

FY 2019 – 2023 Utilities CIP Overview

City Council
Study Session
April 5, 2018



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Major Capital Projects



Water Resources



Energy Resources



Parks



Public Safety



Transportation

**Utilities
(April 5)**

**General
Government
(April 26)**

Agenda

- **Discuss Five Year Capital Improvement Program (CIP)**
- **Review CIP Funding**
- **Review Current Bond Authorization**
- **Review Significant Projects**

Capital Improvement Program

- **Multi-year plan for capital infrastructure**
- **Projects identified through staff analysis, contractual obligation, or council direction**
- **City Council appropriates funding for first year as part of the annual budget adoption process**
- **Individual construction contracts are brought to Council for approval throughout the year**

Project Types

Funded

- Funding identified & allocated
- Programmed within five-year period

Planned

- Funding not identified
- A need to complete within the five-year period

CIP Utility Funding

Local Revenues

- Revenue generated from City utility operations

Utility Revenue Bonds

- Approved by voters, debt service repaid with revenues generated from City utility operations

Operations & Maintenance

- Reviewed throughout the CIP project lifecycle
- Budgeted to ensure City can meet the operational requirements of capital improvements

Examples:

- New positions to operate Signal Butte Water Treatment Plant
- Chemical cost to treat wastewater

Status of 2014 Utility Bond Projects



Water



Wastewater



Natural Gas



Electric

**WATER
RESOURCES**

**ENERGY
RESOURCES**

2014 Utility Bond Programs

Water, Wastewater, Natural Gas & Electric

	Water	Wastewater	Natural Gas	Electric
Lifecycle Replacement/Reliability	\$63.3M	\$24.4M	\$19.2M	\$7.2M
Contractual Obligations	\$46.5 M	\$20.4M	-----	-----
Customer Demand in Southeast Mesa	\$197.3M	\$131.0M	-----	-----
Customer Demand Citywide	\$8.6M	\$2.4M	\$27.5M	\$2.9M
System Reinforcement	-----	-----	\$12.4M	\$16.9M
Total	\$315.7M	\$178.2M	\$59.1M	\$27.0M

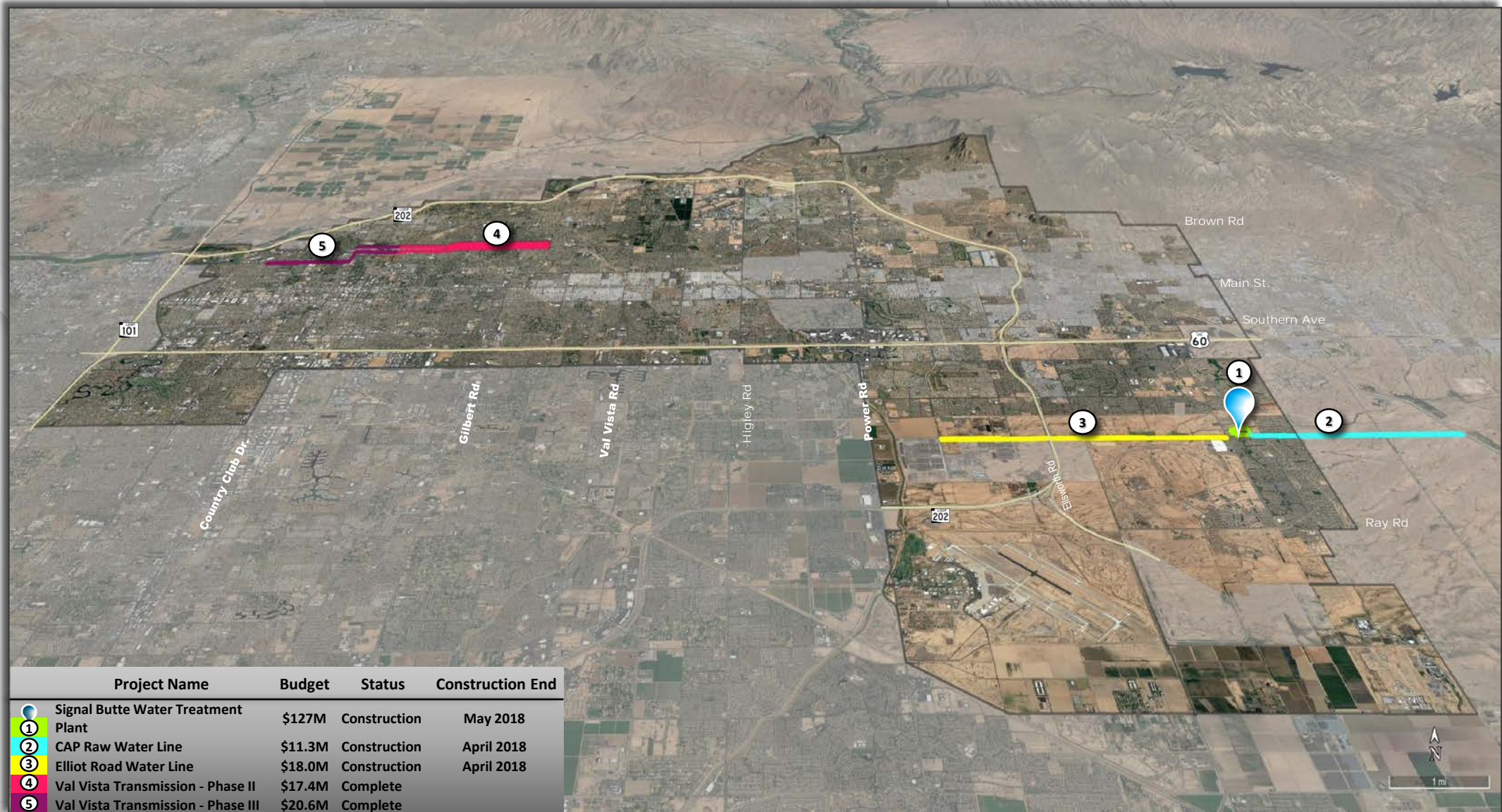
Water

Lifecycle Replacement	\$63.3M	<ul style="list-style-type: none">• 10 Quarter Section Waterline Replacement Projects• 4 Well Projects• Brown Road Water Plant Misc. Improvements
Contractual Obligations	\$46.5M	<ul style="list-style-type: none">• Val Vista Pipeline Phases II & III• Val Vista Water Plant Contract w/Phoenix• Water Settlement Contract
Customer Demand in Southeast Mesa	\$197.3M	<ul style="list-style-type: none">• Signal Butte Water Plant• CAP Raw Water Main• 3 Transmission Main Projects• 8 Well Projects• 8 Pipeline Projects• Gateway Infrastructure
Customer Demand-Citywide	\$8.6M	<ul style="list-style-type: none">• Transfer Station 3 Upgrade• Misc. Waterlines

Total \$315.7M



5 Major Water Projects = \$194.3 of Total Bonds



Major Water Projects



Val Vista Pipeline (Phases II & III)



Elliot Road Water Line



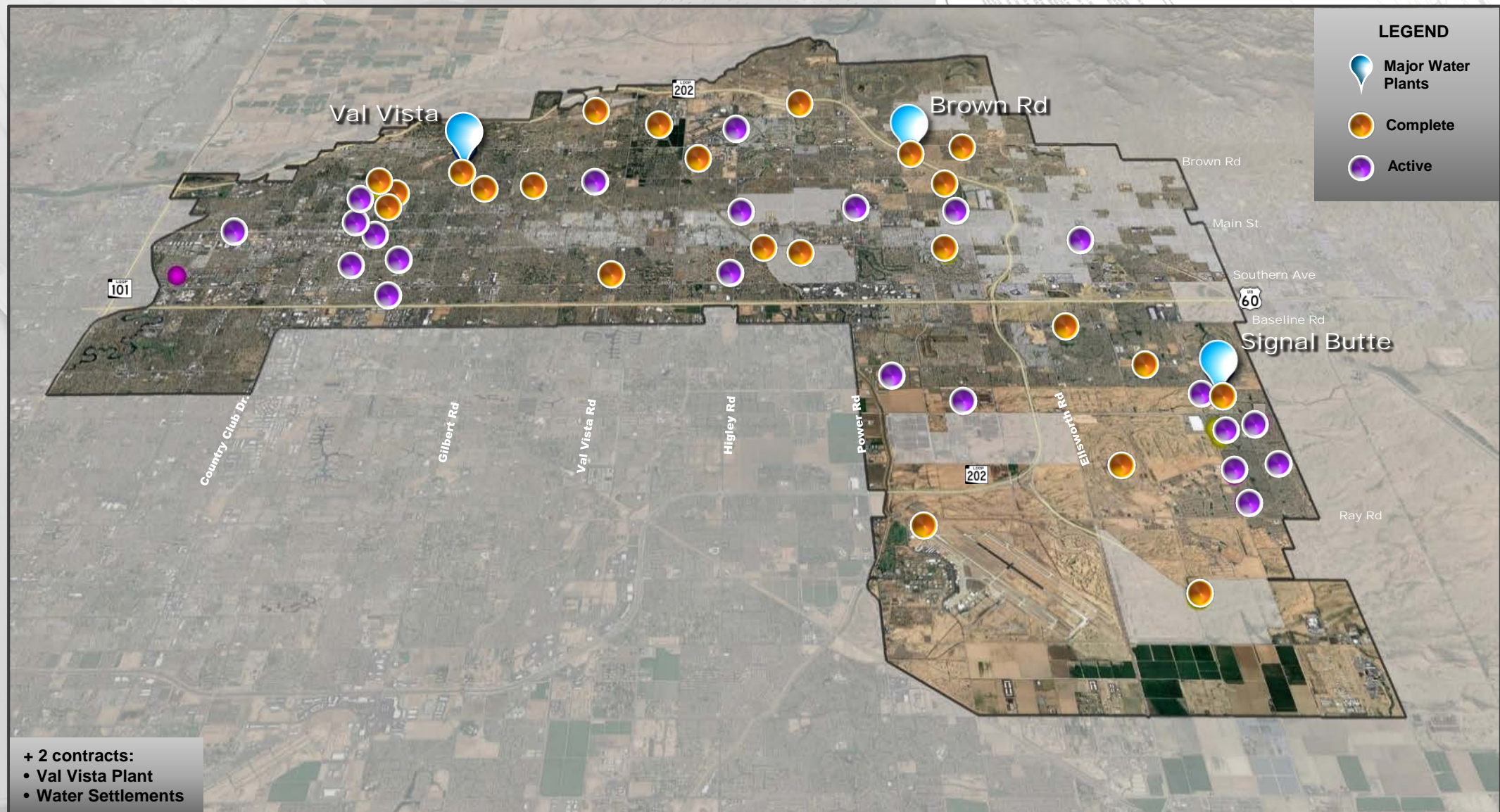
CAP Raw Water Line



Signal Butte WRP



All Water Projects



Wastewater

Lifecycle Replacement

\$24.4M

- Miscellaneous Greenfield Water Reclamation Plant Improvements
- Lift Station, Pipeline & Manhole Projects
- Southeast Plant Rehabilitation Projects

Contractual Obligations

\$20.4M

- 91st Avenue WW Plant Mesa Share

Customer Demand in
Southeast Mesa

\$131.0M

- 8 Sewer Projects
- Greenfield WRP Expansion

Customer Demand-Citywide

\$2.4M

- Septic to Sewer Program

Total \$178.2M



One Major Wastewater Project = \$125M of Total Bonds

Greenfield Water Reclamation Plant

Status

Partners: Town of Gilbert
Town of Queen Creek

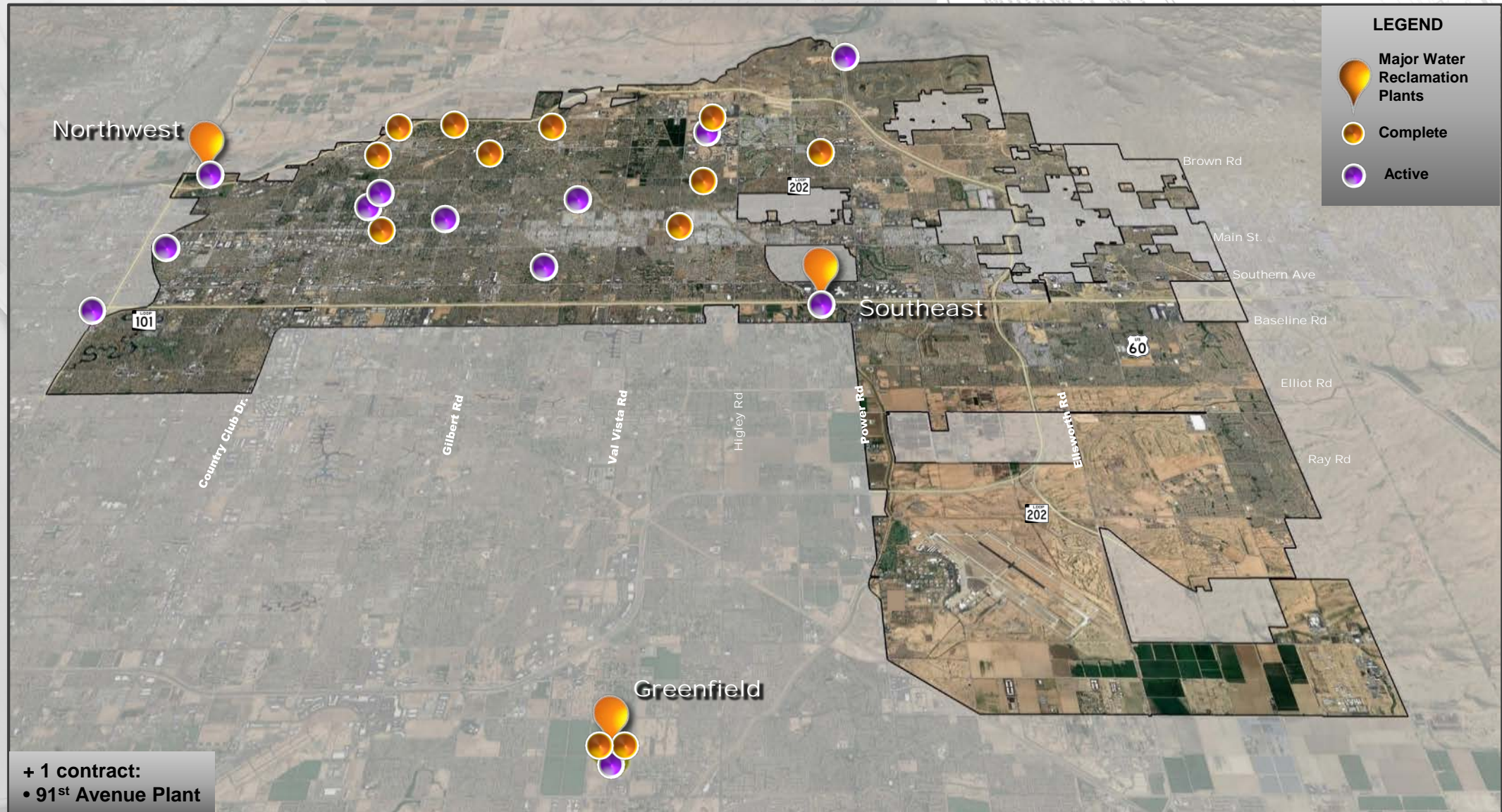
In Design Phase

Est. Construction Start:
1st Quarter 2018

Est. Construction End:
3rd Quarter 2020



All Wastewater Projects



Electric

Lifecycle Replacement

\$7.2M

- Distribution – Overhead
- Transmission
- Substation Improvements
- Metering

System Reinforcement

\$16.9M

- Mesa Drive Phase II
- Distribution-Underground
- Generation
- Horne Utility Replacement
- Gilbert Road Light Rail Extension

Customer Demand

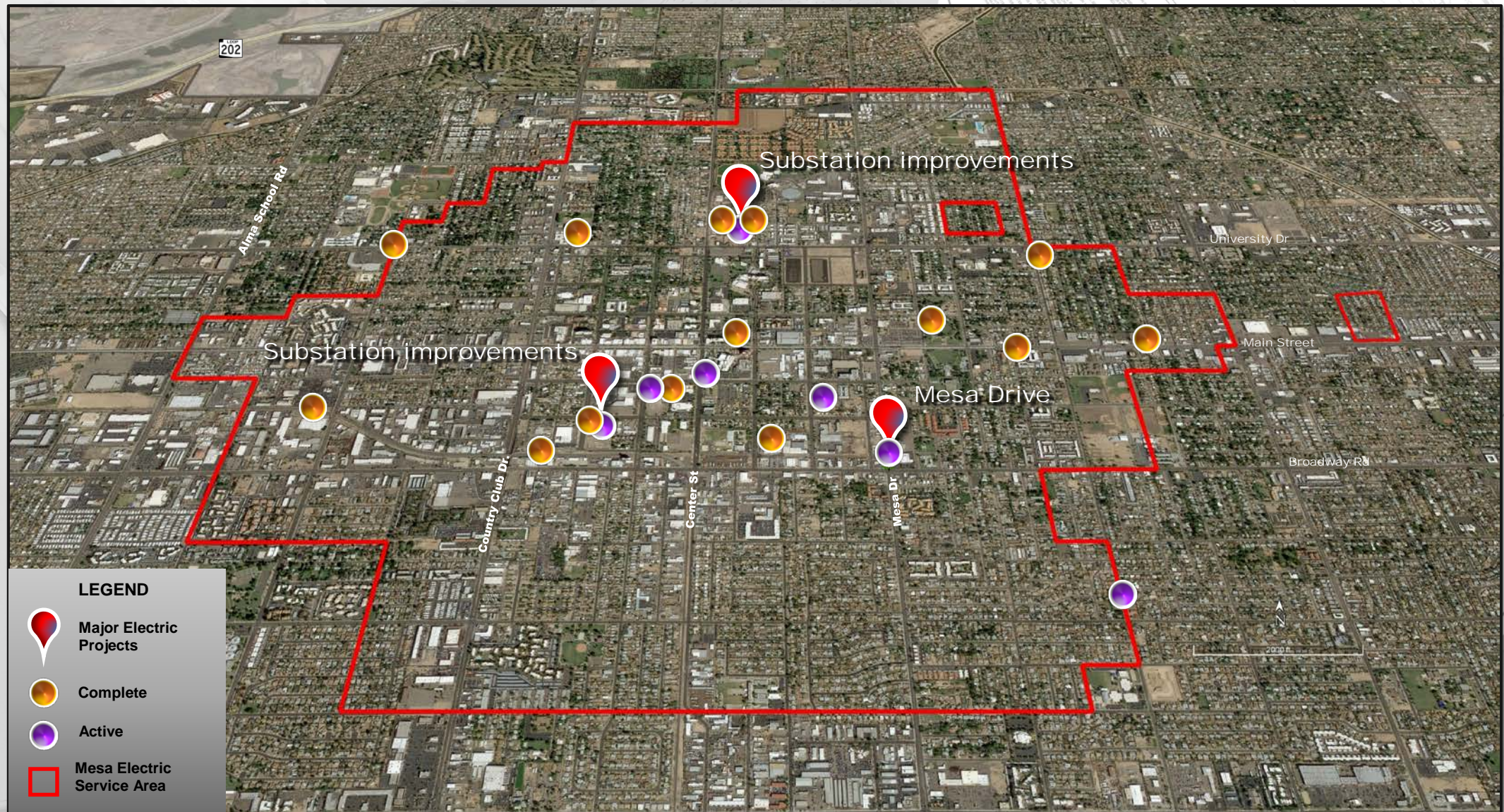
\$2.9M

- New Services
- Substation to Park Conversion

Totals \$27.0M



Electric Projects



Natural Gas

Lifecycle
Replacement

\$19.2M

- Coordinated Projects
- Main Replacements
- Service Replacements
- Meter Replacements

System
Reinforcement

\$12.4M

- Mains
- HP Mains
- Pressure Regulation Stations
- SCADA
- Cross Ties

Customer
Demand

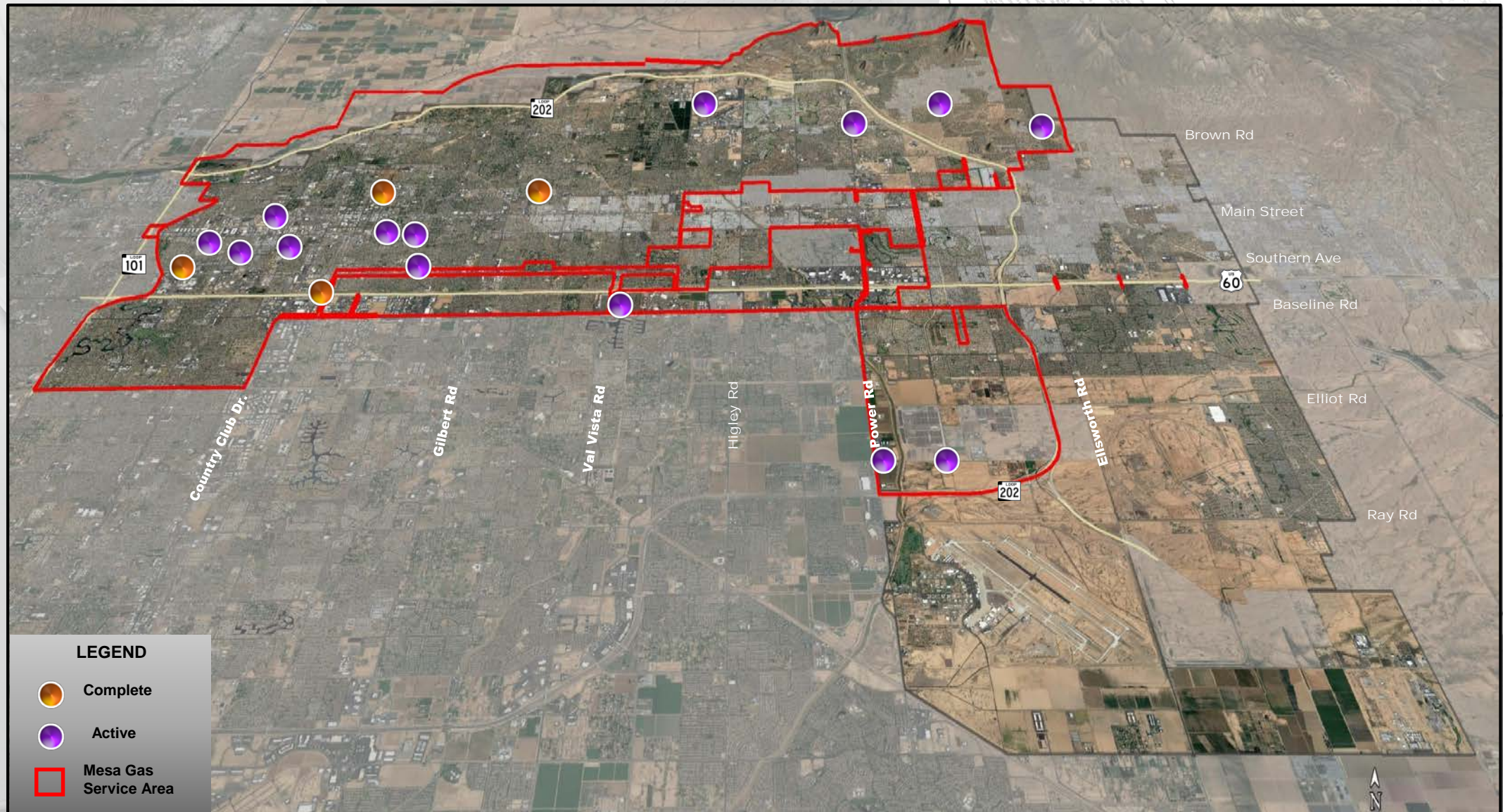
\$27.5M

- New Mains
- New Meters
- New Service

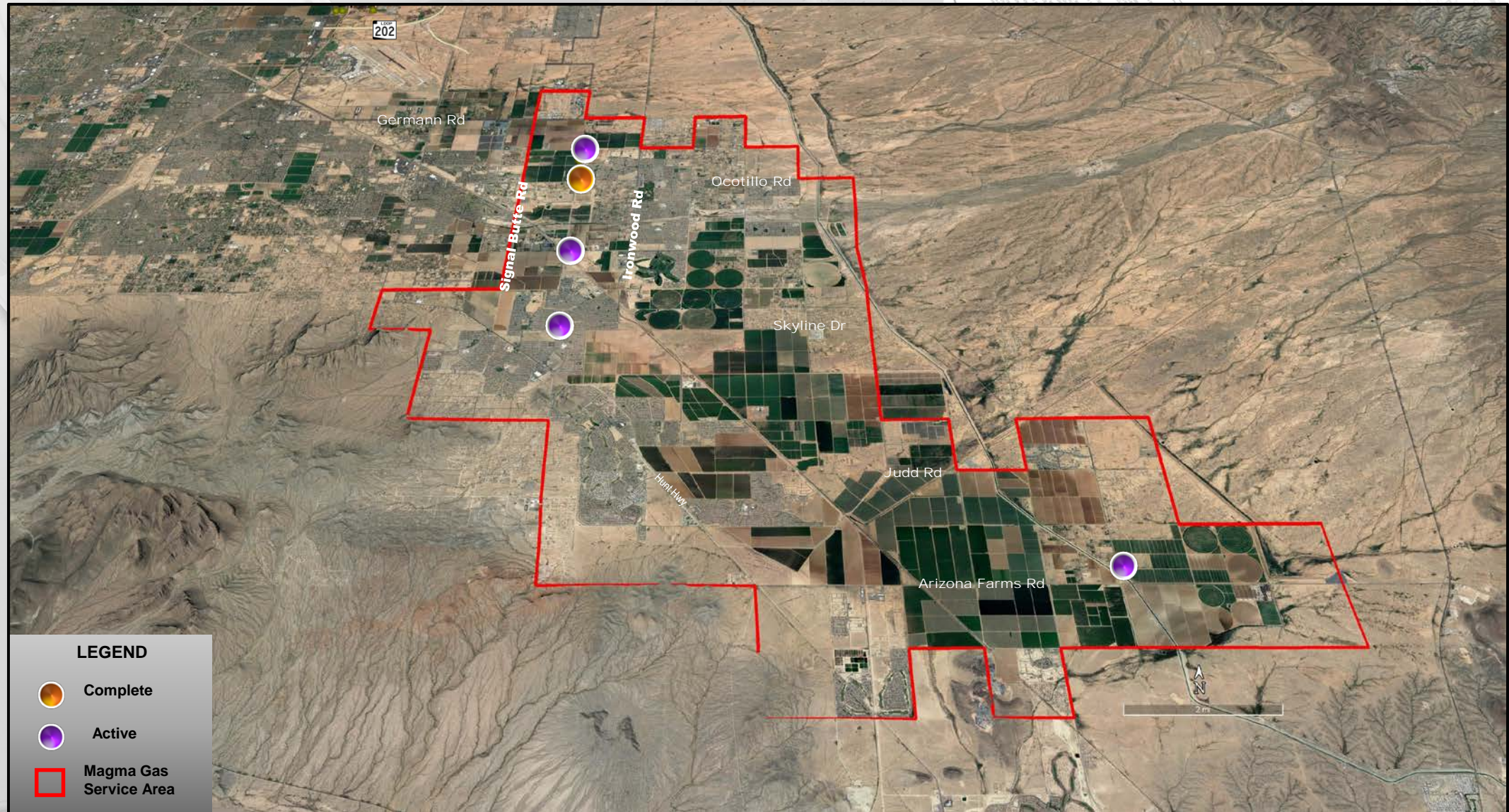
Totals \$59.1M



Natural Gas Projects in Mesa Service Area



Natural Gas Projects in Magma Service Area



Nature of Electric and Natural Gas Projects

PROJECT SCHEDULE DRIVERS:

- Many Natural Gas & Electric lines are under streets + Natural Gas joint-trenched with Water:

\$20M or 23% of Program

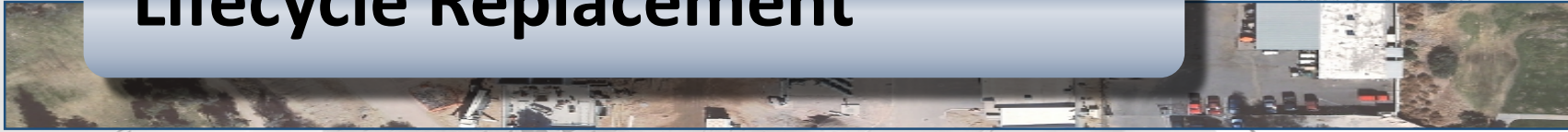
- Customer Demand + New Customers:

\$30M or 35% of Program



Future CIP Bond Needs

Lifecycle Replacement



Contractual Obligations



Customer Demand



System Reliability



Calendar

May	21	Council considers CIP adoption
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Questions?

