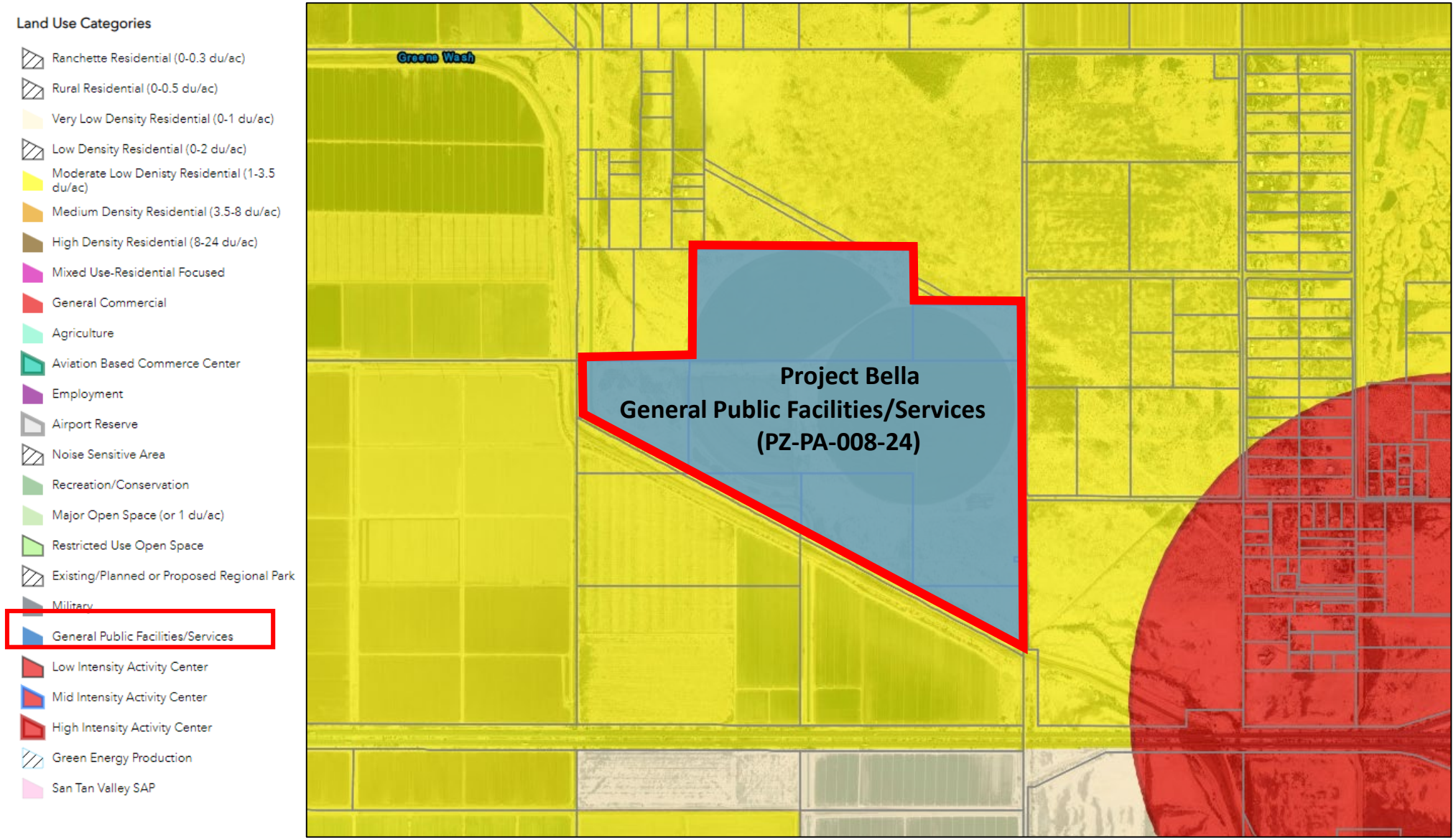
Project Bella

PZ-012-25 / PZ-PD-007-25

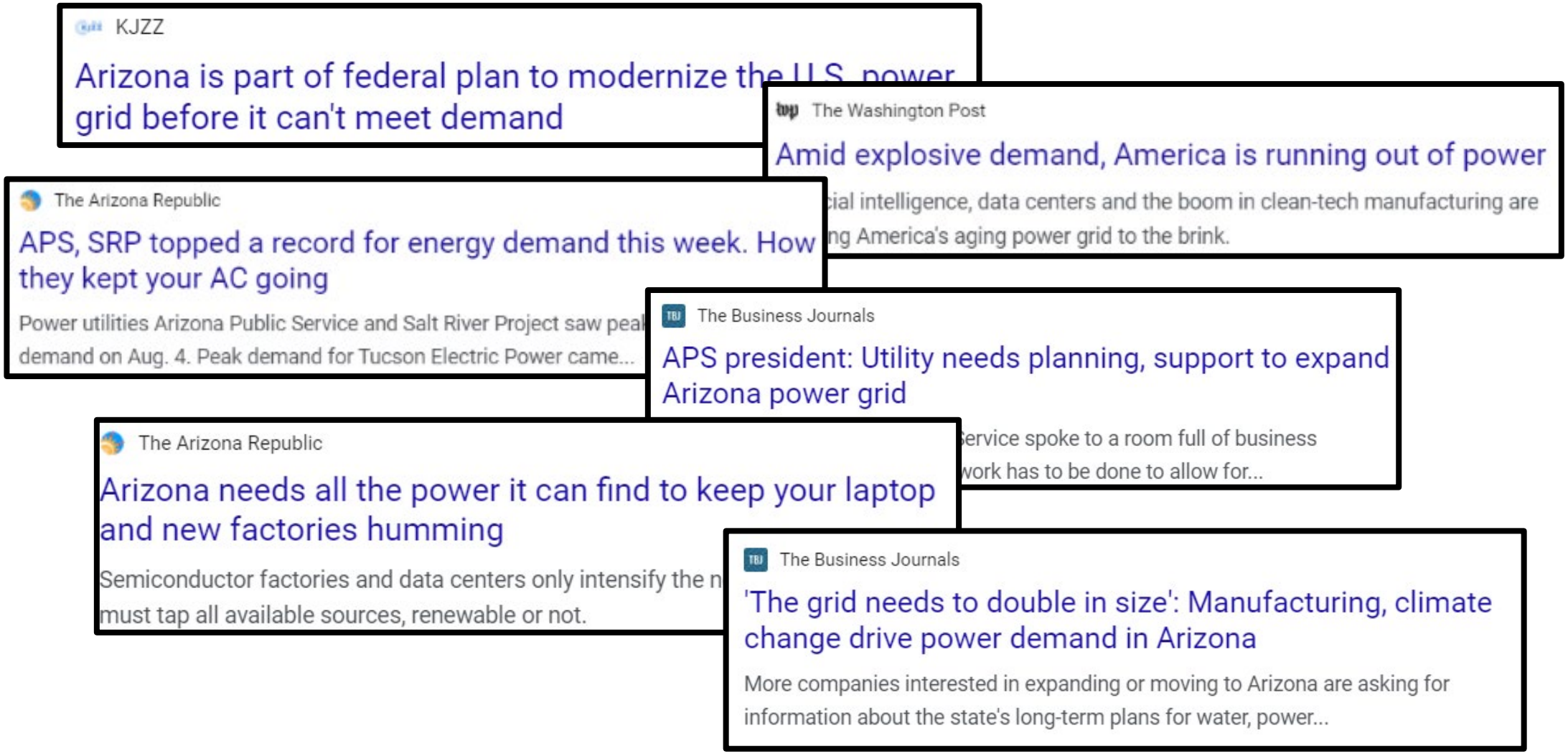


2024 Major Comprehensive Plan Amendment



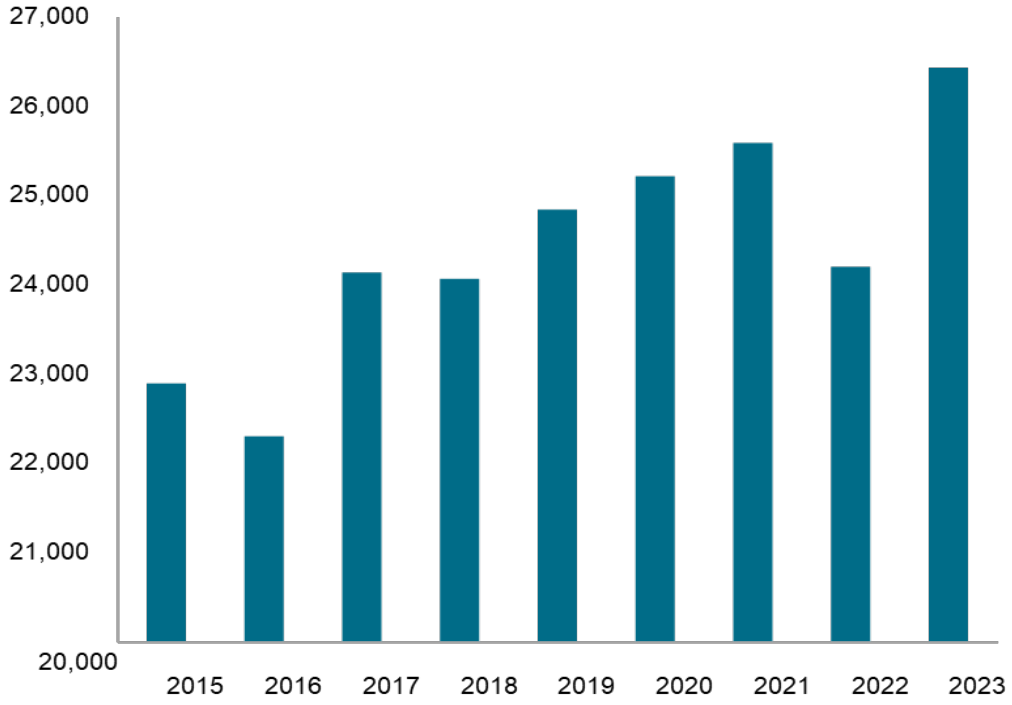
Why is Project Bella needed?

Arizona Electric Power Capacity Reaching Limit

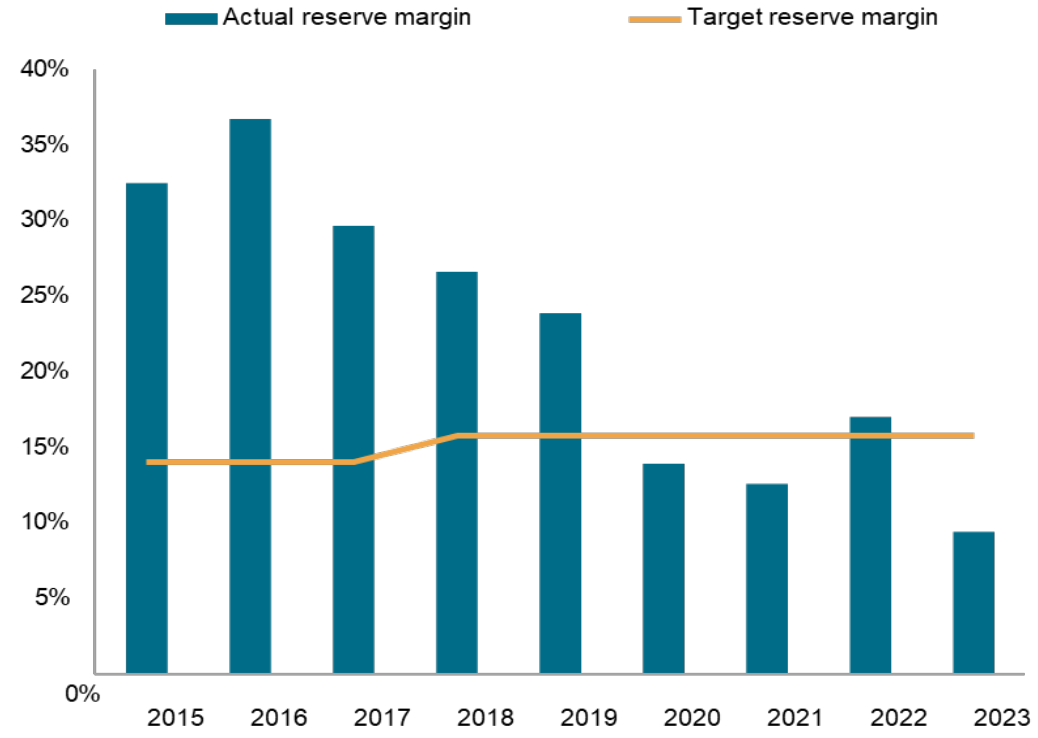


Declining Reliability and Resiliency

Electricity Demand:



Reserve Margins:



Two Projects – One Efficient Solution



Frequency Regulation

Reliability Reserves

Efficient Dispatch Optimization



Resource Adequacy and Reliability Capacity Utilizing Existing Energy Infrastructure.
Fully Staffed Resource with Superior Land Use Compatibility

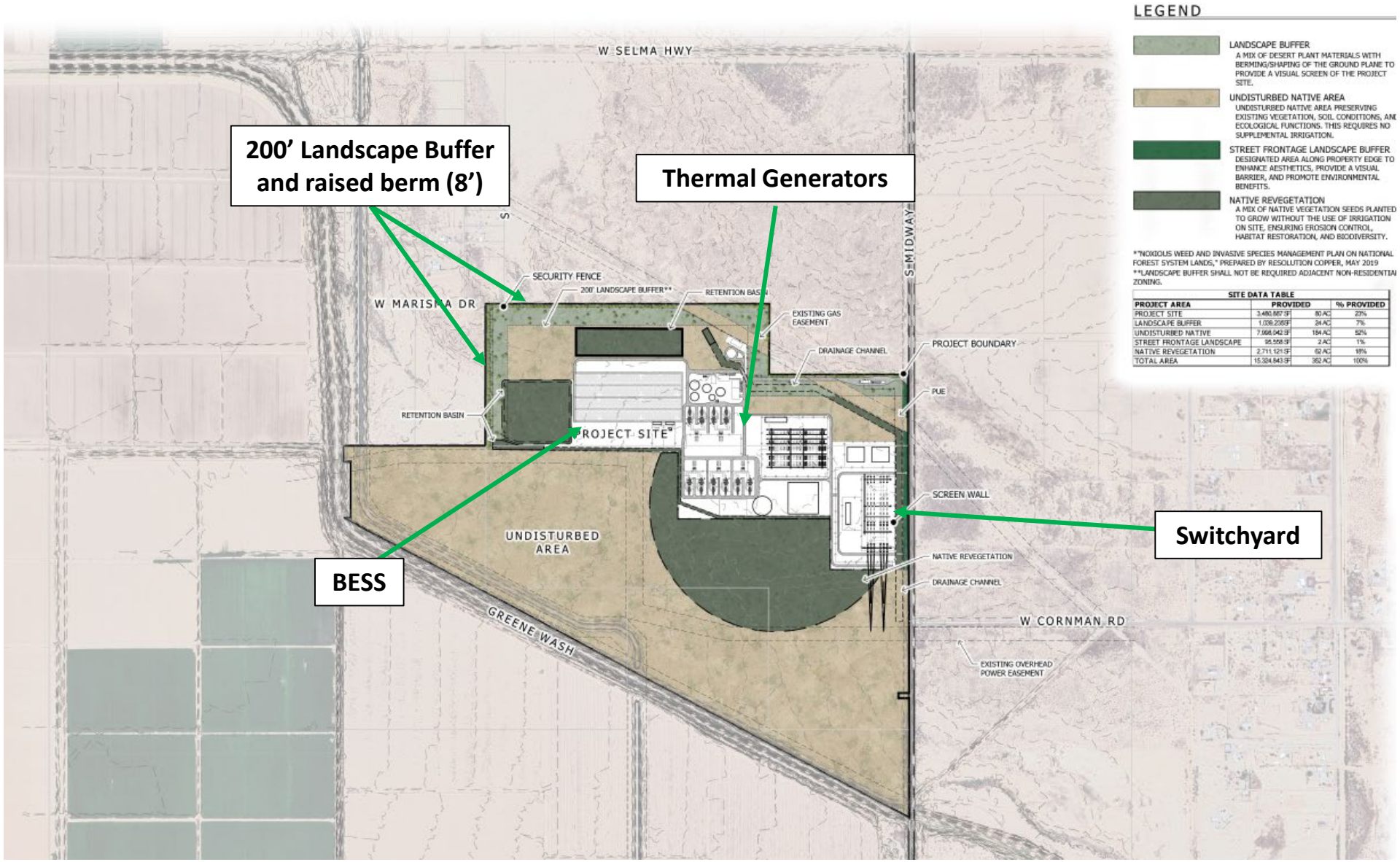
Natural Gas Thermal Generation

- 480 MW of GE LM6000 natural gas turbines. Same equipment as Sundance (APS) and Coolidge (SRP).
- Local Reliability Resource for firm reliable energy and renewable integration which meets or exceeds identified sustainability objectives.
- Projected Commercial Operation Date is Spring 2028

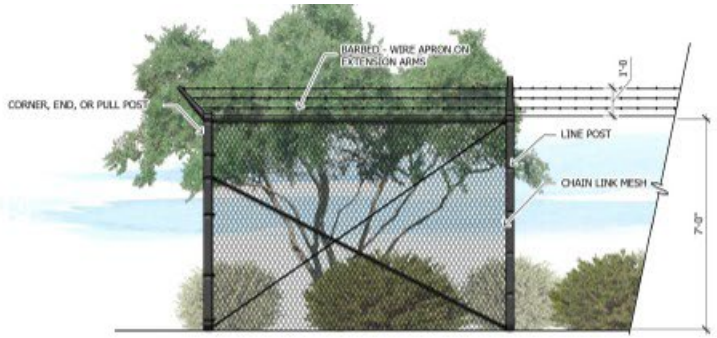
Grid-Charged Battery Energy Storage

- 440 MW of grid-charged BESS with liquid cooled cabinets and self-contained fire prevention systems.
- Provides essential load shifting, renewable integration, frequency regulation and peak energy supply to compliment local reliability.
- Projected Commercial Operation Date is Spring 2028.

Conceptual Site Plan



Wall Plan

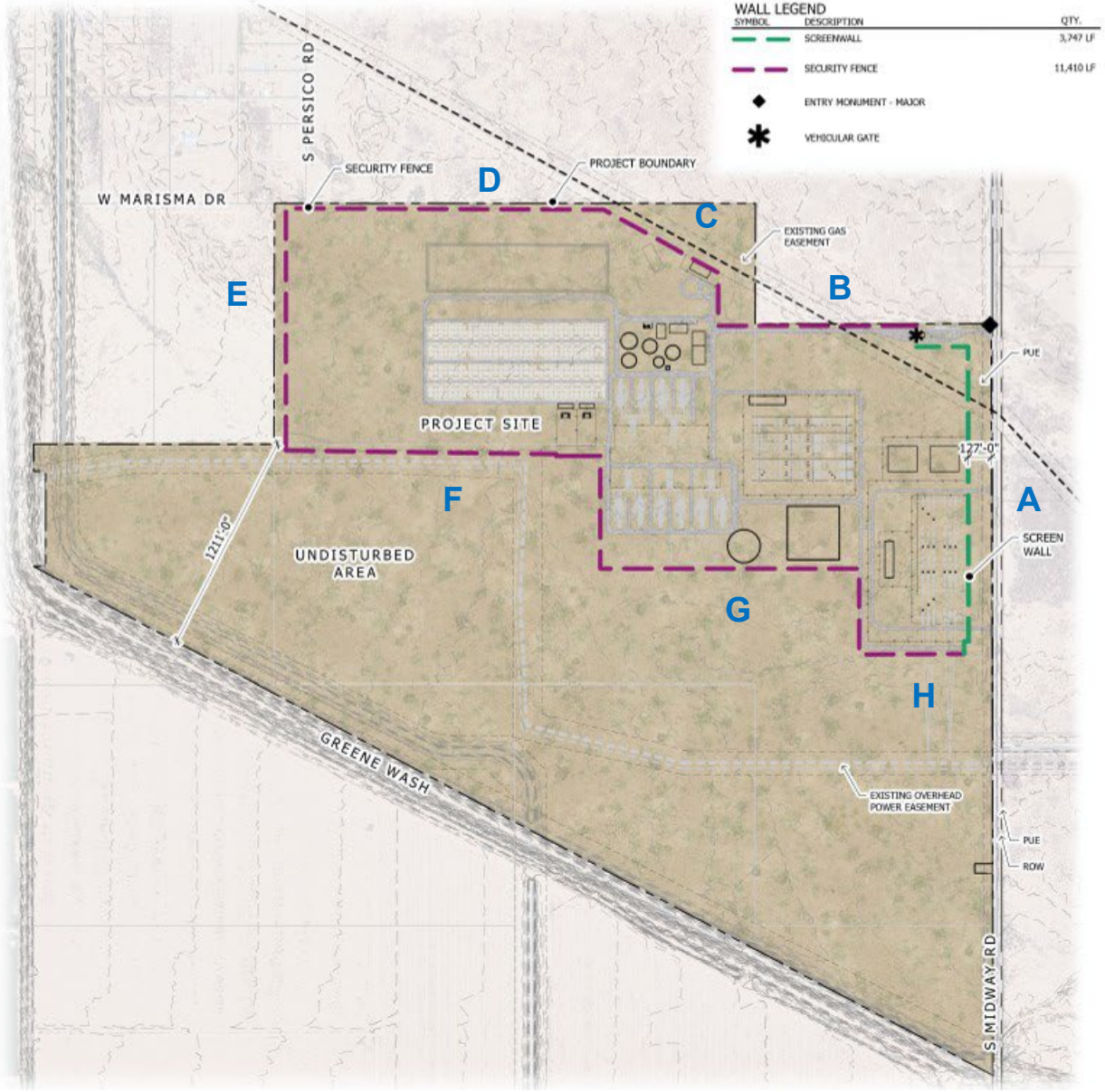


1 Security Fence
SCALE: 1/2"=1'-0"



A pre-fabricated sound wall, adjacent to Midway Road in location shown, will be installed along the property line. The exact wall design will be determined during the site plan phase. The wall will be approximately 8' tall and is intended to provide effective noise mitigation and aesthetic value.

2 Screen Wall



PAD Overlay

- Project conforms with the conceptual development plan, including open spaces and 200' landscape buffer adjacent rural or residential zoning

- **Permitted Uses:**
  - Power plants and ancillary offices
  - BESS
  - Electric substations and related equipment
  - Fire district stations and their accessory uses

Development Standards	I-3	PAD
Minimum Lot Area	None	None
Minimum Lot Width	None	None
Minimum Front Setback[1]	20'[1]	20
Minimum Side Setback (Residential)	25'[1]	25
Minimum Side Setback (other districts)	0'[1]	0
Minimum Rear Setback	10'[1]	10
Minimum Rear Setback Abutting Property Zoned Rural or Residential	25'[1]	25
Maximum Height	50'	50'[2]

Visual Perspective Rendering



PROJECT BELLA

WEST CORNMAN ROAD & SOUTH MAMMOTH DRIVE - LOOKING NORTHWEST - PROPOSED VIEW

THIS RENDERING IS BASED ON CURRENT INFORMATION AS OF THIS DATE AND IS SUBJECT TO CHANGE.

KOP# 2

Visual Environments

6/6/24

Figure E-3B

Visual Perspective Rendering



PROJECT BELLA

I-8 & SOUTH MONTGOMERY ROAD - LOOKING NORTHWEST - PROPOSED VIEW

THIS RENDERING IS BASED ON CURRENT INFORMATION AS OF THIS DATE AND IS SUBJECT TO CHANGE

KOP# 3

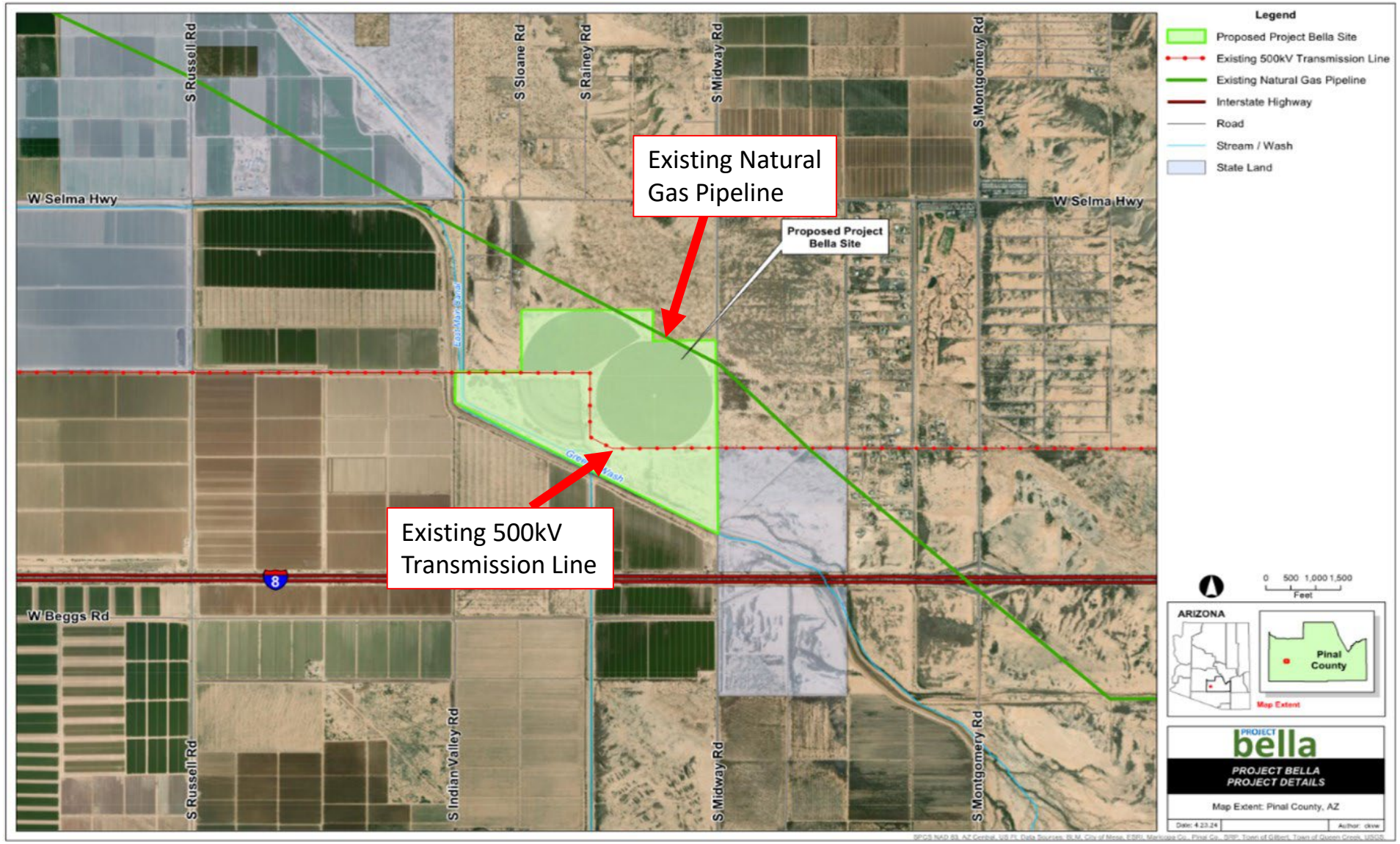
Visual Environments

6/6/24

Figure E-4B

Why this location?

Existing Infrastructure



Land Use Compatibility

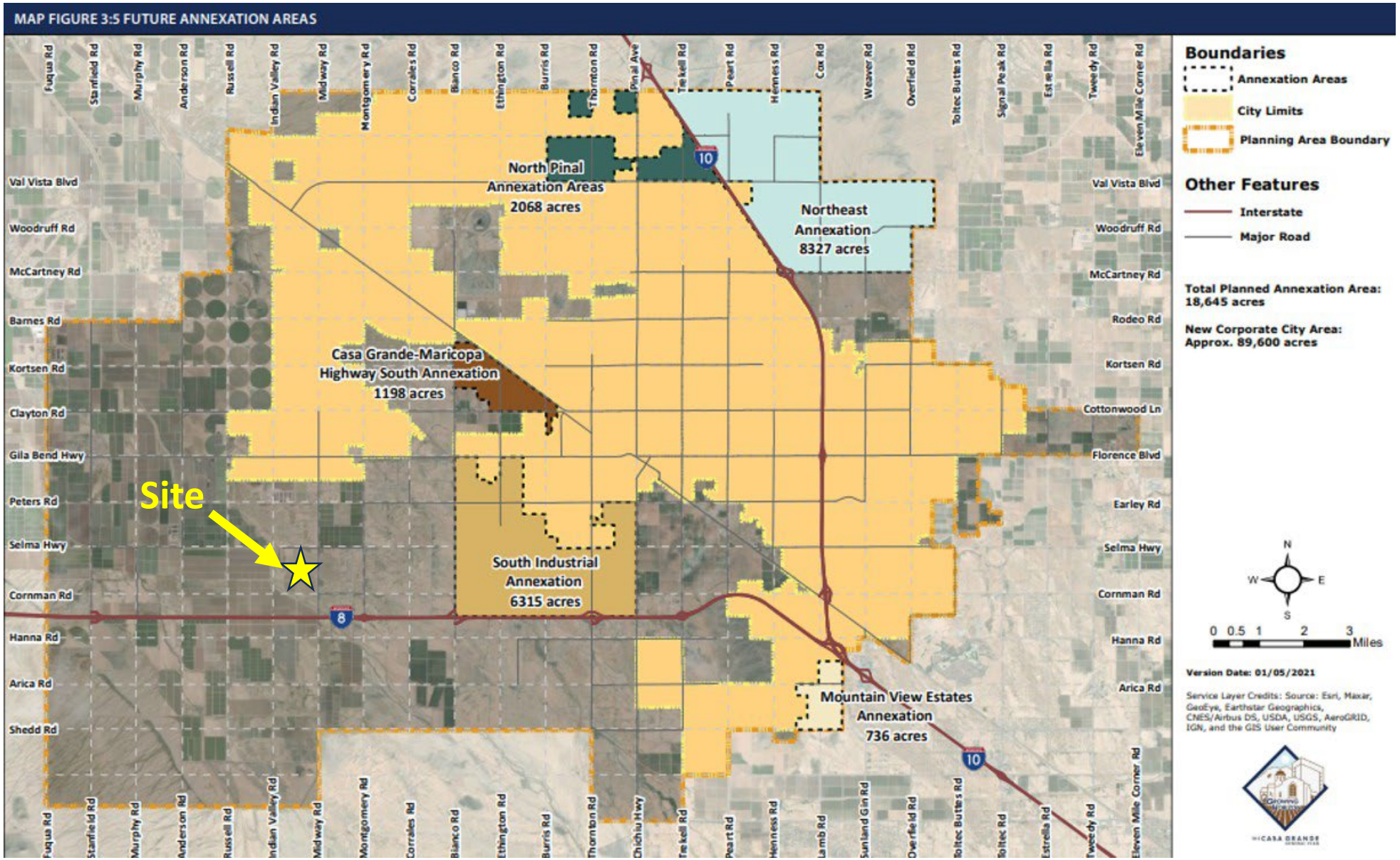
Project Bella's Separation from Residential Uses:



Similar Projects:

Generating Station	Single Family Homes within 1000ft	Single Family Homes within 1 Mile
Proposed Project Bella Generators	0	58
Desert Basin Generating Station	0	1183
Sundance Power Plant	1	36
Coolidge Generation Station	15	80
Copper Crossing Solar Ranch	225	479
Kyrene Generating Station	213	6517
Santan Generating Station	405	6357

I-8 Industrial Corridor



Land Use Attributes

Will Use Less Water than Current Uses

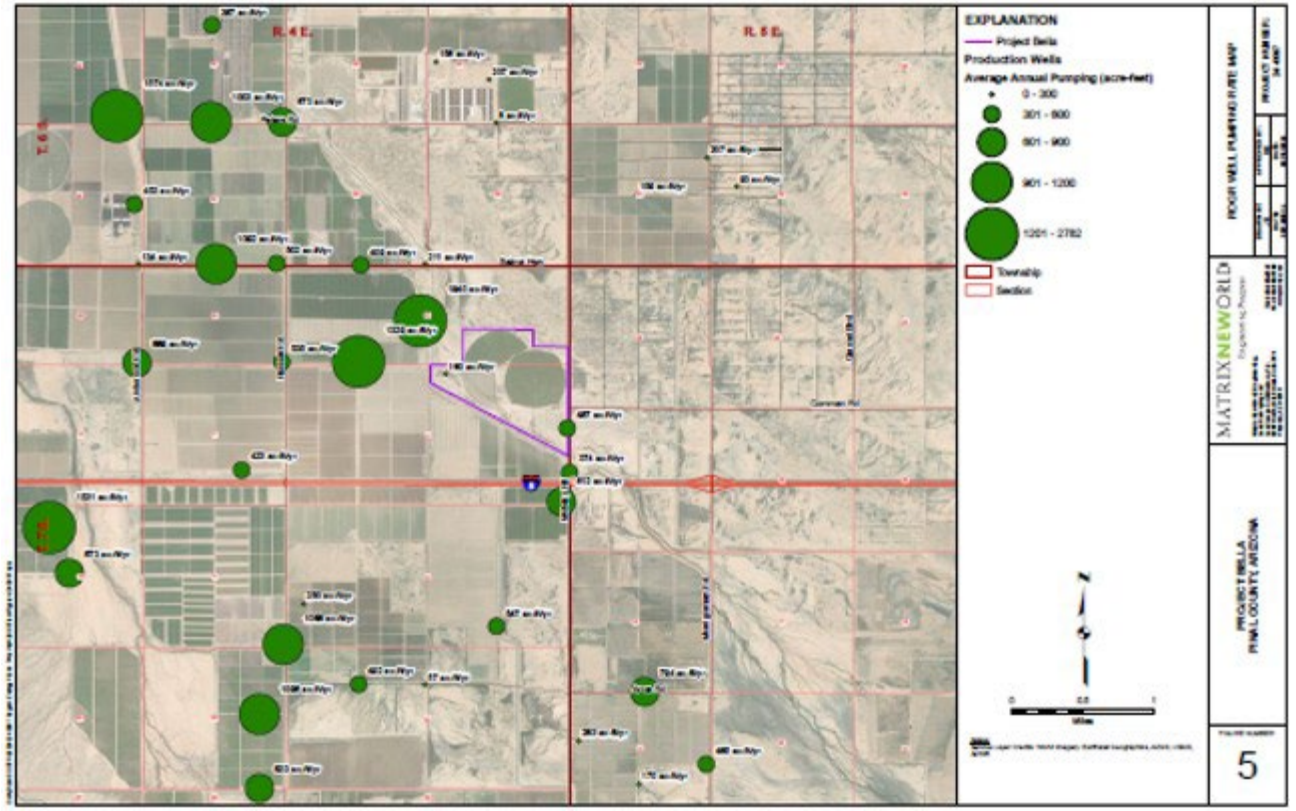
- Site consumption is already significantly less the other wells in the area
- Project designed to utilize 30 – 40 % less water than other similar CTs
- Study verifies **no** impact on existing domestic wells; operational limitations will result in overall reduction in total water usage

Current Use:
466 ac-ft (avg)

Projected Use:
205 – 320 ac-ft

Maximum Use:
420 ac-ft
over 3 yr avg

Decrease
10% vs Max
45% vs Projected



Air Permit Issued by Pinal County Air Quality Control District

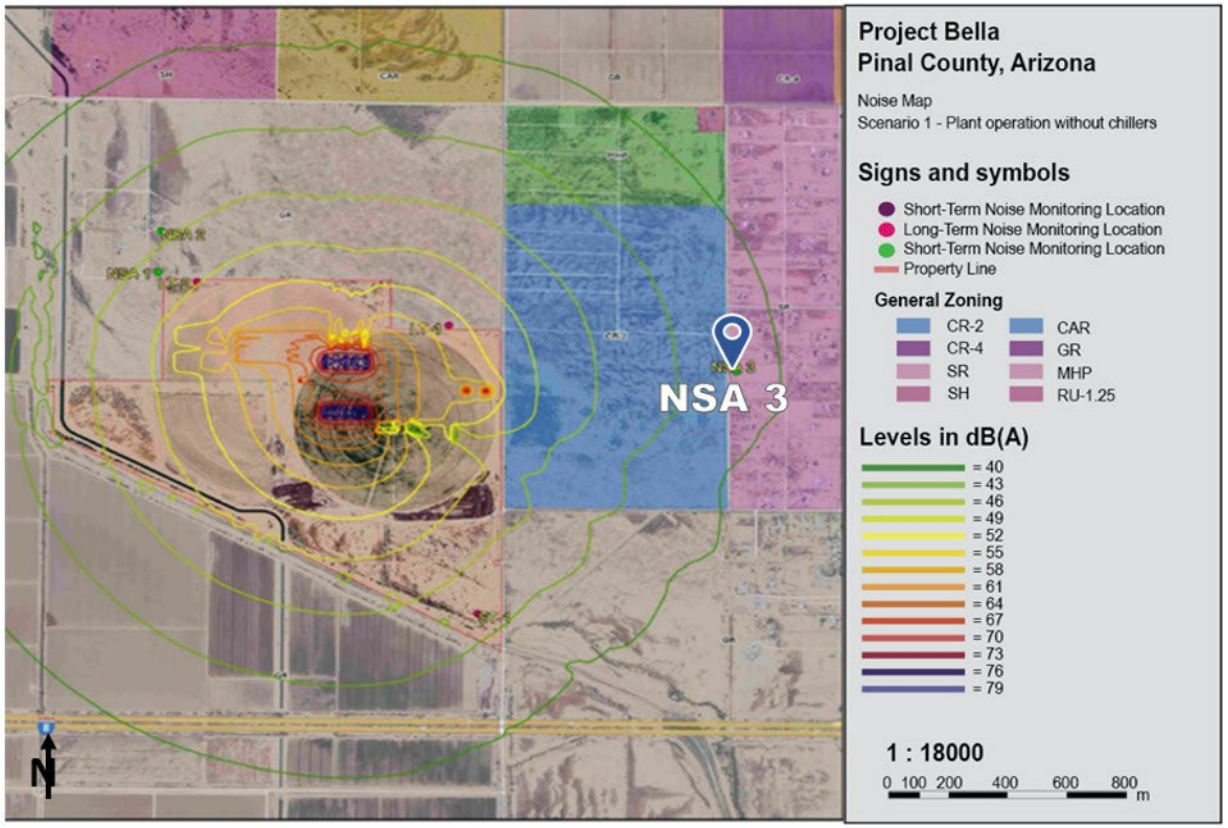
- Permit reviewed by PAQCD and EPA for compliance with NAAQS – standards designed to protect human and health and welfare.
- Establishes operational parameters and specified performance requirements.
- Continuous emissions monitoring, monthly reporting, and ongoing compliance verification.
- Control equipment includes selective catalytic reduction (SCR) and oxidation catalyst technology for the control of NO_X, VOC, and CO emissions.



Will Comply with Pinal County Noise Ordinance

NSA 3

Residence 0.81 miles NE of the nearest proposed Project Bella turbine



Compliant with Pinal County Ordinance

Below residential limits (65 dBA day / 60 dBA night)

Below EPA Guideline

- Modeling identifies cumulative increase of only 1.5 decibels over existing background noise (barely perceptible)
- Sound study will be performed within 120 days of commercial operation to verify modeling
- Must provide additional sound mitigation measures if levels exceed ordinance

Project Bella Community Foundation

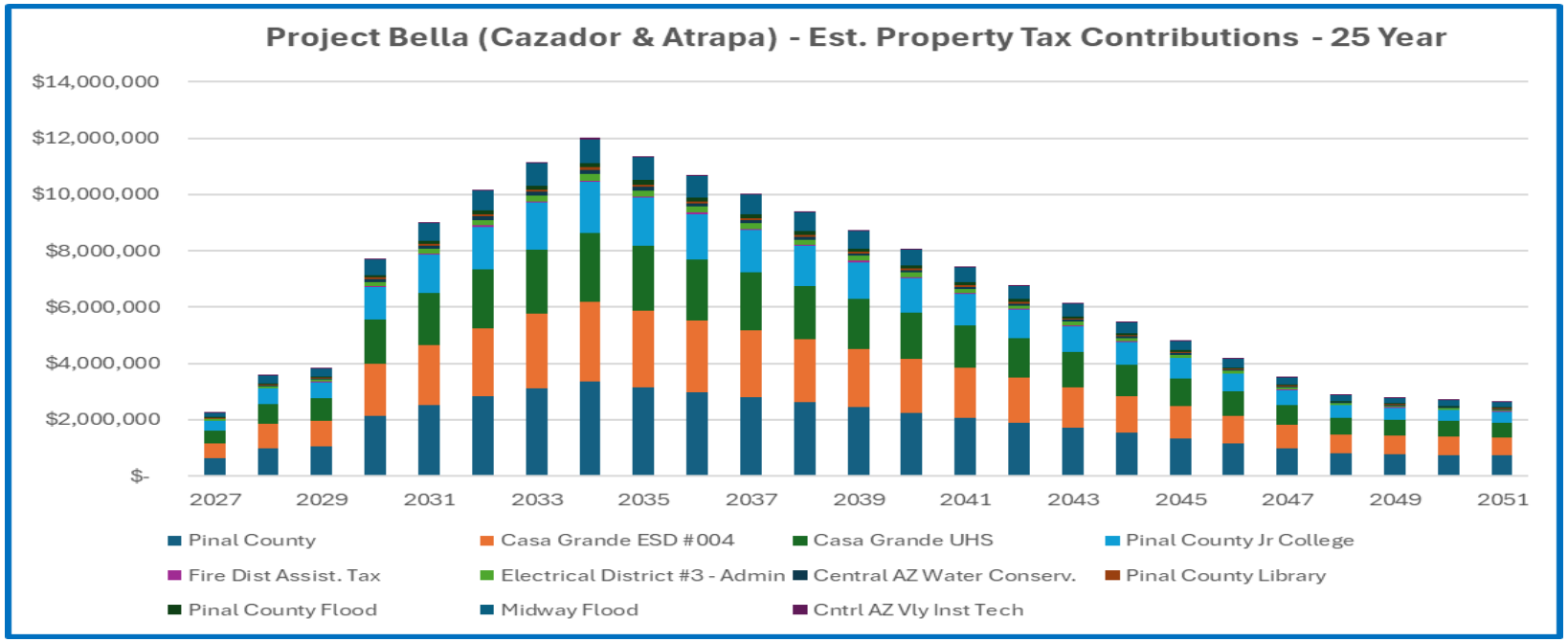
- Project Bella will establish a Community Foundation/Working Group to provide project updates / transparent reporting and funding for community improvement grants
- Committed to funding $4.1 million over a 10-year period
- Grants administered by an established, independent Community Foundation
- Potential grant-eligible projects:
  - Community Landscaping / Fencing (non-project related)
  - Community beautification (e.g. trash removal)
  - Energy efficiency (e.g. new windows for homes within 1 mile)
  - Electrical bill assistance
  - Well program (water quality testing, well assessment, rehabilitation)
  - Funding for independent facilitator and operational communications

Community Fire and EMS Equipment Donation

- Collaborating with Pinal County Fire and Medical Authority (PCFMA) to establish emergency response services for Project and surrounding area.
- Project will provide up-front fee to support expansion of PCFMA services, as well as commitment to ongoing fee assessment.
- Project will provide 20+ acre parcel at no cost to community for location of a local fire and safety response office, if desired.
- Project will provide funding for EMS equipment for the benefit of the community prior to project commencement of operations.
- This is in addition to and separate from the self-contained, Project specific fire detection and suppression systems.

Substantial Fiscal Impact for County

- Estimated **$167,000,000** of new tax revenue
- Average annual tax revenue = **Approx. $6,700,000**
  - Tax revenue currently generated from the site's Ag use = $4,500



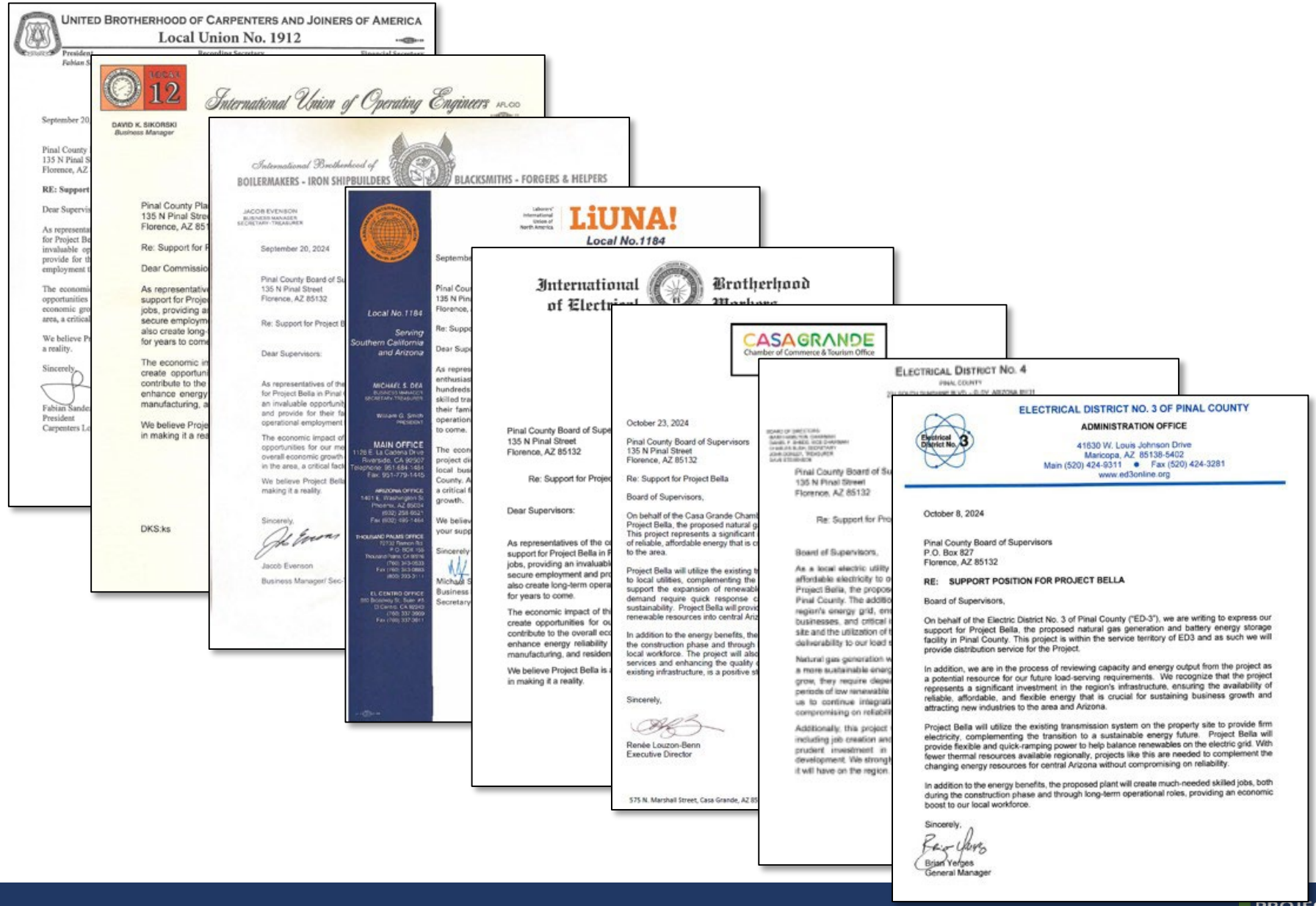
Significant Job Creator

- Hundreds of jobs created through construction phase
- ~14 full time employees during operations
- Skilled, high-wage employees

Project Bella Staffing Plan

	Positions	Initial Salary	Total with Loading (w Taxes & Benefits)
Plant Manager	1	$ 175,000.00	$ 250,250.00
Admin Assistant	1	$ 60,000.00	$ 85,800.00
Electrical/Controls Engineer	1	$ 145,000.00	$ 207,350.00
Mechanical Engineer	1	$ 140,000.00	$ 200,200.00
Compliance Engineer	1	$ 130,000.00	$ 185,900.00
O&M Supervisor	1	$ 120,000.00	$ 171,600.00
O&M Tech/operator	6	$ 95,000.00	$ 815,100.00
O&M tech/I&C	2	$ 105,000.00	$ 300,300.00
Total	14		$ 2,216,500.00

Support for Project Bella



UNITED BROTHERHOOD OF CARPENTERS AND JOINERS OF AMERICA
Local Union No. 1912

LOCAL 12
International Union of Operating Engineers AFL-CIO
DAVID K. SIKORSKI
Business Manager

International Brotherhood of
BOILERMAKERS - IRON SHIPBUILDERS BLACKSMITHS - FORGERS & HELPERS
JACOB EVENSON
September 20, 2024
Pinal County Board of Supervisors
135 N Pinal Street
Florence, AZ 85132
Re: Support for Project Bella
Dear Supervisors:
As representatives of the
Sincerely,
Jacob Evenson
Business Manager/ Sec-

Local No.1184
Serving Southern California and Arizona
MICHAEL S. DEA
MAIN OFFICE

LiUNA!
Local No.1184

International Brotherhood of Electrical Workers

Pinal County Board of Supe
135 N Pinal Street
Florence, AZ 85132
Re: Support for Projec
Dear Supervisors:
As representatives of the c
support for Project Bella in P
jobs, providing an invaluabl
secure employment and pr
also create long-term opera
for years to come.
The economic impact of th
create opportunities for ou
contribute to the overall eco
enhance energy reliability
manufacturing, and residen
We believe Project Bella is
in making it a reality.
Sincerely,
Renée Louzon-Benn
Executive Director
575 N. Marshall Street, Casa Grande, AZ 85

October 23, 2024
Pinal County Board of Supervisors
135 N Pinal Street
Florence, AZ 85132
Re: Support for Project Bella
Board of Supervisors,
On behalf of the Casa Grande Chami
Project Bella, the proposed natural g
This project represents a significant
of reliable, affordable energy that is c
to the area.
Project Bella will utilize the existing t
to local utilities, complementing the
support the expansion of renewabl
demand require quick response c
sustainability. Project Bella will provi
renewable resources into central Ariz
In addition to the energy benefits, the
the construction phase and through
local workforce. The project will also
services and enhancing the quality
existing infrastructure, is a positive st
Sincerely,
Renée Louzon-Benn
Executive Director
575 N. Marshall Street, Casa Grande, AZ 85

CASAGRANDE
Chamber of Commerce & Tourism Office

ELECTRICAL DISTRICT NO. 4
PINAL COUNTY
Pinal County Board of Su
135 N Pinal Street
Florence, AZ 85132
Re: Support for Pro
Board of Supervisors,
As a local electric utility
affordable electricity to o
Project Bella, the propos
Pinal County. The additio
region's energy grid, en
businesses, and critical i
site and the utilization of t
deliverability to our load c
Natural gas generation w
a more sustainable energ
grow, they require depe
periods of low renewable
us to continue integrati
compromising on reliabili
Additionally, this project
including job creation an
prudent investment in
development. We strongl
it will have on the region.

ELECTRICAL DISTRICT NO. 3 OF PINAL COUNTY
ADMINISTRATION OFFICE
41630 W. Louis Johnson Drive
Maricopa, AZ 85138-5402
Main (520) 424-9311 • Fax (520) 424-3281
www.ed3online.org

October 8, 2024

Pinal County Board of Supervisors
P.O. Box 827
Florence, AZ 85132

RE: SUPPORT POSITION FOR PROJECT BELLA

Board of Supervisors,

On behalf of the Electric District No. 3 of Pinal County ("ED-3"), we are writing to express our support for Project Bella, the proposed natural gas generation and battery energy storage facility in Pinal County. This project is within the service territory of ED3 and as such we will provide distribution service for the Project.

In addition, we are in the process of reviewing capacity and energy output from the project as a potential resource for our future load-serving requirements. We recognize that the project represents a significant investment in the region's infrastructure, ensuring the availability of reliable, affordable, and flexible energy that is crucial for sustaining business growth and attracting new industries to the area and Arizona.

Project Bella will utilize the existing transmission system on the property site to provide firm electricity, complementing the transition to a sustainable energy future. Project Bella will provide flexible and quick-ramping power to help balance renewables on the electric grid. With fewer thermal resources available regionally, projects like this are needed to complement the changing energy resources for central Arizona without compromising on reliability.

In addition to the energy benefits, the proposed plant will create much-needed skilled jobs, both during the construction phase and through long-term operational roles, providing an economic boost to our local workforce.

Sincerely,
Brian Yerges
General Manager

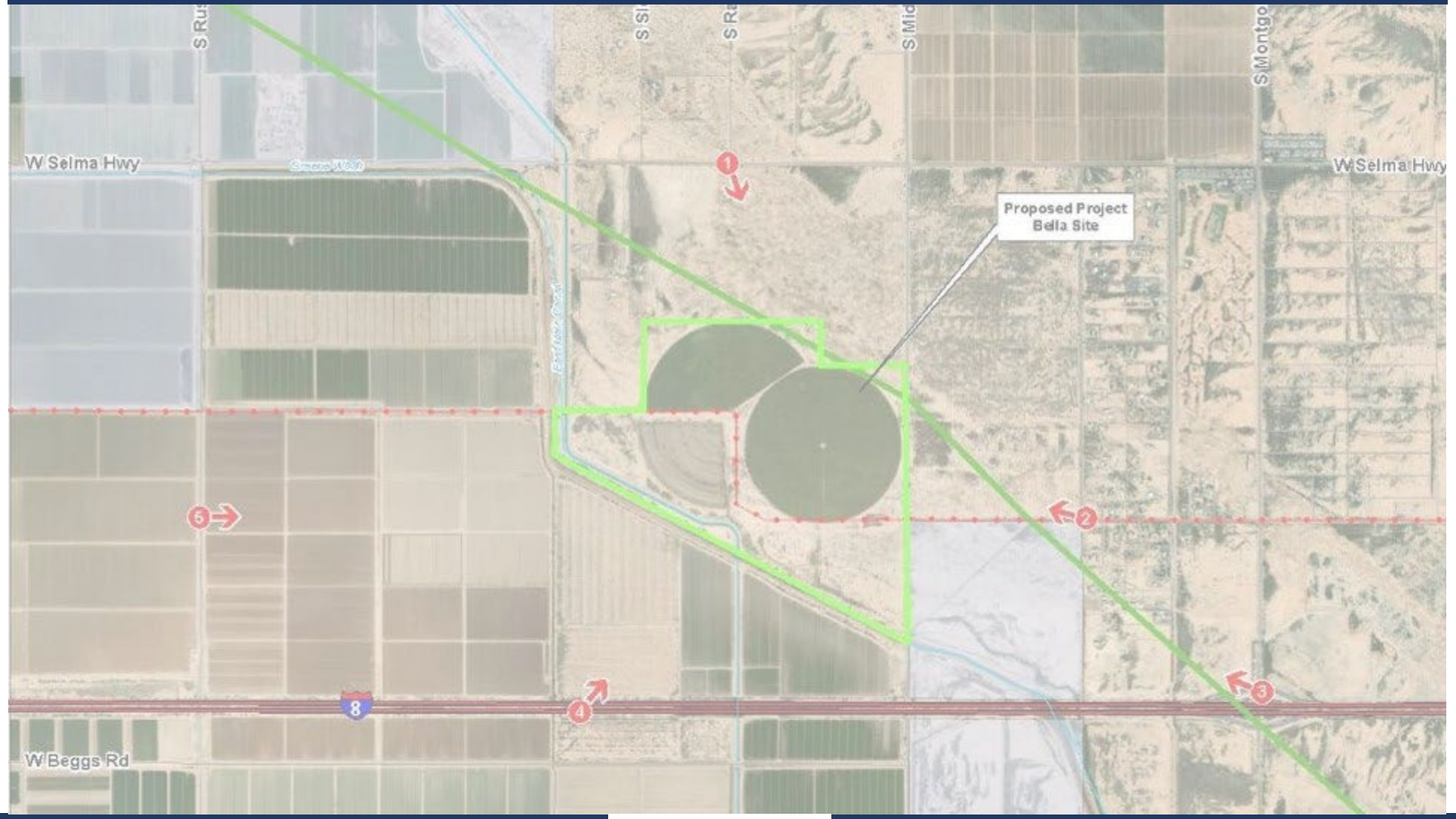
R24

Project Benefits

- Helps meet growing regional energy demand
- No need for new infrastructure
- Less land intensive than solar
- Designed to minimize water consumption
- Minimal noise / visual impact
- Opportunity to provide emergency response solution for community
- Job creation
- Substantial positive fiscal impact to County **(+$167,000,000**)
- Unanimous recommendation of approval from planning and zoning commission

R25

Questions?


W Selma Hwy
W Selma Hwy
Proposed Project
Bella Site
W Beggs Rd
1
2
3
4
5
8

Community Engagement

Central Arizona College

PINAL ALLIANCE FOR ECONOMIC GROWTH

BOYS & GIRLS CLUBS OF THE SUN CORRIDOR

YES 486 Maintain Our Roads Without Raising Taxes

CASA GRANDE Chamber of Commerce & Tourism Office

PINAL PARTNERSHIP Uniting the Vision for Pinal County

R27

Unanimous Recommendation of Approval from ACC Line Siting Committee

- Committee recommended approval of Project Bella by vote of **11-0** after:
  - 4 days of expert testimony
  - 900 pages of detailed filings
  - 2 in-person public comment sessions
  - Site visit by entire Line Siting Committee to see firsthand the site context
- **ACC approved CEC for Project Bella on October 8th**

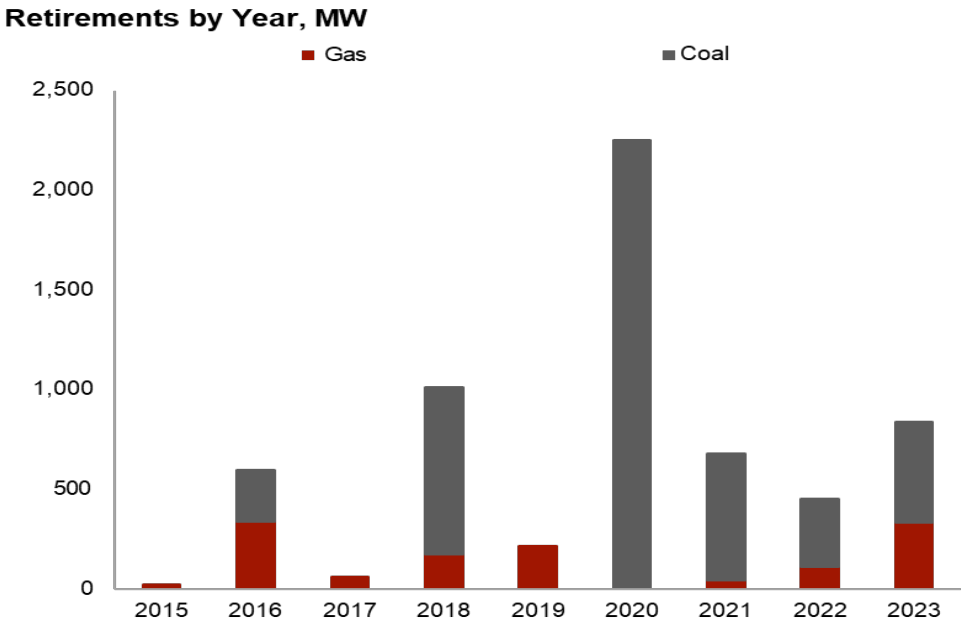
Significantly More Land Efficient than Solar

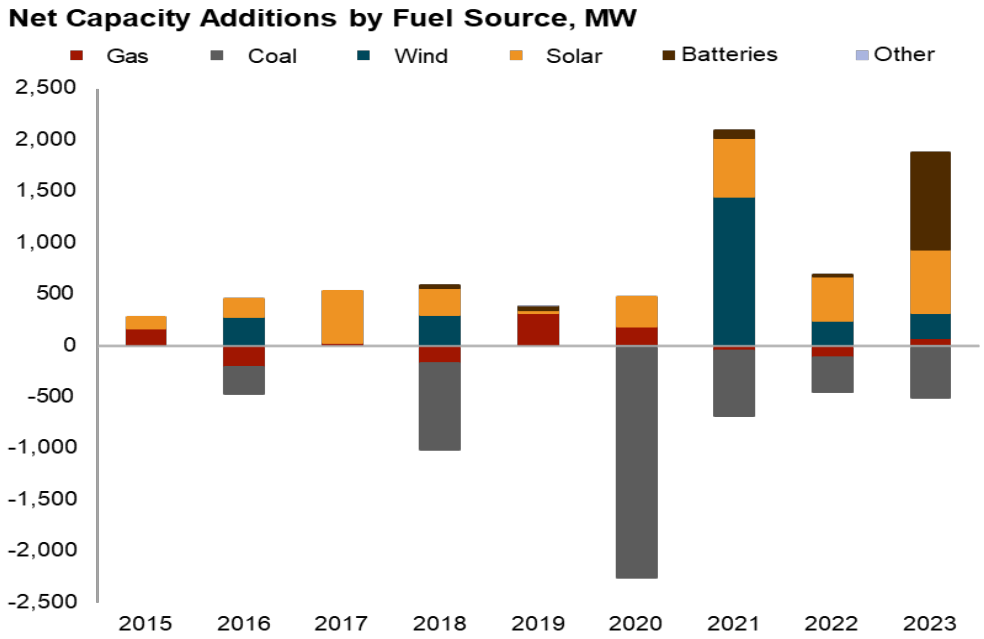
Pinal County Major Amendment Projects

Project "Name"	Application Reference	Acres	Solar	BESS		Total Peak MW	MW per Acre
Avantus (Ore Town Solar)	PZ PA 005-24	1,227	145	145		145	0.12
Cypress Creek (Cactus Flower)	PZ PA 007-24	2,148	270	270		270	0.13
Copia (Tap Solar)	PZ PA 009-24	1,092	1,000	1,000		1,000	0.92
Copia (Frontier East Solar)	PZ PA 011-24	318	50	300		300	0.94
Copia (Sunhill)	PZ PA 012-24	96	0	200		200	2.08
Total		**4,881**	**1,465**	**1,915**		**1,915**	0.39

Project "Name"		Acres	Solar	BESS	Reliability Capacity	Total Peak MW	MW per Acre
Project Bella	PZ PA 008-24	350	0	440	480	928	2.65

Retirement of Coal Fired Power





- The Southwest grid is undergoing a significant resource transition, with over 8,149 MW of baseload coal resources retiring during the period 2019–2032 to a more sustainable energy portfolio at a time in which load-growth is at historical levels.

- The retirement of these end-of-life coal facilities **cannot be reliably completed** in a medium to high-growth environment that Arizona is experiencing **without new resource adequacy generators**. To date, energy has been replaced with intermittent renewables.

- Project Bella represents a near-term development project, which can be fully commercially operational by mid-2028 and **directly contribute to reliability reserves as well as sustainability, low-carbon energy supply transformation** by providing a cost-effective, reliable electric capacity and ancillary services resource, **while embracing priority dispatch and utilization of low-carbon renewable energy.**

Renewable Energy Integration - Duck Curve

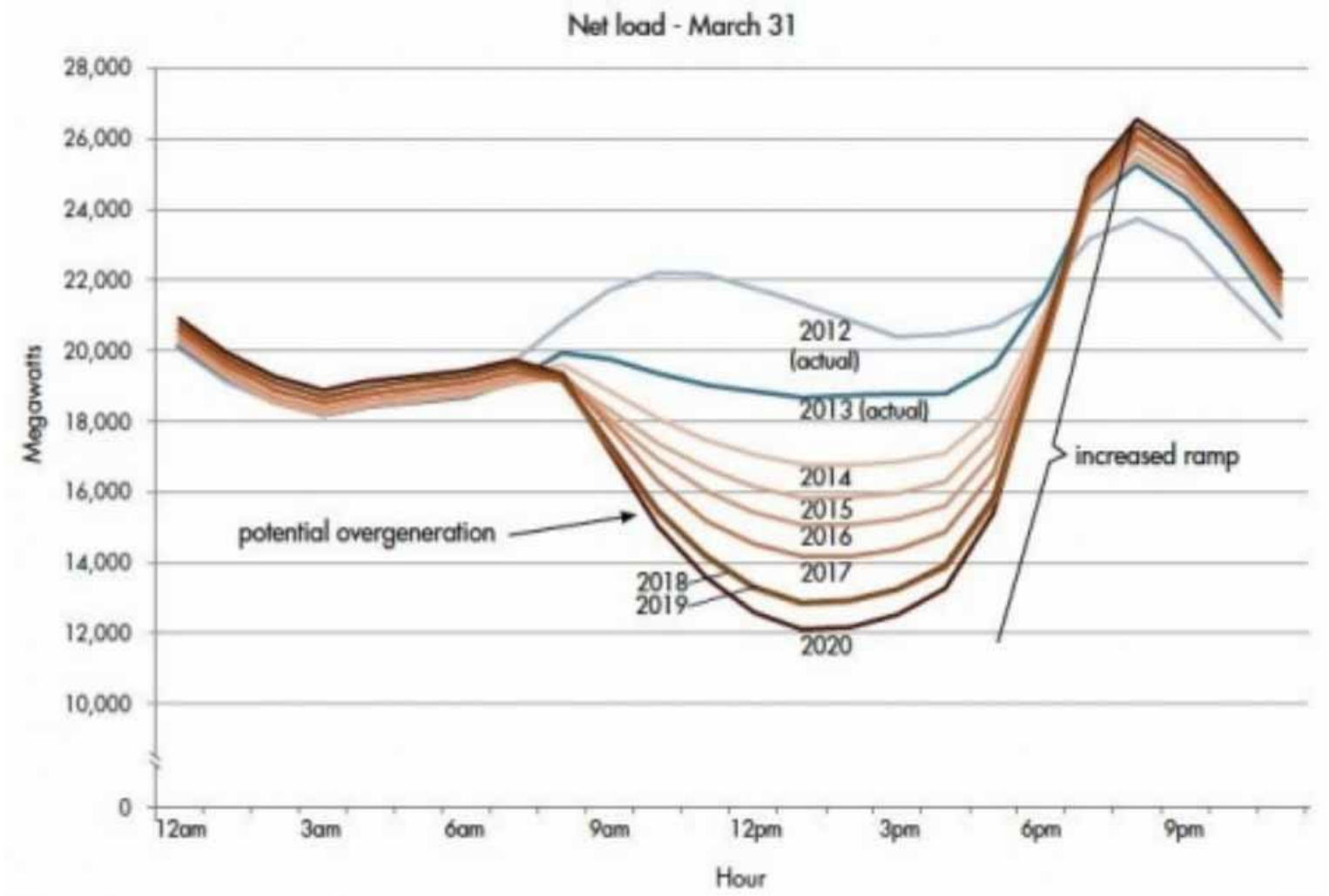
Source:
Arizona Solar Center

The Solar Generation penetration provides significant energy during the periods of 0900 to 1700 and dropping steeply by 1800.

At the same time load is increasing.

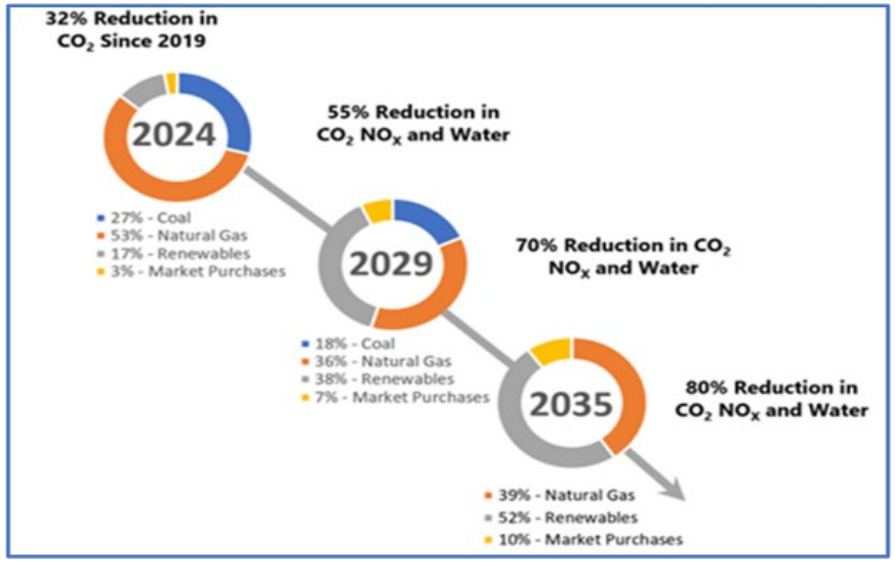
Therefore, Reliability Resources are needed to ramp as much as 16,000 MW.

This means about 10,000 MW to offset the intermittent solar decline and approximately 6,000 to meet the evening peak load from the "baseline".



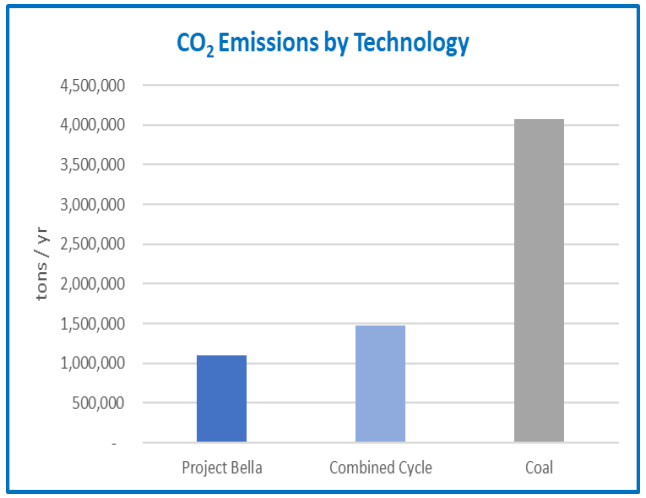
Renewables have experienced strong growth in recent years as the region aims to decarbonize. Since 2015, the region has grown from 2.3 GW of solar, wind and batteries to nearly **9 GW**.

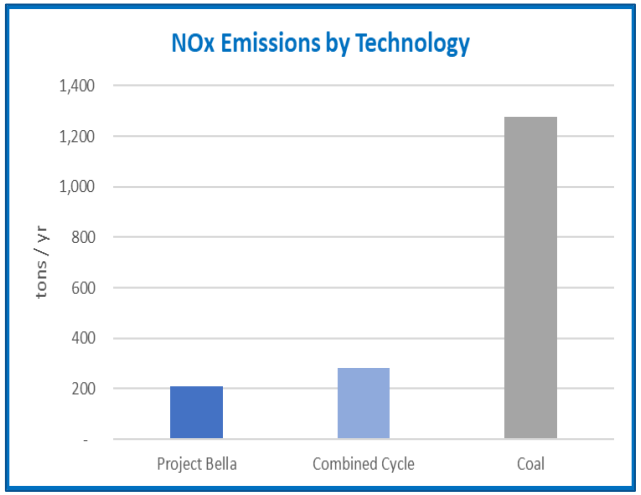
Minimal Environmental Impact

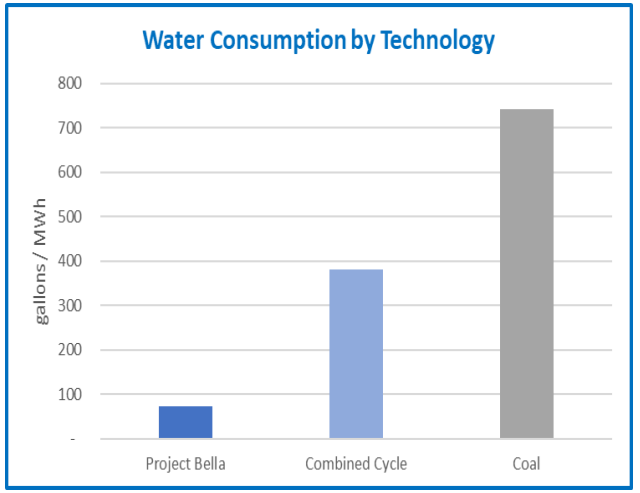


Source: TEP 2023 IRP

- Minimal Water Consumption - 78 % less than a CCGT
  - 10% Less water consumption than current Ag use
- Low Emissions (NOx and CO Control Systems)
  - EPA and Pinal County review completed
- Complements the priority utilization of renewable energy with resource adequacy capacity
- Provides reliability reserve margin to offset retirement of end-of-life coal units
- Commitment to meet rural zoning ordinance for sound
- Lower Stack (65 ft) – visual and noise mitigation
- Utilizes existing infrastructure with electrical transmission and natural gas pipeline on-site







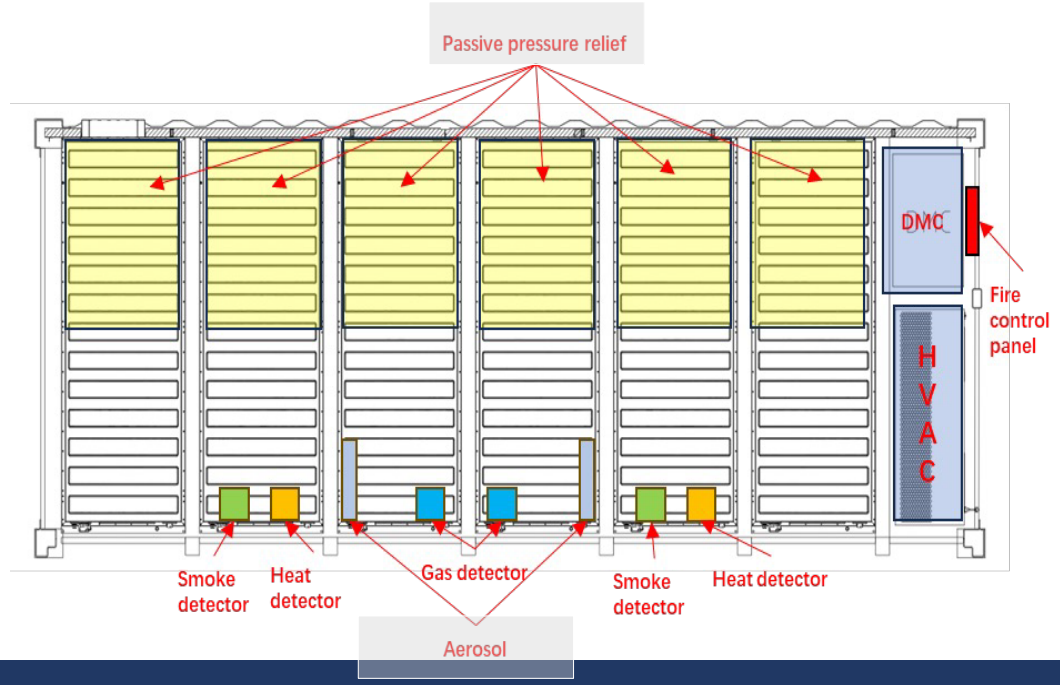
Community Outreach

- Open Houses (1 mile radius notice)
  - Virtual Open House April 29, 2024
  - In-Person Open House April 30, 2024
  - Virtual Open House June/July 2024
  - In-Person Open House June/July 2024
  - In-Person Open House May 2025
- Informational Hotline
  - **1-833-815-4853**
- Project Website
  - https://projectbellaaz.com/
- Project Social Media
  - https://www.facebook.com/ProjectBellaAZ
- ACC Siting Committee Hearings
  - August 12-16th, 2024
  - Francisco Grande Hotel and Golf Resort
- ACC Public Hearings
  - September 2024



Prevention, Monitoring, Detection and Isolation for Enhanced Safety

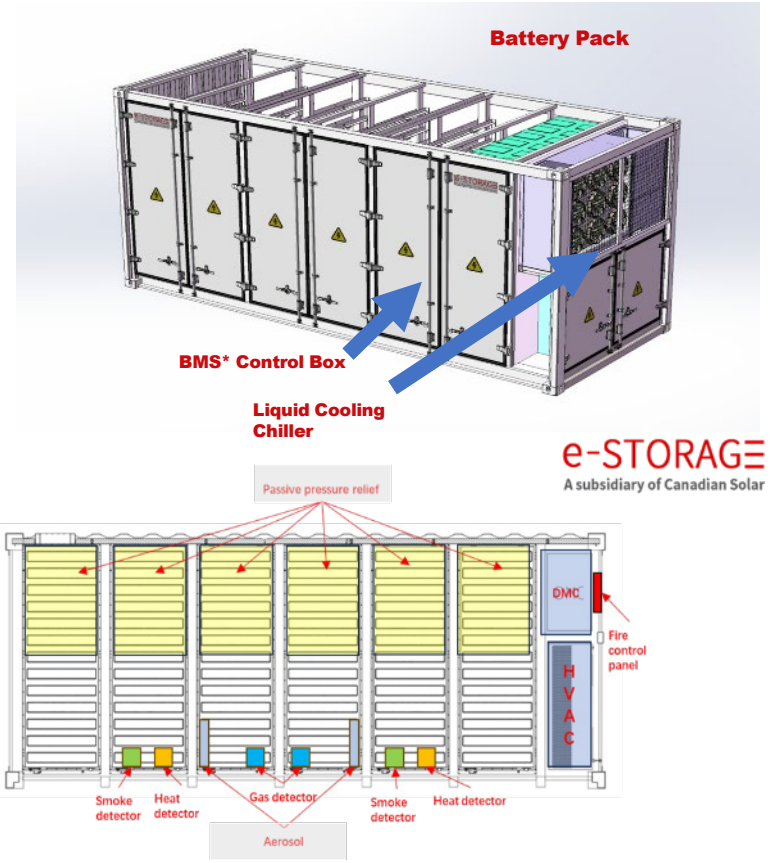
Monitoring	Heat and smoke detection monitoring – dual independent operation
Gas Detection	Combustible gas detection – dual independent operation
Prevention & Mitigation	Active air ventilation and liquid-cooled systems
Fire Alarm	Local strobes and alarms, remote to master panel and EMS
UPS Backup	Built in UPS for 24+ hrs backup for fire alarm, 2+ hrs backup for ventilation



- ✓ Designed to meet the newest safety codes globally
- ✓ Complete fire propagation verification based on the latest UL 9540A: 2019 (4th Edition)
- ✓ Fully integrated, multi-level BMS monitoring and prevention systems with active ventilation and gas detection systems
- ✓ Integrated Liquid Cooling System, designed for optimal battery temperature regulation
- ✓ Certifications Include: UL9540, UL9540A, UL1741 SA-SB, UL1973, NFPA 68 / 69
- ✓ Emergency Response Plan (ERP)
- ✓ Hazard Mitigation Analysis (HMA)
- ✓ First responder training for fire department, AHJ, site operator, O&M teams in coordination with -

ESRG ENERGY SAFETY RESPONSE GROUP

Grid Charged Battery Energy Storage System Attributes



e-Storage Solbank lithium-ion battery storage system: self contained units that store electricity via an invertor charging process during non-peak periods in order to discharge electricity back to the electrical grid during peak periods, typically post solar generation hours.

- Durable, proven LFP battery cell for quick charge and discharge (4 hour) system managed through an active balancing battery management system to ensure continuous balancing during daily operations.

- Integrated Liquid Cooling-Heating System, designed for optimal battery temperature. Integrated multi-level BMS monitoring and fire detection, units provide timely report of battery status and fire detection, linked actions with other system components;

- BMS and Controller Integration, seamlessly integrated for real-time monitoring and issue reporting. Complete fire propagation verification from cell, module (pack) to unit level based on the latest UL 9540A: 2019 (4th Edition). Designed to meet the newest fire and safety codes. NFPA69, NFPA855 and NFPA72 compliant. Explosion prevention with gas detection, NFPA69 rated.

- Site Specific Fire Safety Design includes Emergency Response Plan (ERP); Hazard Mitigation Analysis (HMA); First responder training for fire department, AHJ, site operator, O&M teams; and Heat Flux Analysis (HFA) for verification of layout design per site conditions.

Seguro Energy Partners

- Provides Asset Management and Energy Management Services for over 3,000 MW of Operating Electrical Generation and Fuel Supply Management Services for 8,400 MW of Gas-fired Generation, Consuming approximately 1.3 Bcf / day.

- Services and Primary Commercial Activities Include:
  - Energy Infrastructure Development / Valuation / Acquisition
  - Asset Optimization / Contract Management
  - Transactional Deal Structuring / Origination / Trading
  - Physical Commodity Logistics /Operational Interface / Efficiency Enhancement.
  - Qualitative and Quantitative Analysis Embracing Market and Industry Trends / Asset Modeling & Forecasting.
  - Risk Management / Cost Reduction / Budgeting
  - Risk Governance Compliance / Financial Reporting

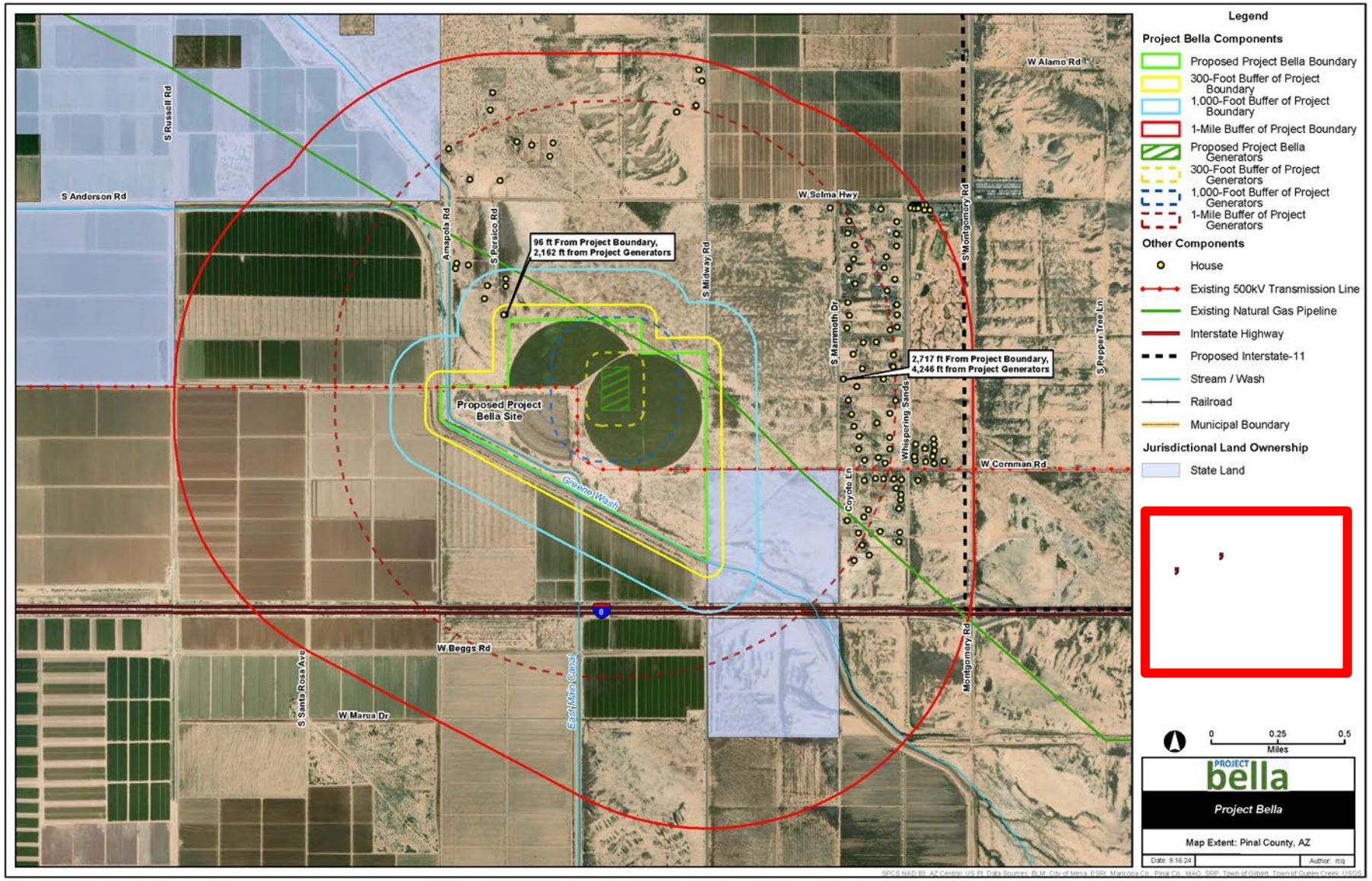
Appendix A
Demonstration of Land Use Compatibility

Appendix A demonstrates land use compatibility. Sundance and Coolidge (Pinal County) demonstrate rural life / land use compatibility in that power plants do not induce development.

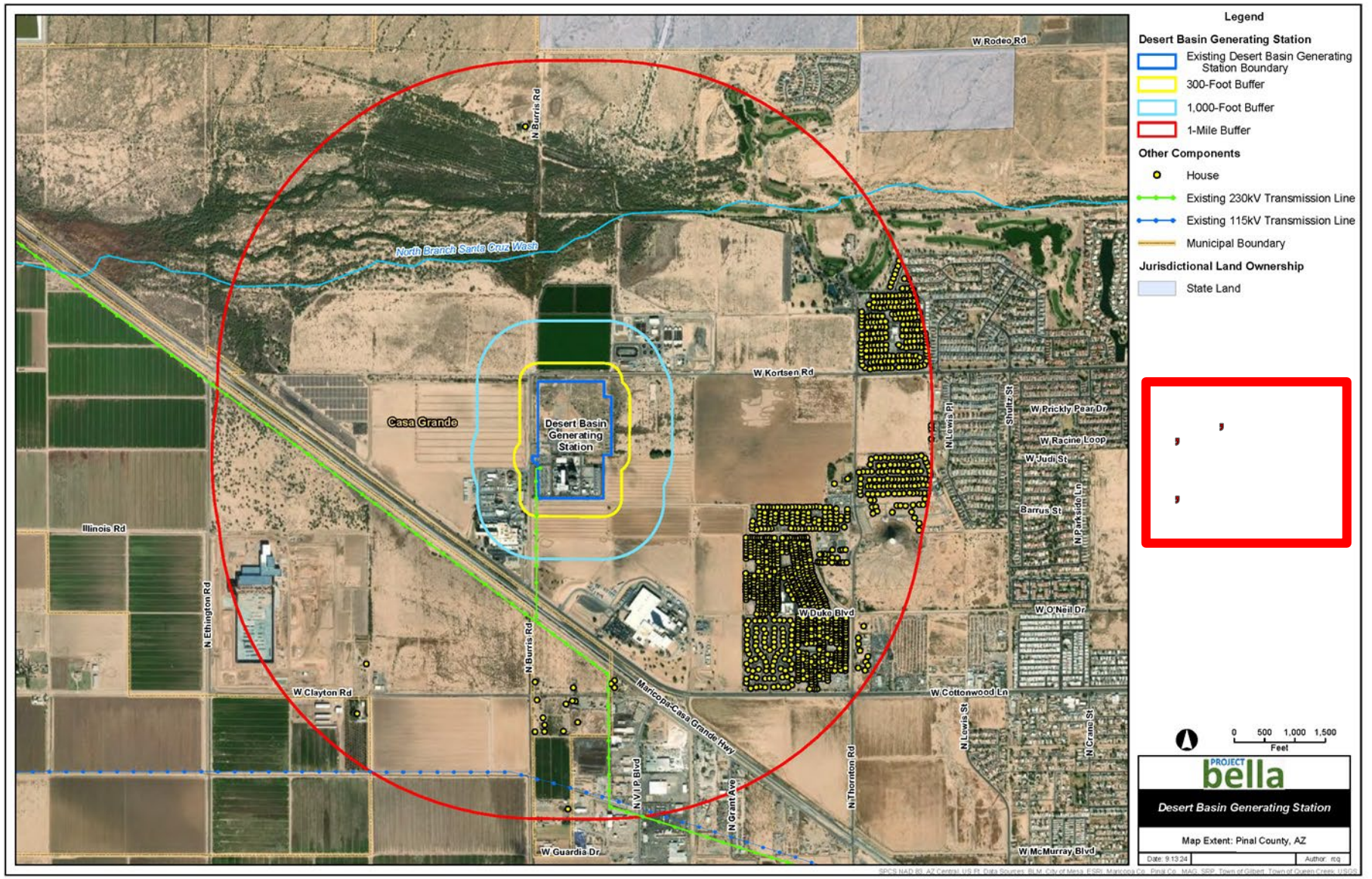
Generation such as Desert Basin (Casa Grande), Kyrene and Santan with proximity to high density residential, demonstrates that emissions from natural gas generation does not present significant human health impacts and property value is not negatively impacted.

Generating Station	Single Family Homes within 1000ft	Single Family Homes within 1 Mile
Proposed Project Bella Generators	0	58
Desert Basin Generating Station	0	1183
Sundance Power Plant	1	36
Coolidge Generation Station	15	80
Copper Crossing Solar Ranch	225	479
Kyrene Generating Station	213	6517
Santan Generating Station	405	6357

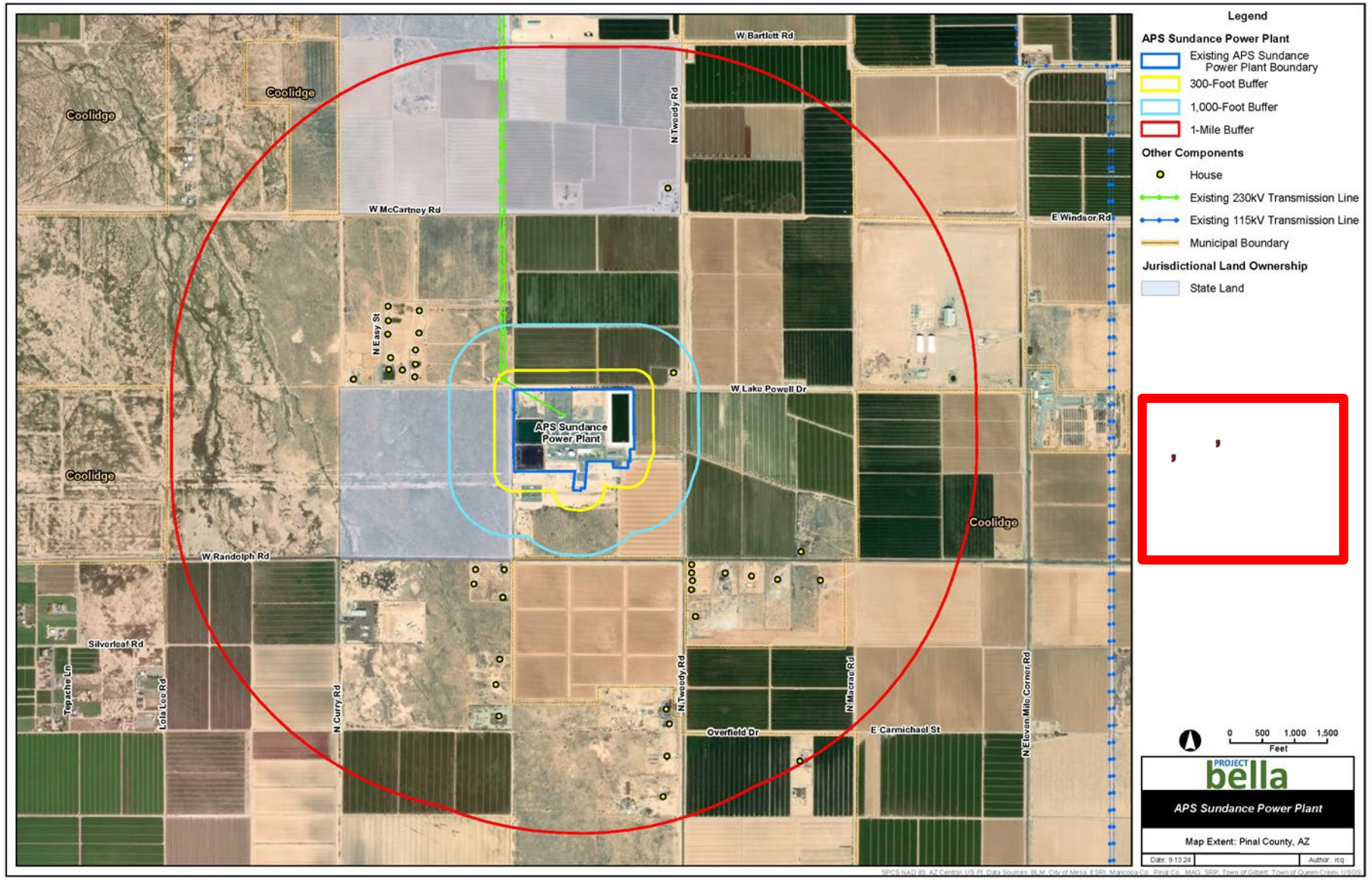
Project Bella – Proximity to Residential



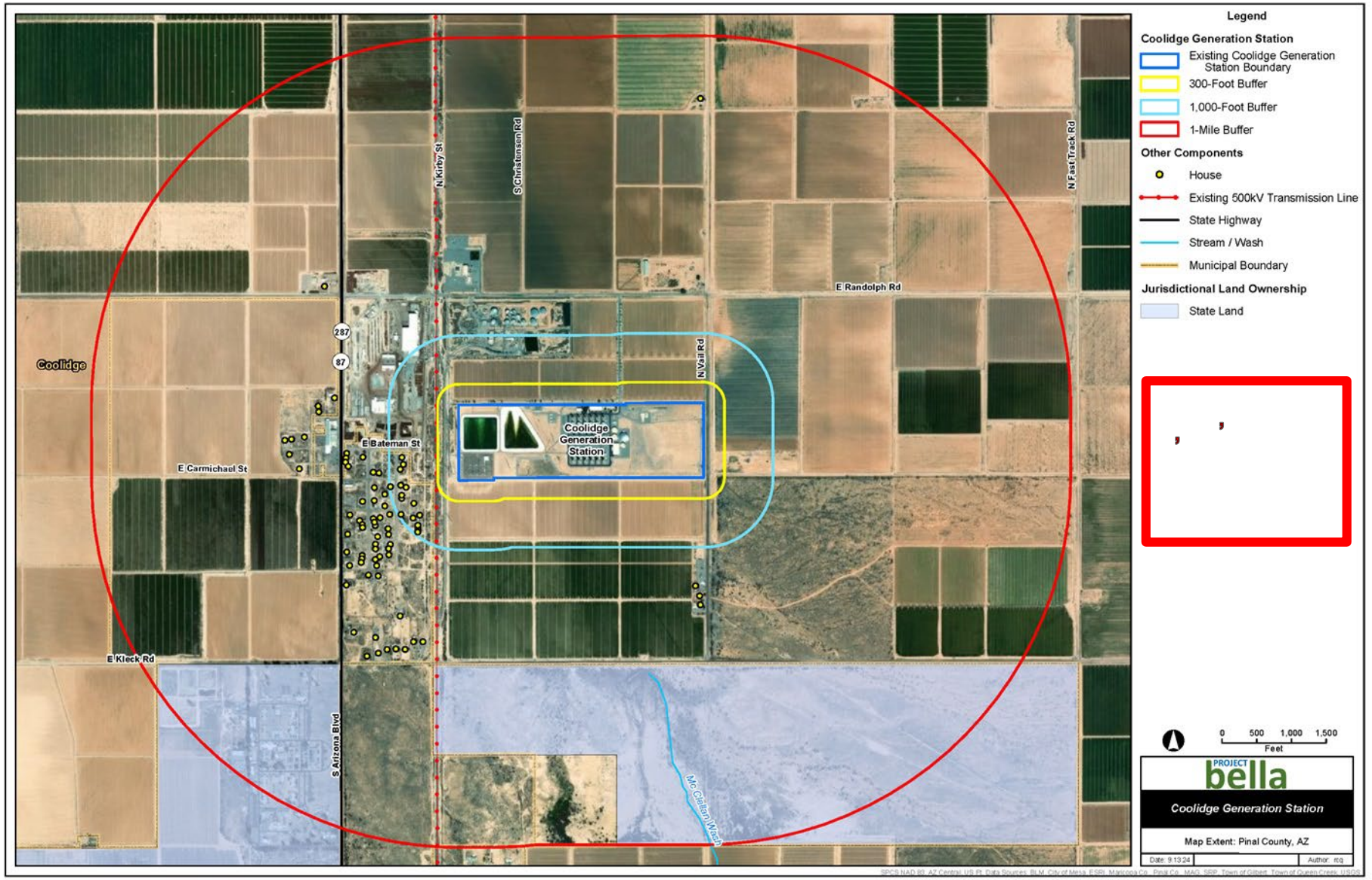
Desert Basin Generating Station – Proximity to Residential



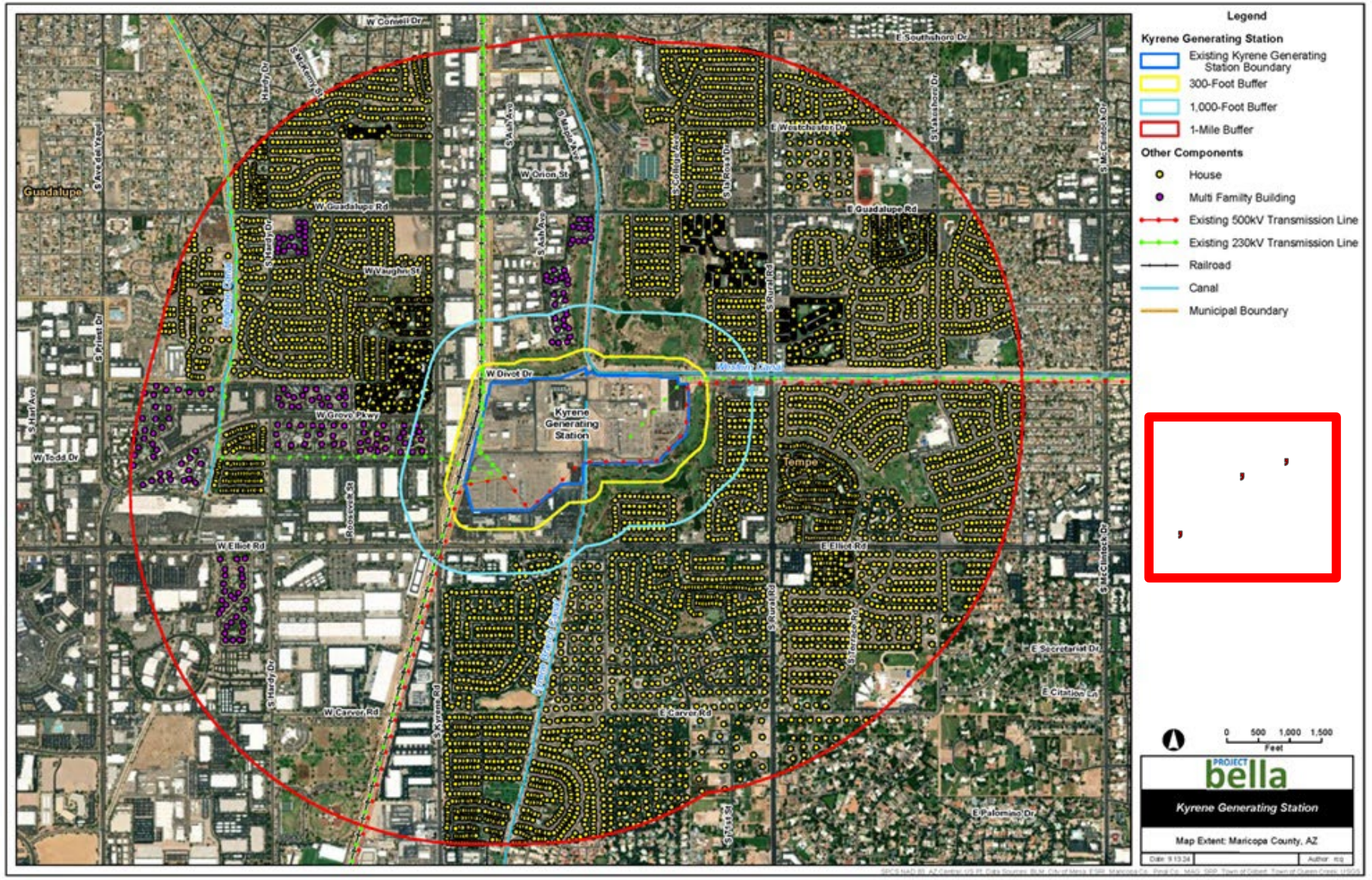
Sundance Power Plant – Proximity to Residential



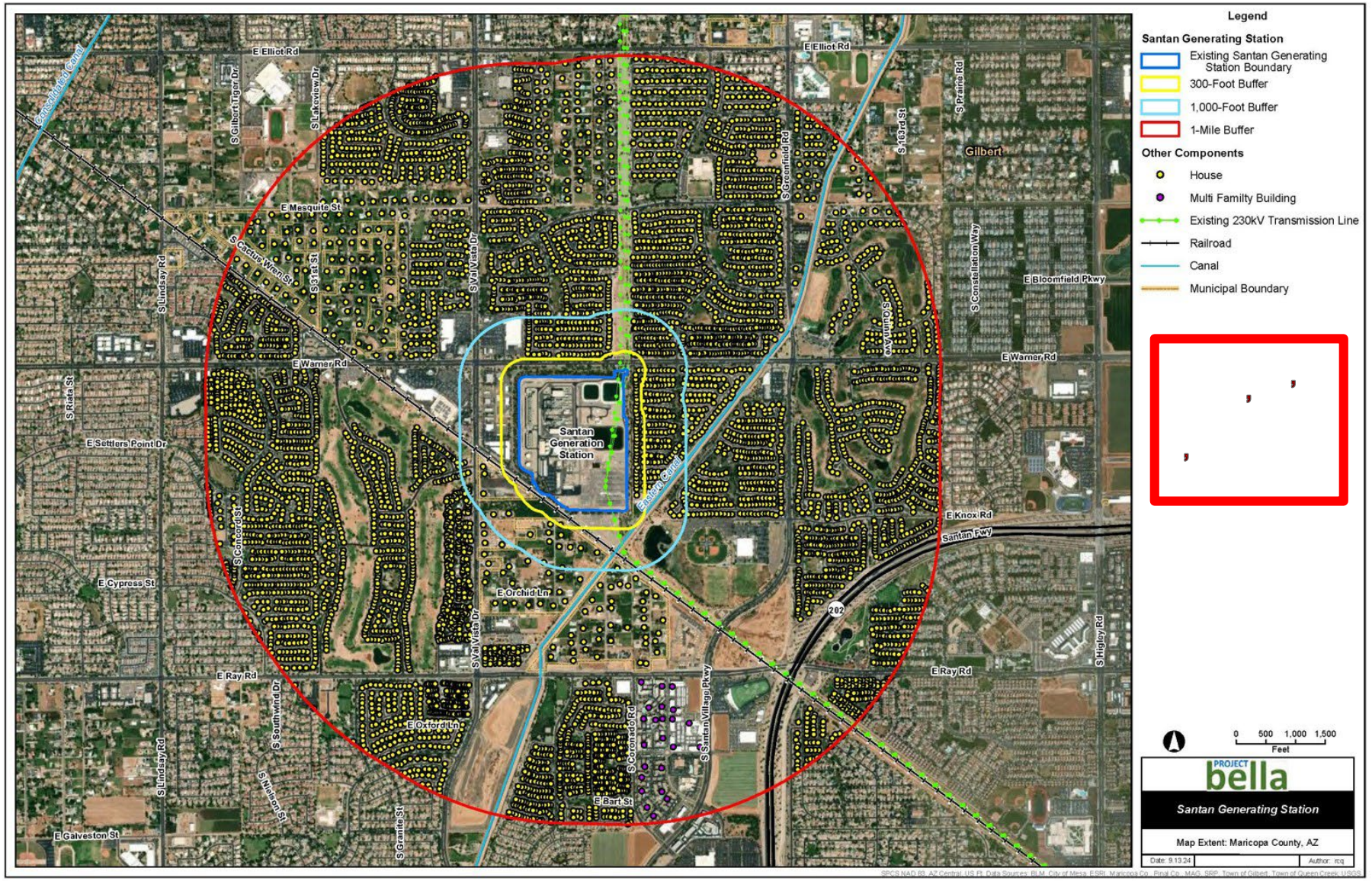
Coolidge Generation Station – Proximity to Residential



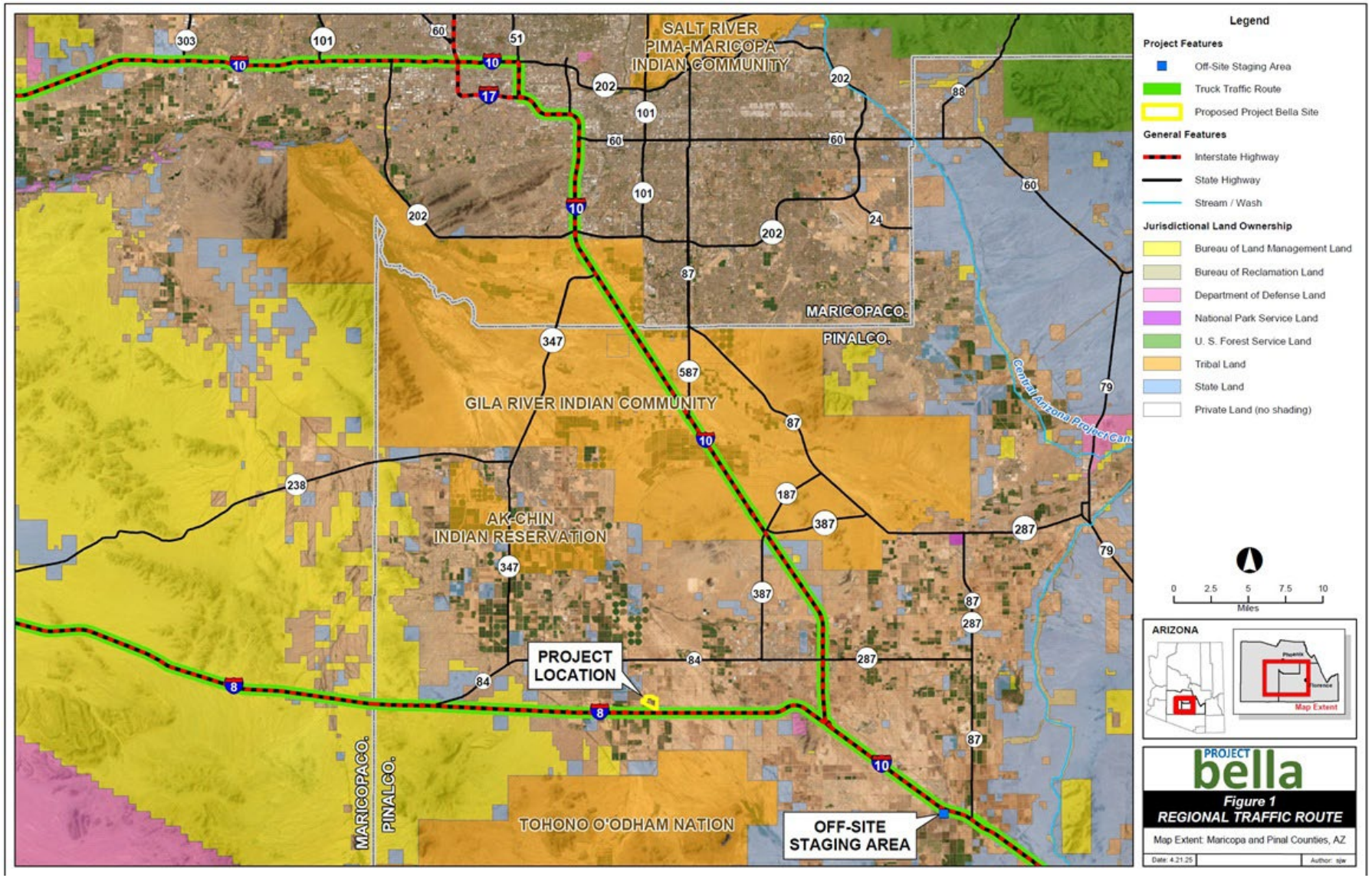
Kyrene Generating Station – Proximity to Residential



Santan Generating Station – Proximity to Residential



Regional Traffic Route



Local Traffic Route

