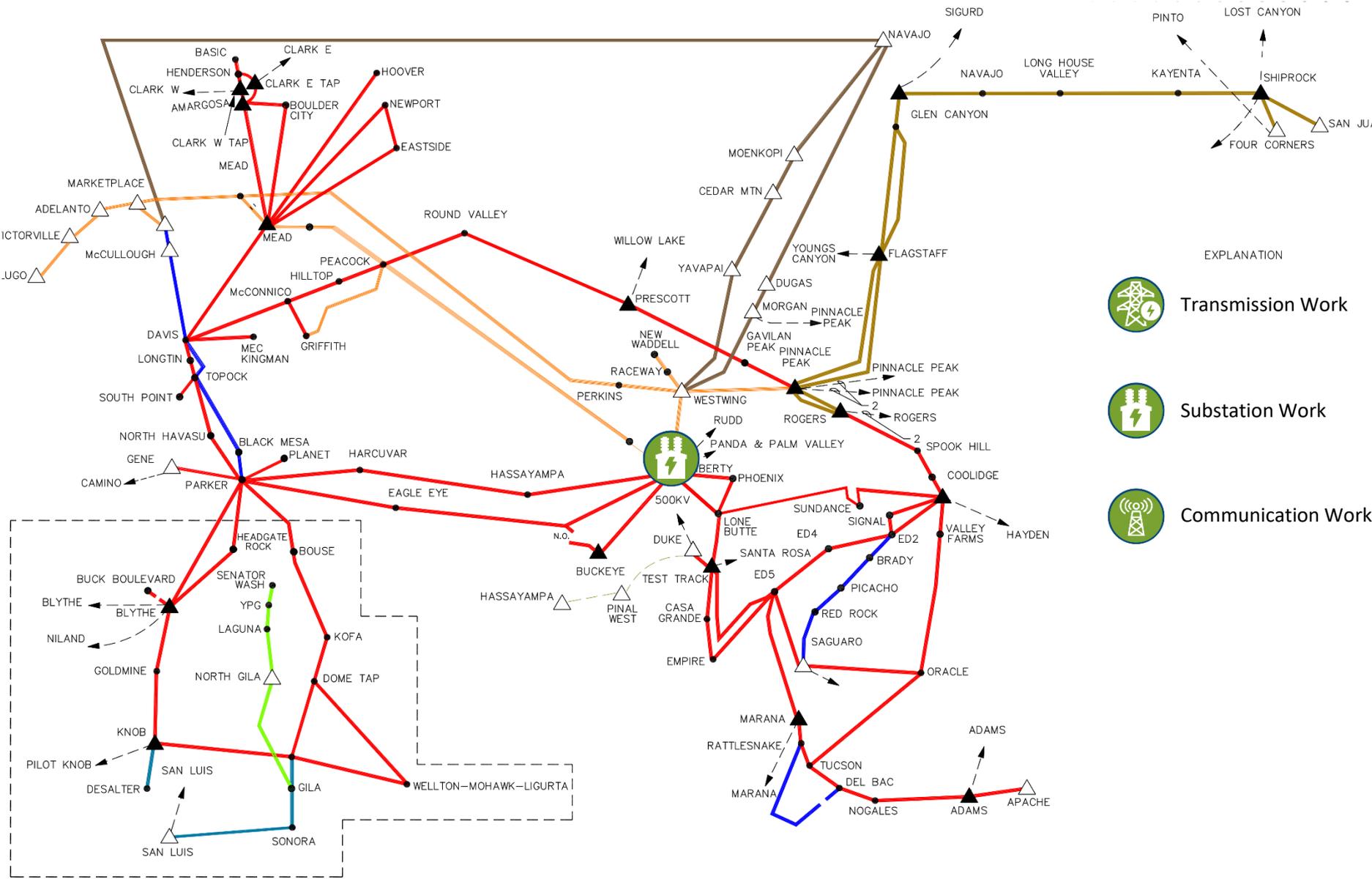
BREAK  
(10 MINUTES)



# WORK FOR OTHERS



# Liberty-Rudd Project



- EXPLANATION
-  Transmission Work
  -  Substation Work
  -  Communication Work



# Liberty Rudd Project

## Project Description

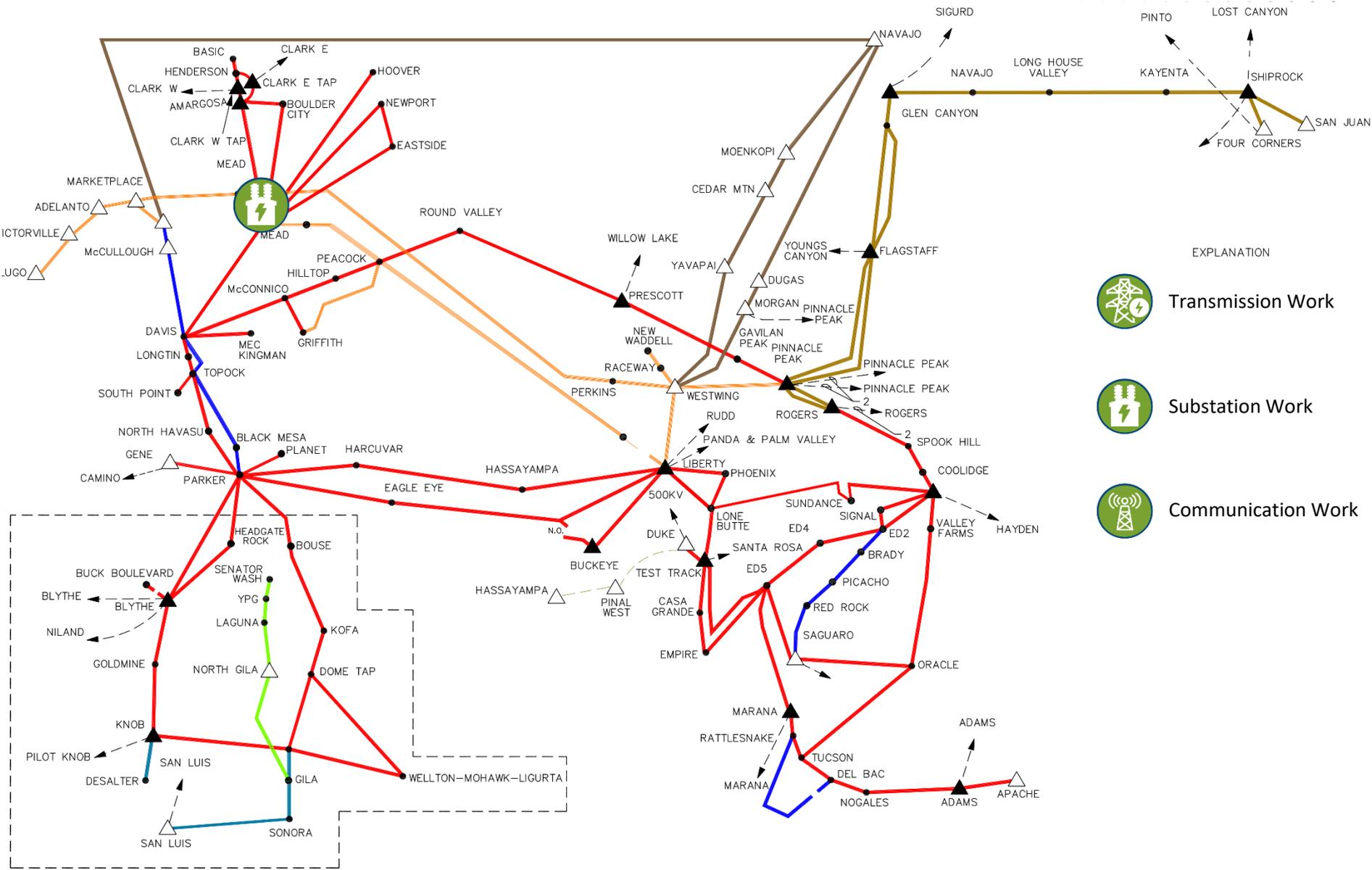
- The Liberty Rudd Bay and the 230-kV transfer bay both require upgrades to jumpers, disconnecting switches, rigid bus ties, support structures, cable trenches and associated electrical equipment and material
- The transfer bay breaker 1386 is being replaced with a Mitsubishi breaker that is presently located in the Parker Substation, and will require the breaker foundation to be replaced
- The 230kV yard cable trench is currently near capacity; de-commissioned cables are being removed to accommodate new cables required for the upgrades
- WAPA is providing design, equipment procurement, construction contract procurement, construction supervision, and project management
- This upgrade project will mitigate existing potential LIB – RUD 230kV line emergency thermal rating overloads

## Project Schedule

- In Service Projected – Q2 2019



# Townsite Solar



# Townsite Solar

## Project Description

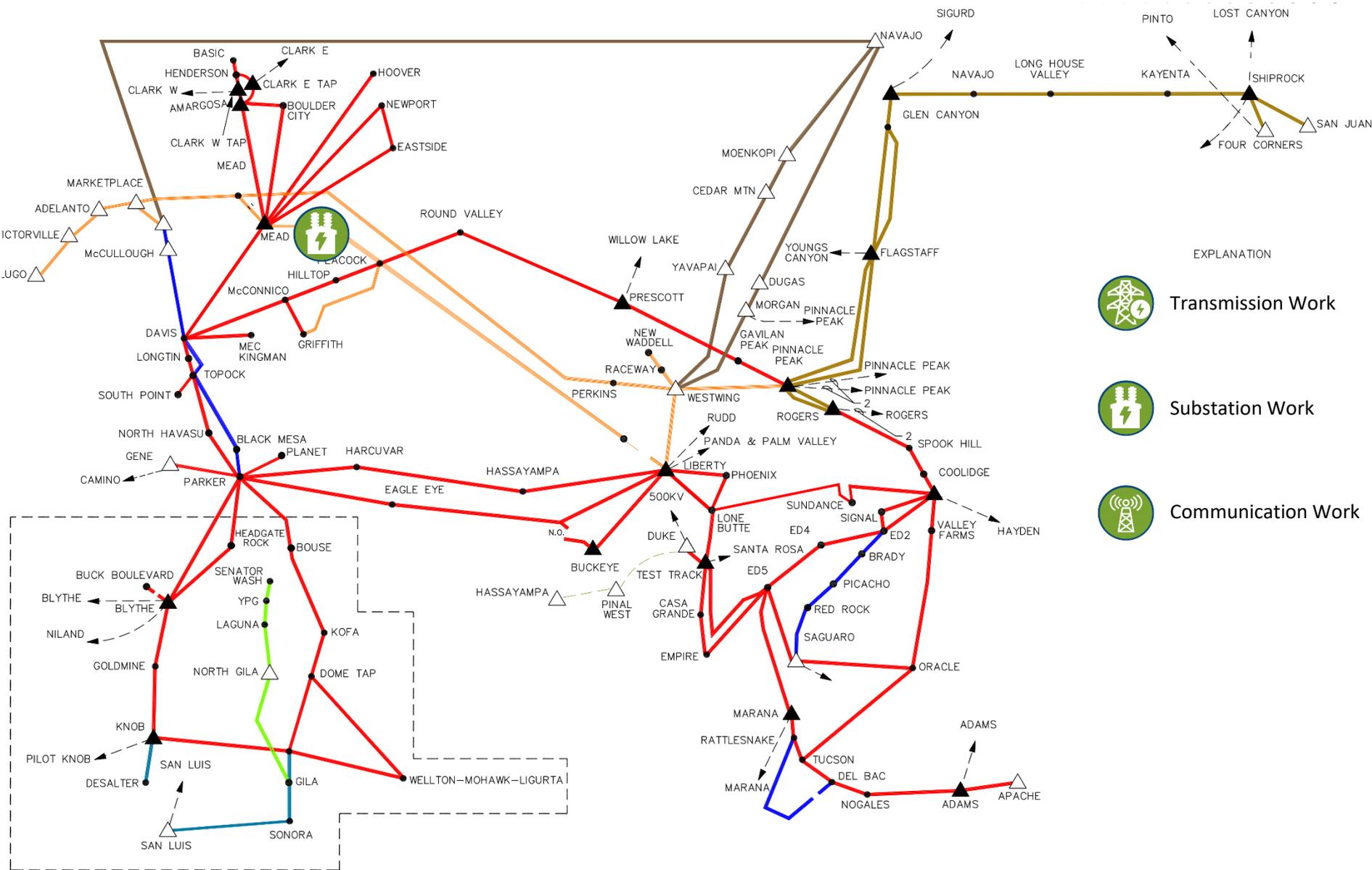
- Mead Substation's 230-kV yard is built in a breaker-and-a-half arrangement
- An open position in the southernmost end of the bus will be utilized for a new line bay
- This new bay will consist of two 230-kV 90-kA circuit breakers, four 230-kV disconnect switches, instrument transformers, support steel and foundations, rigid bus-work, a steel takeoff structure and relay protection
- Control and communications as well as power cables will be routed between the new position and the control building through the existing cable tray system

## Project Schedule

- In Service Projected – Q4 2021



# Mohave Windfarm Project



# Mohave Windfarm Project

## Project Description

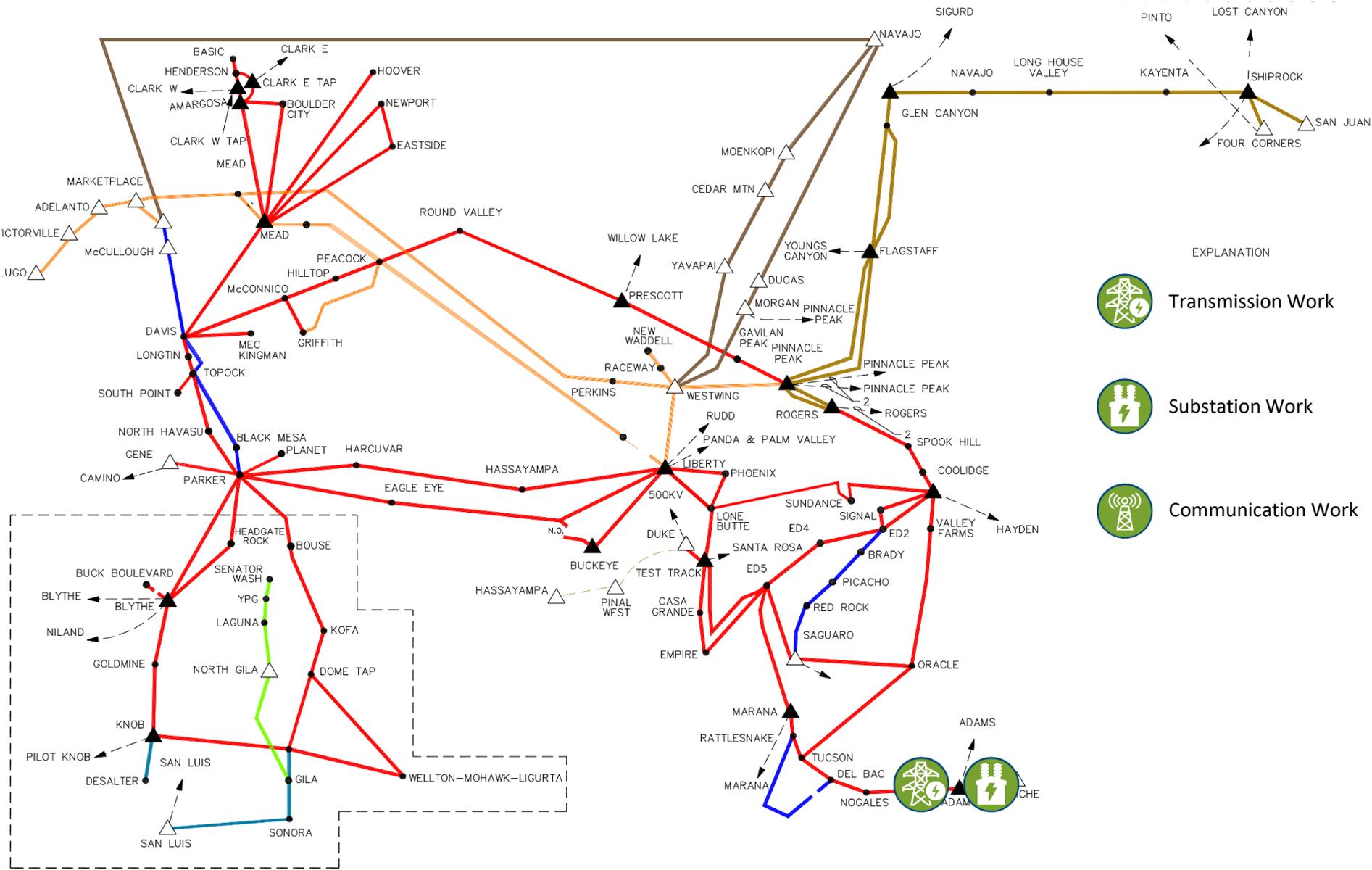
- The Project Proponent is proposing to build a 425-MW wind generating facility north of Kingman, Arizona
- This interconnection will require constructing a new 345-kV switching station consisting of a three-element ring bus with three power circuit breakers, a new control building, and equipment to provide redundant communication paths
- The Proponent will build a single-circuit 345-kV tie line to their step-up substation, expected to be located within a few spans of the new switching station
- Equipment upgrades and replacement will be required at Mead substation. The existing 345/230-kV, 600-MVA transformer (KU2A) will be replaced by a matching device and a second transformer with the same characteristics will be added in parallel

## Project Schedule

- In Service Projected – Q4 2021



# Southline Project



- EXPLANATION
-  Transmission Work
  -  Substation Work
  -  Communication Work

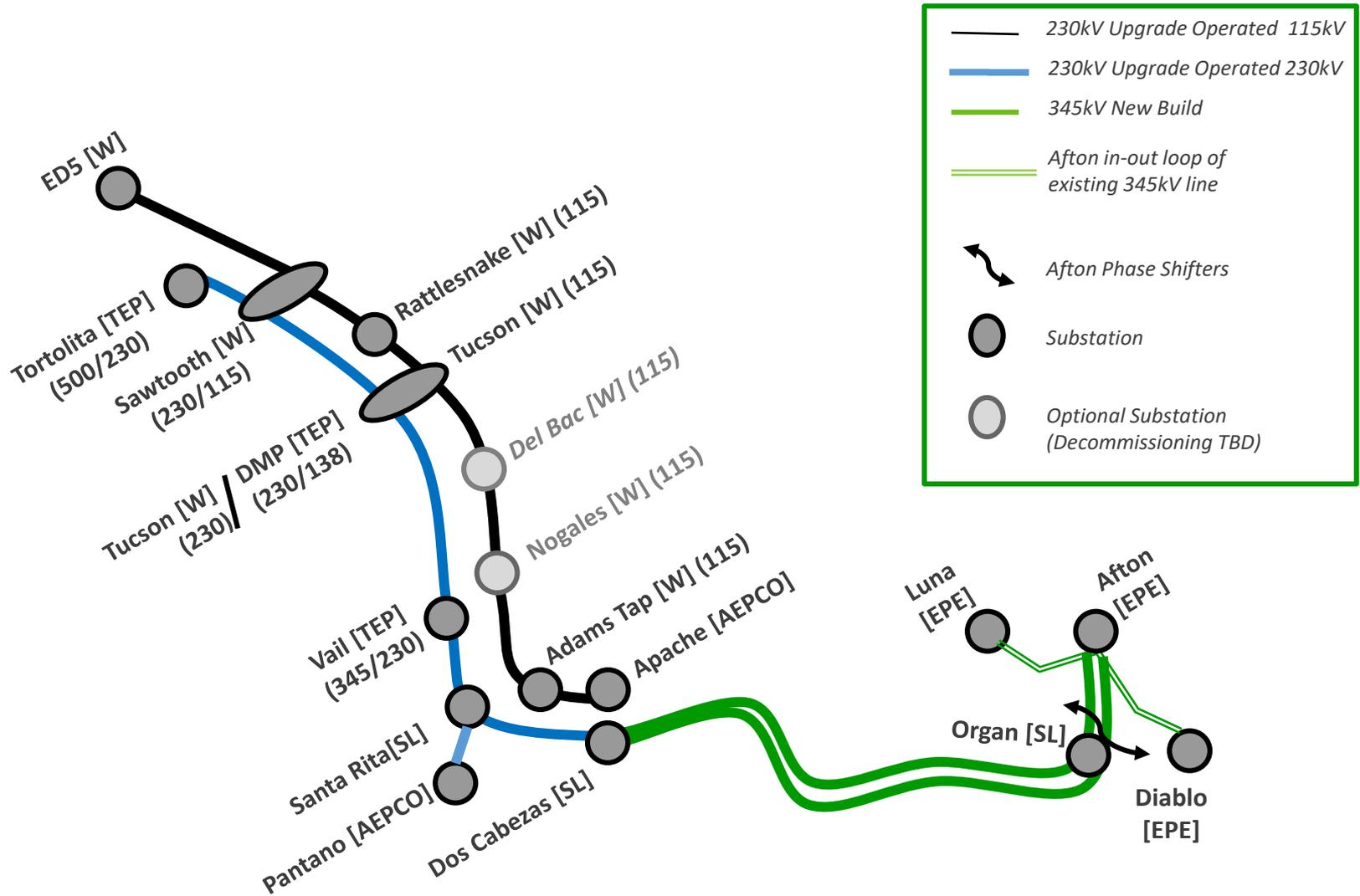


# Southline Transmission Project

- WAPA continues to provide support for the Project. Southline is funding the work through a pre-construction agreement to isolate WAPA customers from the costs of the development of the Project.
- WAPA and Southline are working under the following agreements:
  - Pre-construction Agreement (Amended Dec 2018); funding mechanism to develop project to construction (\$6.2MM CY2019)
  - Participation Agreement (January 2018); overall master agreement that ties all project related agreements together. Provides background, project framing, governance & committees.
- The current level of commercial off-take interest of Southline's share of project capacity supports a partial build of the project, referred to as "Phase A". Pursuing "Phase B" is contingent upon Southline sufficiently advancing committed commercial interest after which the remaining project elements would be built as "Phase B".



# Technical Sketch – Interim Phase A



# Project Update – Current Efforts

- Tailoring scope, schedule, and approach to current commercial support
- Development of construction phases (“A” and “B”)
- Considerable contract negotiations
- Supplemental Environmental Impact Assessment – ED-5 Extension
- Coordinating with interconnected utilities technical configurations, operational assumptions, and joint access as necessary
- T-Line design – Apache substation to Nogales substation
- Land acquisition surveys, ROW, descriptions prior to formal acquisition



# Project Update – Contract Negotiations

Since execution of the Participation Agreement in January 2018, WAPA and Southline have been negotiating the following Key Agreements:

- Amended and Restated Participation Agreement – Addressing Phase A / Phase B delta.
- Construction Agreement – Roles, responsibilities, and expectations of constructing the project.
- Ownership Agreement – Delineation of which entities will hold title to which assets, equipment, structures and hold rights to specified amounts of capacity or capacity rights.
- Operations, Maintenance, and Replacements Agreement – Listing of all equipment associated to the project and which entity owns, operates, maintains, replaces, and has financial responsibility of the equipment.
- Lease Agreement – Western’s lease of land and/or facilities as needed.
- Communications and Security Agreement – Communication sharing arrangements between Western, Southline, and any sub-leases to include data security and compliance.

Targeting final drafts ready for execution in the 2<sup>nd</sup> quarter 2019



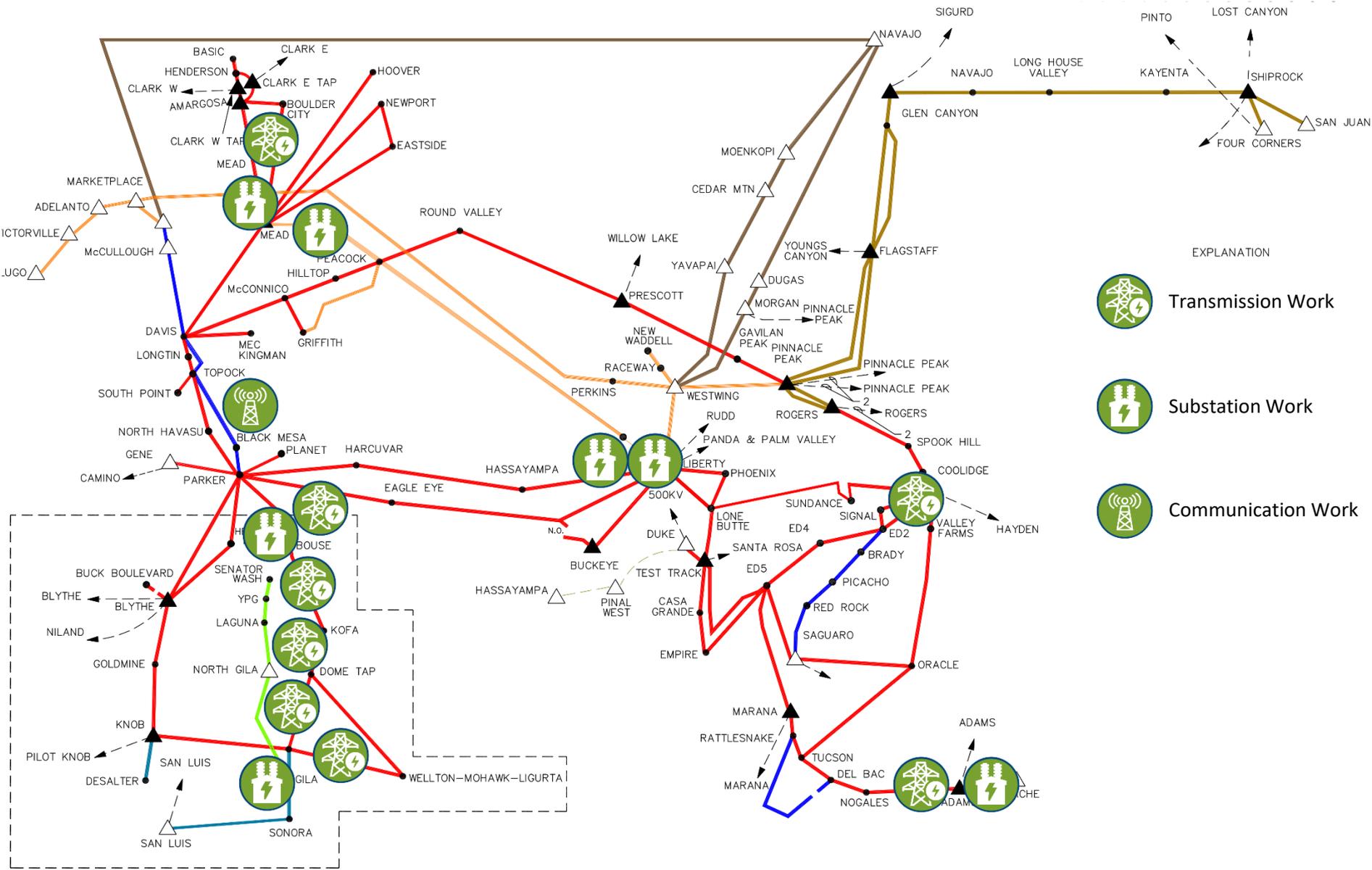
# Anticipated Timeline\*

- Q2 2019 – Finalize scope of work per phase
- Q2 2019 – Executable contractual drafts
- Q3-Q4 2019 – Project financing / commence construction
- Q4 2021 – Initial transfer capabilities (Vail)
- Q3 2023 – Complete Phase A construction
- 20?? – Complete Phase B construction

*\*Schedule slip while negotiations for off-takers proceed*



# DSW 2019 Active Construction Map



## EXPLANATION

-  Transmission Work
-  Substation Work
-  Communication Work

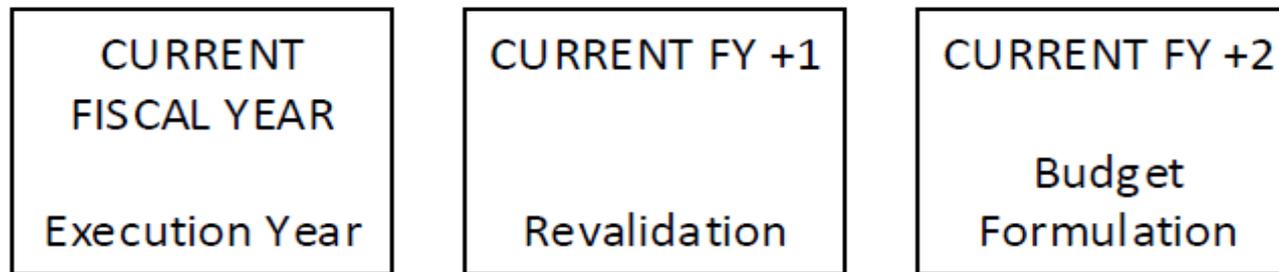


# 10-YEAR PLAN STRATEGIC PIVOT STATUS



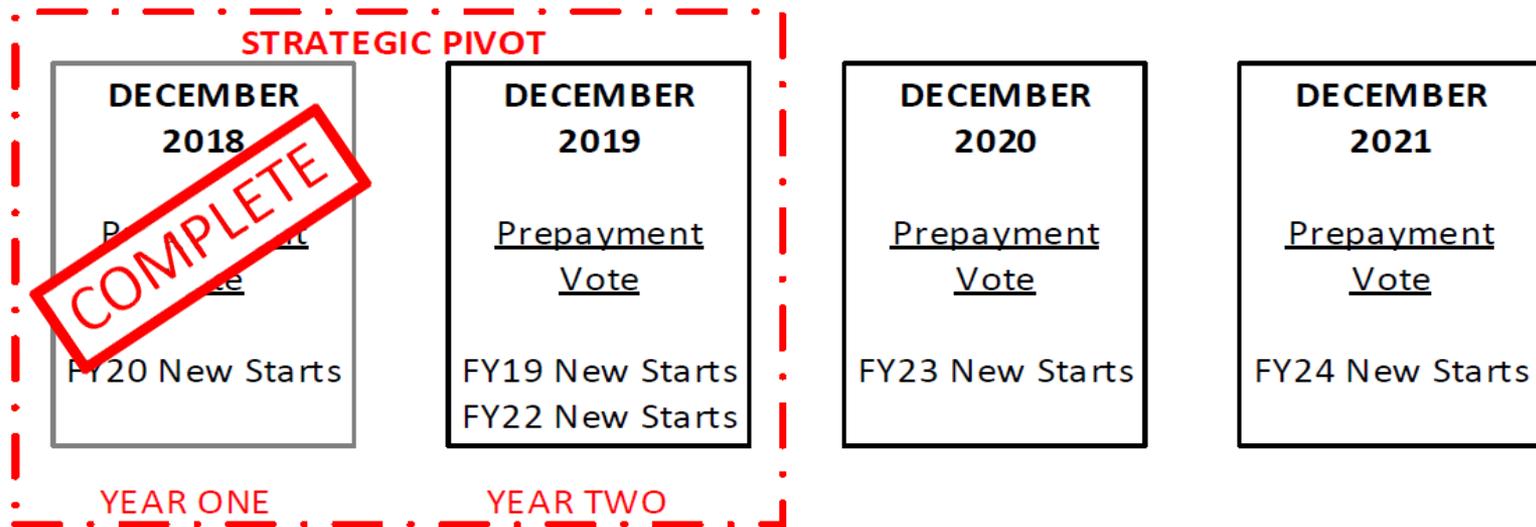
## Pivot Goals

- The strategic pivot is a two part process which will align the 10-Year Plan with the budget formulation schedule
  - Federal budget formulation occurs two fiscal years in advance of the current year
- After the pivot is complete, prepayment funding will be voted on for projects that occur two years out from the current year
  - This differs from the historical prepayment voting schedule, which involved voting on projects for the current fiscal year



# Pivot Schedule

- The strategic pivot will be conducted across two 10-Year Plan annual cycles (2018 & 2019)
- *In December 2018, WAPA successfully held a prepayment Vote Meeting completing Year 1 of the Pivot*
- *The Prepayment vote in December 2019 will successfully conclude the Pivot*
- *In 2020, DSW will be moving into standard 10-Year Plan operation, with voting held for budget formulation year tie in for Q4 2022*



# 10-YEAR PLAN NEXT STEPS



# Next Steps

## June 2019 Customer Meeting

### Agenda Focus

- DRAFT 10-Year Plan
- FY19-21 project details
- RRADS Program Review
- Address any outstanding action items from April meeting

## WAPA Planning Reminder

JPA Attachment 4: Transmission Planning Process and Schedule: New accommodations for customer study requests to assess regional transmission needs. Please send requests anytime to:

Joshua Johnston

Transmission Planning Manager

[jjohnston@wapa.gov](mailto:jjohnston@wapa.gov)



# DSW Customer Meeting Schedule 2019



## DSW 10-Year Capital Plan Annual Program Milestones Parker-Davis & Intertie Project Customers

YELLOW – Quarterly Customer Meetings  
 RRADs – Retirements, Replacements, Additions, & Deletions  
 MDCC- Maintenance, Design, Construction, Committee  
 AOA – Analysis of Alternatives Study  
 WIP – Work in progress

YEAR: 2019    REVISED: 2019.01.15    Budget Formulation: FY22    AOA Study Formulation: FY23

CUSTOMER ENGAGEMENTS

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
			<b>Q1 CUSTOMER MEETING (ACTIVE PROJECTS)</b>	OPTIONAL CUSTOMER MEETING	<b>Q2 CUSTOMER MEETING (Draft Plan)</b>	OPTIONAL CUSTOMER MEETING			<b>Q3 CUSTOMER MEETING (Formal Plan)</b>	OPTIONAL CUSTOMER MEETING	<b>Q4 CUSTOMER MEETING (Prepayment Vote)</b>
			<b>FOCUS ON</b> <ul style="list-style-type: none"> <li>Active Construction Update</li> <li>WFO Update</li> <li>Vegetation Management</li> </ul> <i>Customer Feedback on:</i> <ul style="list-style-type: none"> <li>Provide feedback on FY23 priorities &amp; preliminary AOA Alternatives</li> <li>Provide WAPA written comments within 30 days</li> </ul>	<b>FOCUS ON</b> <ul style="list-style-type: none"> <li>Follow-up meeting at Customer's Request</li> <li>Any additional discussion on preliminary AOA Study Alternatives or project priorities</li> </ul>	<b>FOCUS ON</b> <ul style="list-style-type: none"> <li>RRADs Status Update</li> <li>Draft 10-Year Plan presented</li> <li>Estimated Rate Impacts presented</li> <li>AOA Study Review</li> </ul> <i>Customer Feedback on:</i> <ul style="list-style-type: none"> <li>AOA study WIP status update</li> <li>Approval of viable study alternatives</li> <li>Provide WAPA written comments within 30 days</li> </ul>	<b>FOCUS ON</b> <ul style="list-style-type: none"> <li>Follow-up meeting at Customer's Request</li> <li>Any additional discussion on AOA Alternatives</li> </ul>			<b>FOCUS ON</b> <ul style="list-style-type: none"> <li>Formal 10-Year Plan presented</li> <li>Estimated Rate Impacts presented</li> <li>Completed AOA studies</li> </ul> <i>Customer Feedback on:</i> <ul style="list-style-type: none"> <li>Preferred Alternative Selection</li> <li>Provide WAPA written comments within 30 days</li> </ul>	<b>FOCUS ON</b> <ul style="list-style-type: none"> <li>Follow-up meeting at Customer's Request</li> <li>Any additional discussion on AOA Alternatives</li> </ul>	<b>FOCUS ON</b> <ul style="list-style-type: none"> <li>Prepayment funding request (vote)</li> <li>Report on allocation of Appropriations by WAPA MDCC</li> <li>Provide "sneak peak" of proposed projects for FY24 (WAPA's project priority results)</li> </ul> <i>Customer Feedback on:</i> <ul style="list-style-type: none"> <li>Prepayment Vote</li> <li>FY24 preliminary prioritization</li> <li>Provide WAPA written comments within 30 days</li> </ul>

