



CAGRD 2025 Plan of Operation Obligation Projection Roundtable

Discussion on Replenishment Obligation Projections for Member Lands and Member Service Areas

May 24, 2023

9-11 AM

YOUR WATER. YOUR FUTURE.

Agenda

Welcome

CAGRD Plan of Operation Overview & Timeline (Grignano)

Replenishment Obligation Projection Development (Baji & Seasholes)

Discussion

Next Steps

Closing

CAGRD Plan of Operation Overview & Timeline

CAGRD Plan of Operation

Every ten years CAGRD is required to submit to ADWR: “a plan describing the activities for each active management area that the conservation district proposes to undertake during the one hundred calendar years following submitting the plan.”

Required elements include projected replenishment obligations & planned and potential water supplies to meet those obligations.

Must demonstrate consistency with the management goal for each AMA.

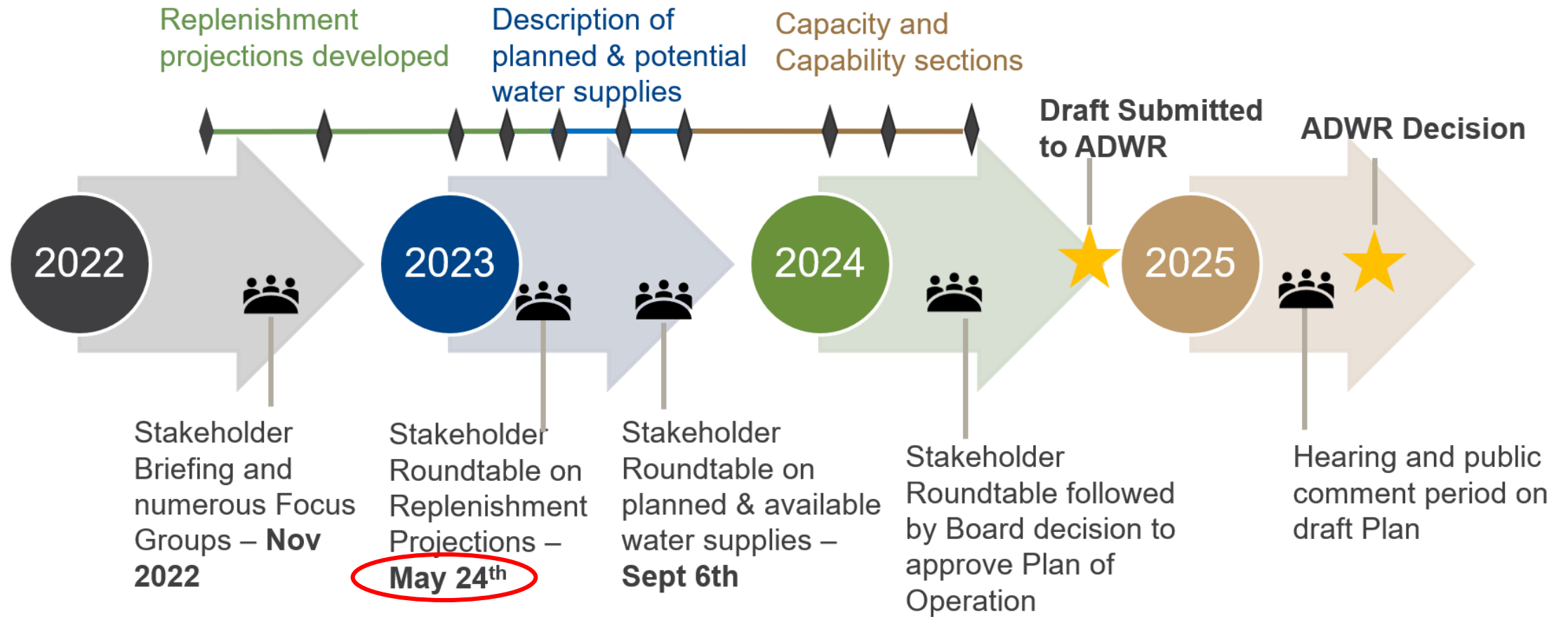
Three plans have been developed and approved to date.

CENTRAL ARIZONA GROUNDWATER
REPLENISHMENT DISTRICT

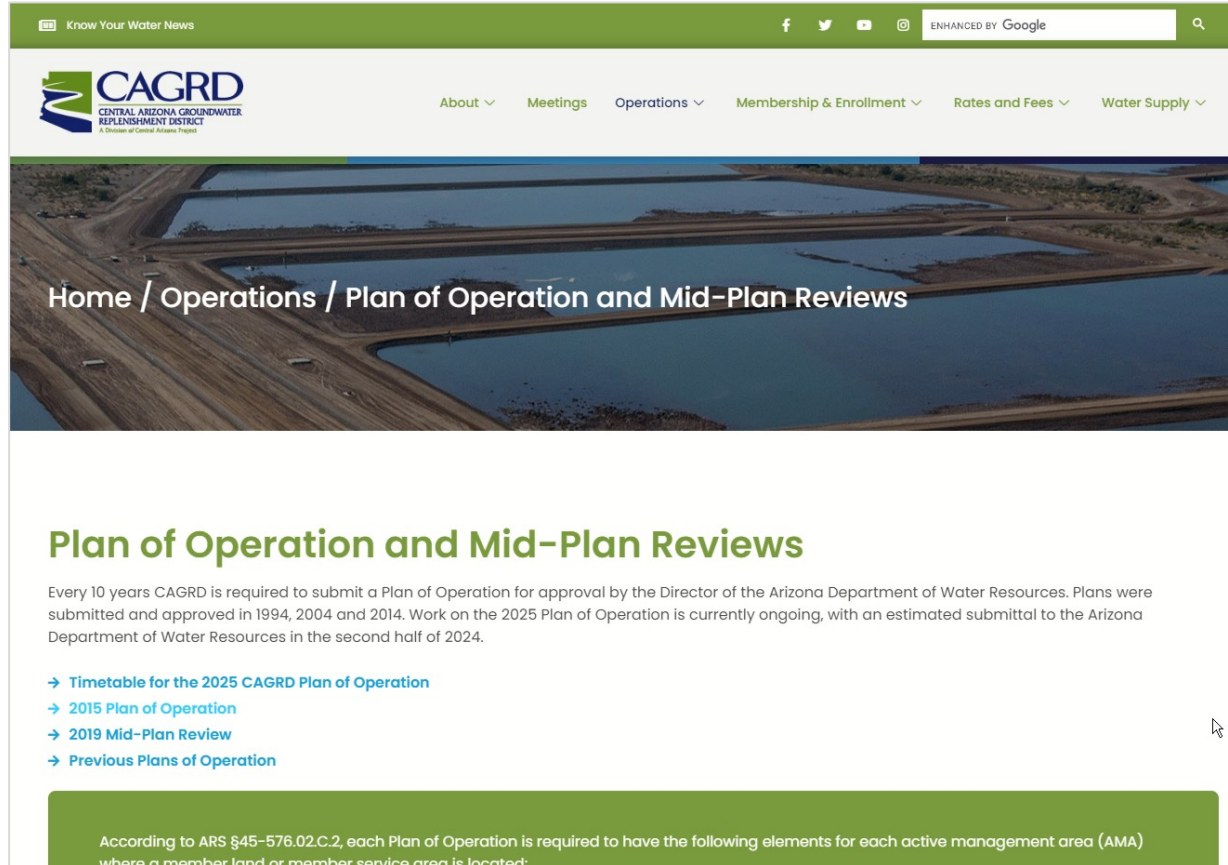
PLAN OF OPERATION



2025 Plan of Operation Process Timeline



2025 Plan of Operation on CAGRD Website



<https://cagrd.com/operations/plan-of-operation-and-mid-plan-reviews/>

Big THANK YOU to CAP Communications staff for creating the webpage

Replenishment Obligation Projection Development

Replenishment Obligation Development

[Big Takeaways](#)

[Modeling Obligation](#)

[Discussion](#)

[Background](#) (if needed)

Stakeholder Engagement

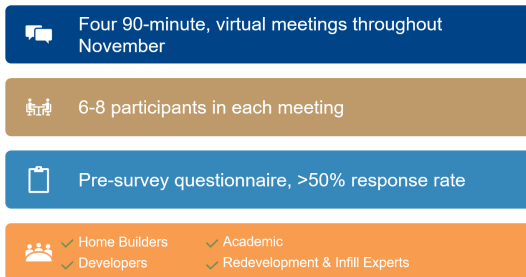
Public Meetings

- Stakeholder Briefing, November 9th, 2022
- Committee Presentation on Tools and Methodology, November 2022
- Committee Presentation on Preliminary Obligation Projections, March 2023
- Committee Presentation on Obligation Estimates, May 18, 2023

Targeted Engagement

- Housing Expert Focus Groups, Nov-Dec 2022

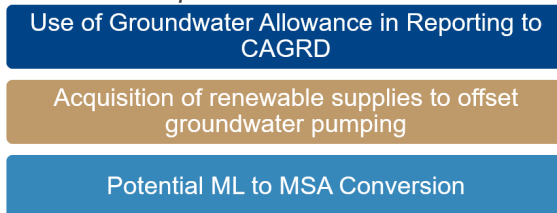
Focus Groups: Growth & Housing



- CAGRDR Water Provider meetings, April 2023

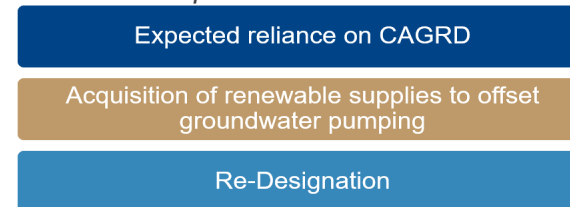
Reached 4/5 Top ML Water Providers

Discussion Topics



Reached 18/23 MSAs

Discussion Topics



Big Takeaways

Roundtable Discussion on Obligation Projection

Proposed Replenishment Obligation Estimate

		20-Year	100-Year
Member Lands	Previously Enrolled Lots	56 KAF	63 KAF
	Newly Enrolled Lots	15 KAF	13 KAF
Member Service Areas		12 KAF	15 KAF
TOTAL		83 KAF	91 KAF

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Discussion of Replenishment Projections for Use in the 2025 CAGRD Plan of Operation

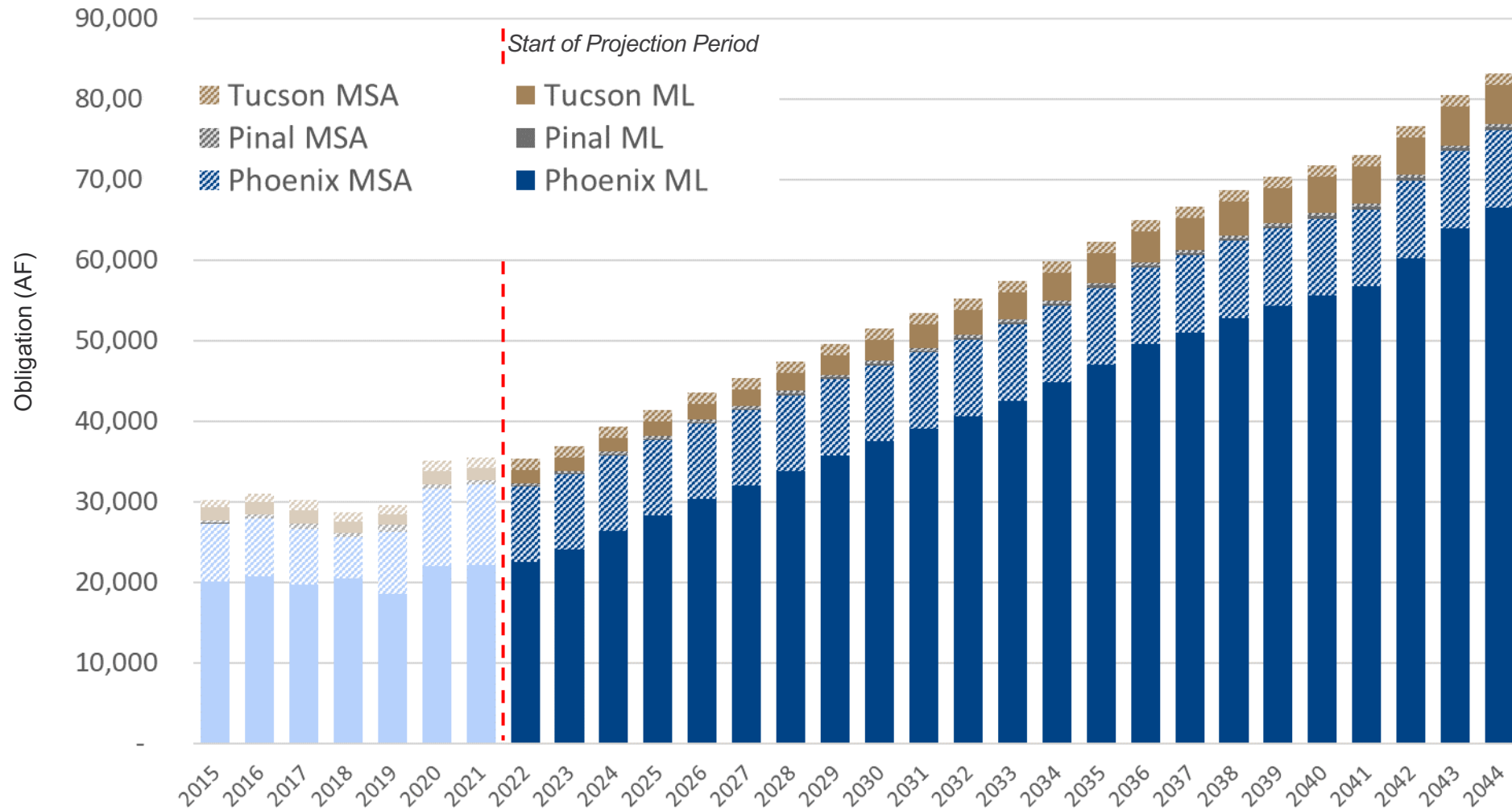


May 18, 2023 Committee Presentation

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CAGRD 2025 Plan of Operation Obligation Projection Roundtable

Obligation by AMA and Member Type

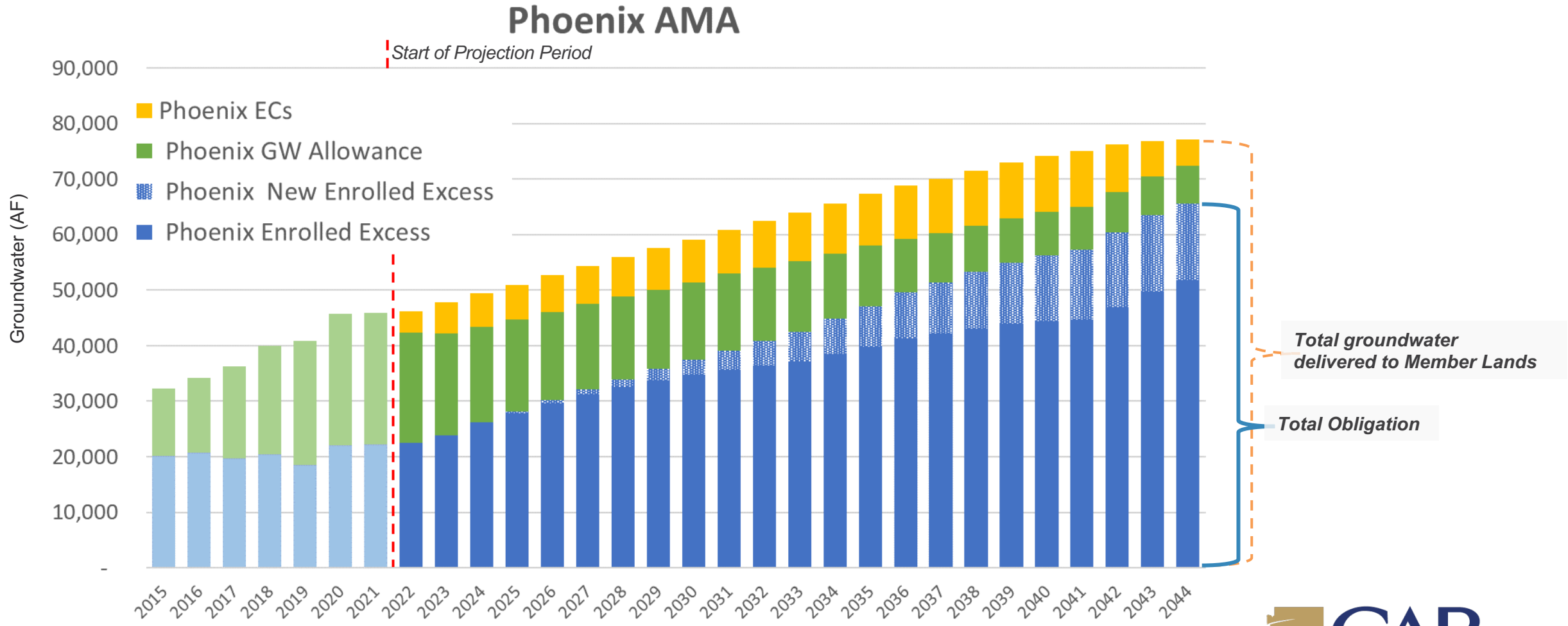


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Phoenix AMA ML Obligation Forecast



Modeling Obligation

Member Land Obligation Factors

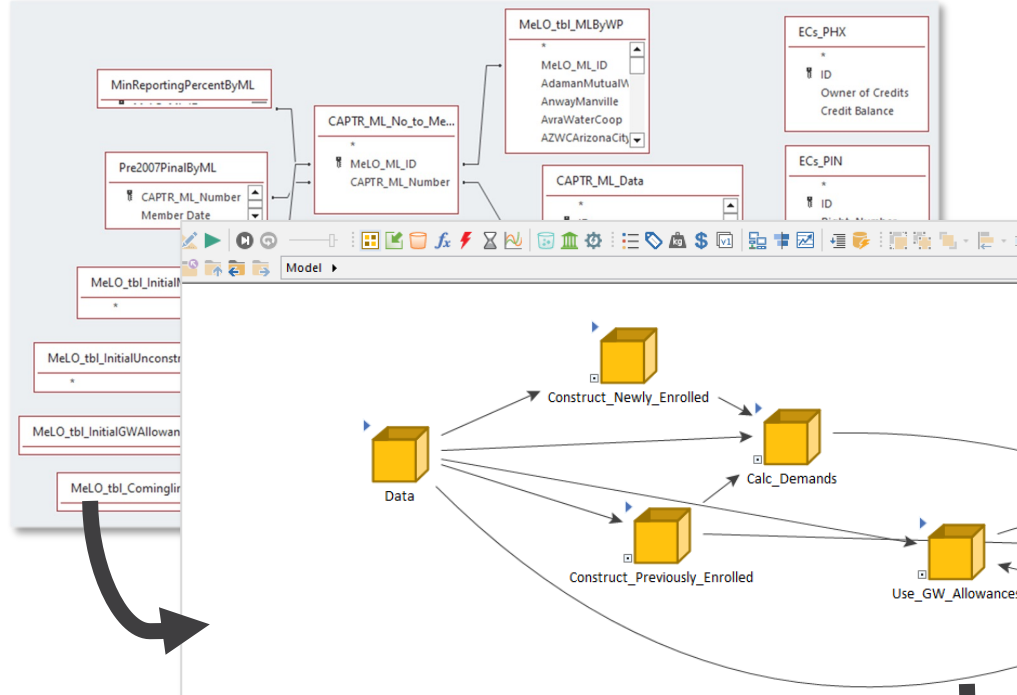
Status of Member Land Lots	Growth Rate	Growth Location	Type of Growth	Reporting Strategies	Member Changes	Conservation
Constructed				✓	✓	✓
Enrolled, Not Constructed	✓	✓	✓	✓	✓	✓
Future Enrollment	✓	✓	✓	✓	✓	✓

Housing Expert
Focus Groups

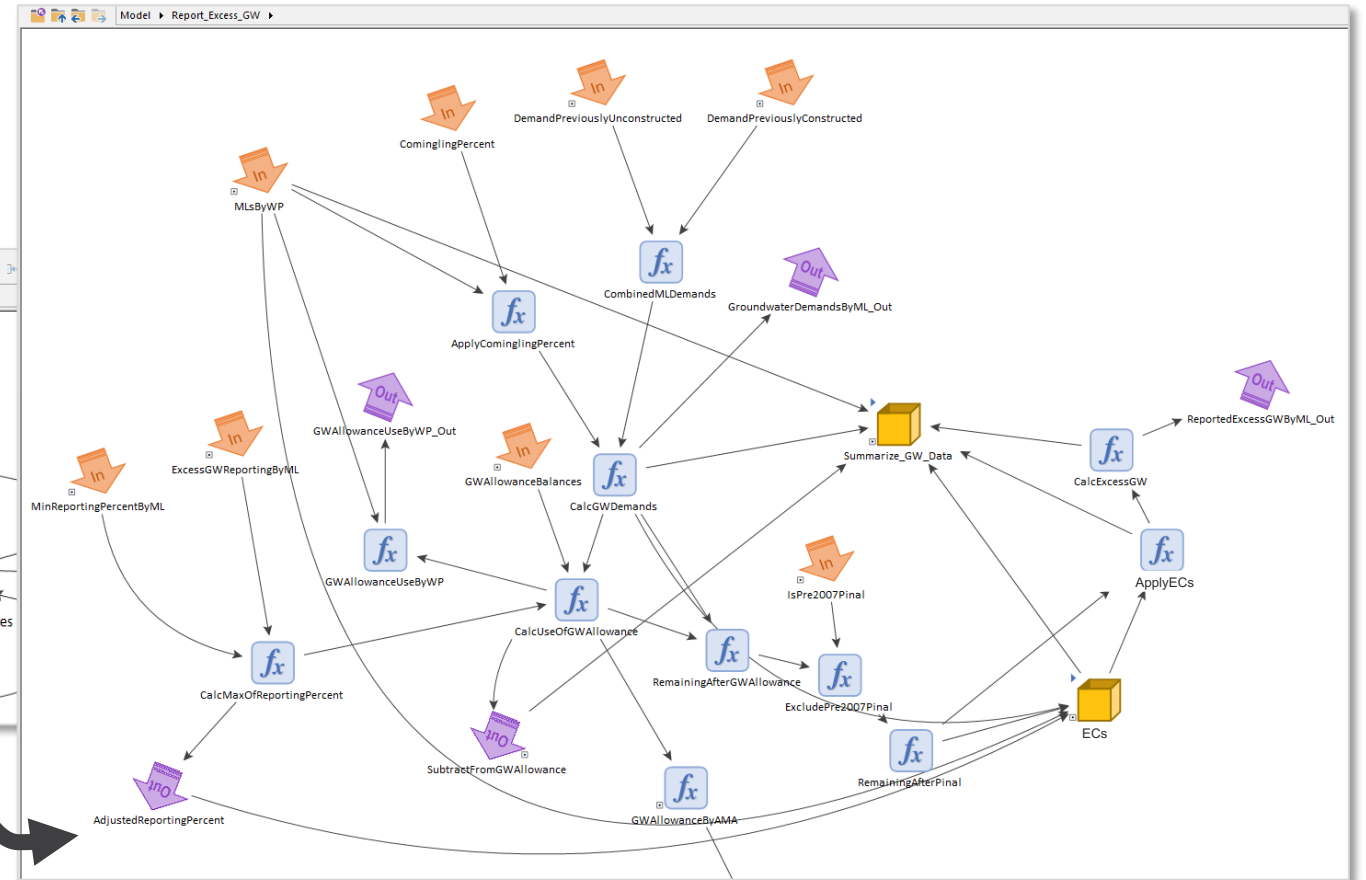
Water Provider Interviews

MeLO Model

Member Land Obligation Factor Database



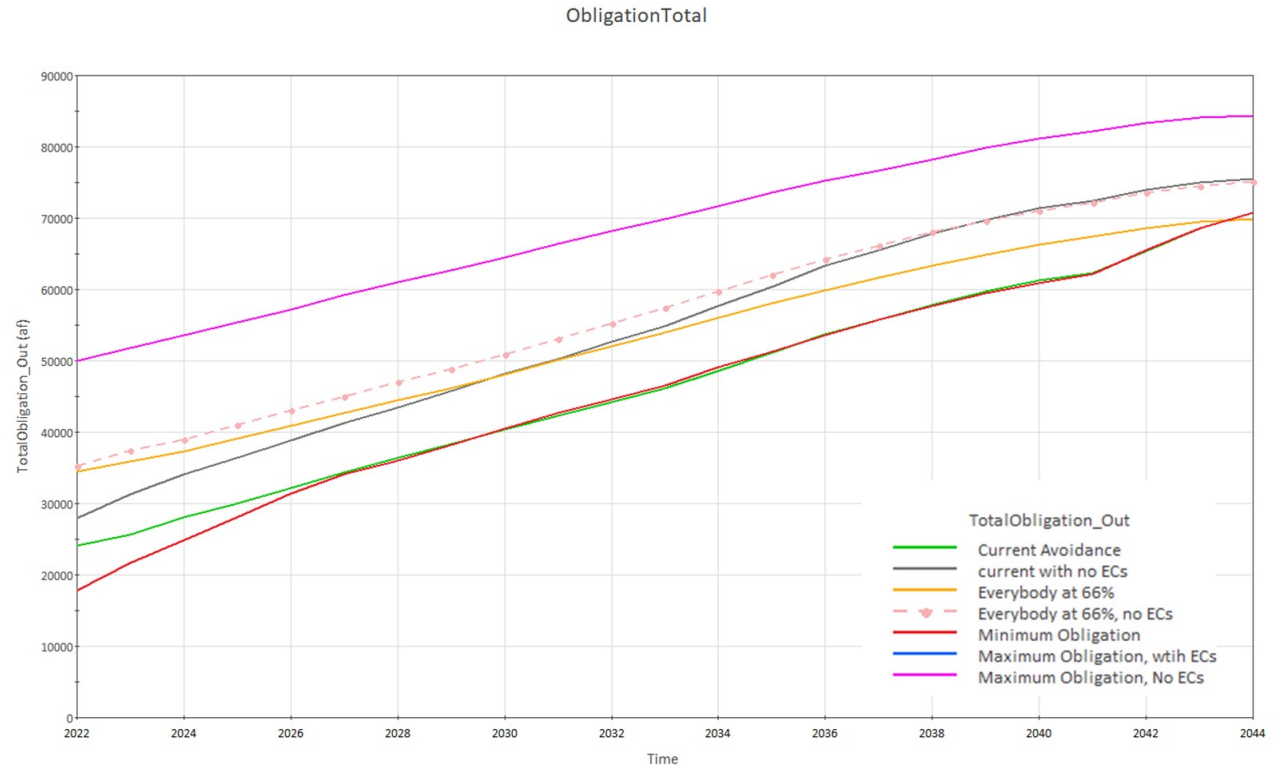
Member Land Obligation (MeLO) Model Structure



MeLO Excess Groundwater Projection

Sensitivity Analysis- Reporting Behavior

- During the 20-year period, reporting strategies have a large and persistent effect on projected obligation
 - High utilization of groundwater allowances, supplemented with Extinguishment Credits, can reduce reported Excess Groundwater by 20-30 KAF/yr.
- Current reporting is near the minimum of obligation



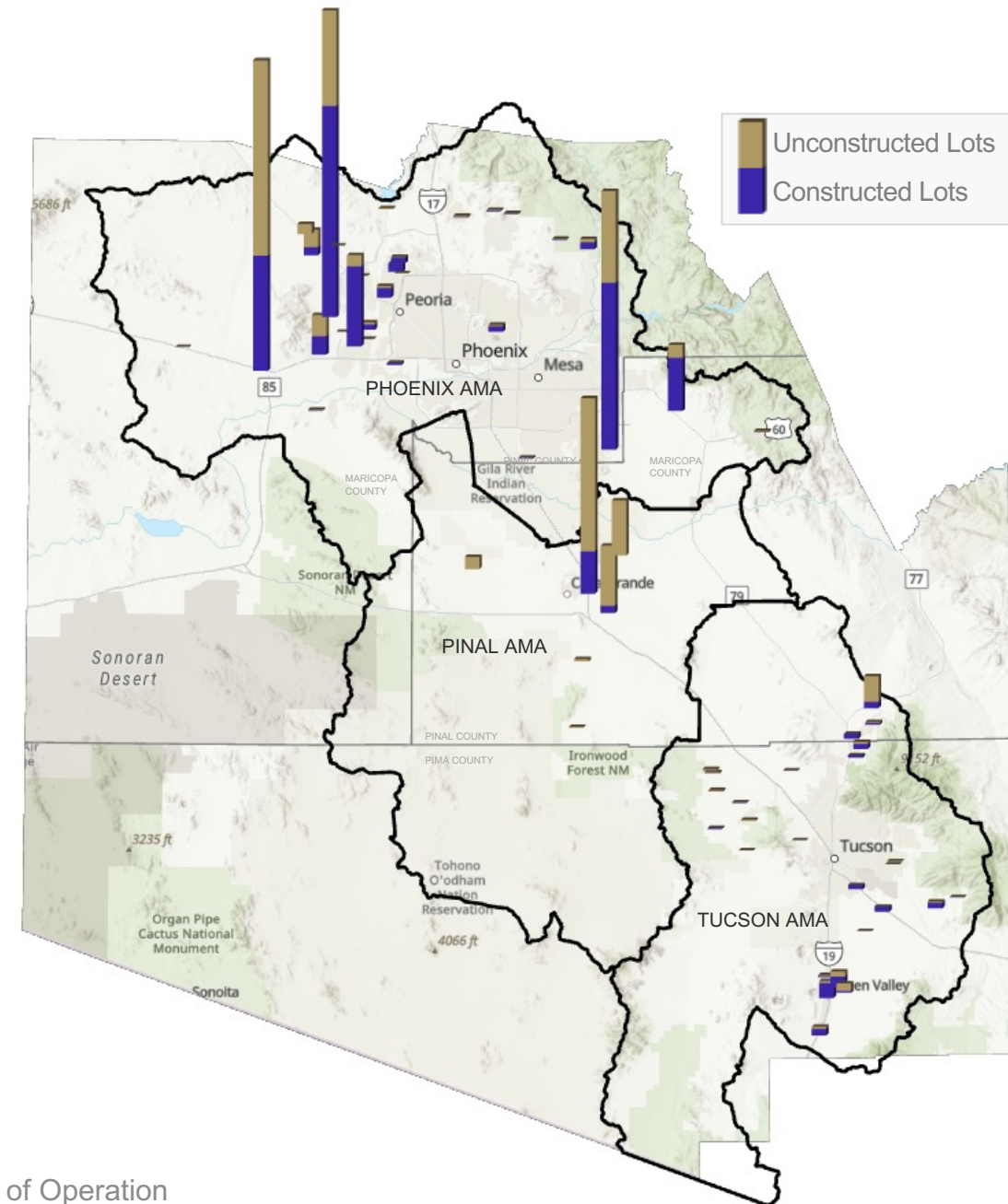
Additional Analysis

- In addition to Excess Groundwater reporting behavior, Staff have analyzed combinations of factors that could affect Member Land obligation, including differing rates of construction, conservation and enrollment
 - The rate of new enrollment could have a significant impact on long-term obligation, but there are new and emerging regulatory constraints associated with demonstrating AWS Physical Availability on the basis of groundwater
 - No new groundwater-based Certificates of AWS are expected in the Pinal AMA, and a small and declining number in the Phoenix AMA

Growth Location

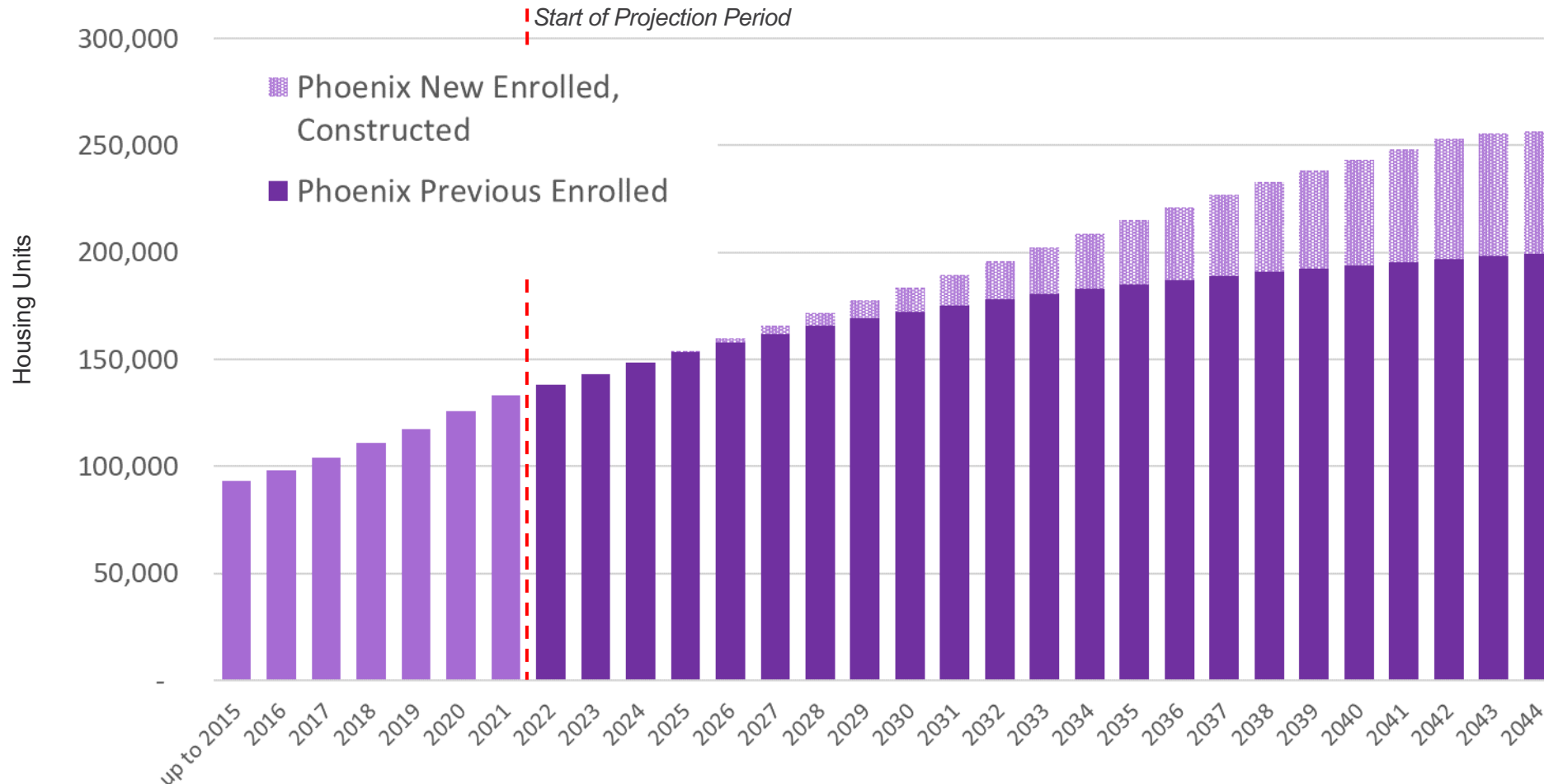
- Existing vs. New Member Lands
 - Enrolled Member Lands have already obtained a Certificate of AWS and demonstrated a 100-year supply
 - Lots that are enrolled but not yet constructed are likely to absorb a large share of the Member Land growth

AMA	Enrolled ML Lots	Not Yet Constructed
Phoenix AMA	220,000	80,500 (36%)
Pinal AMA	62,700	51,500 (82%)
Tucson AMA	25,000	9,700 (38%)

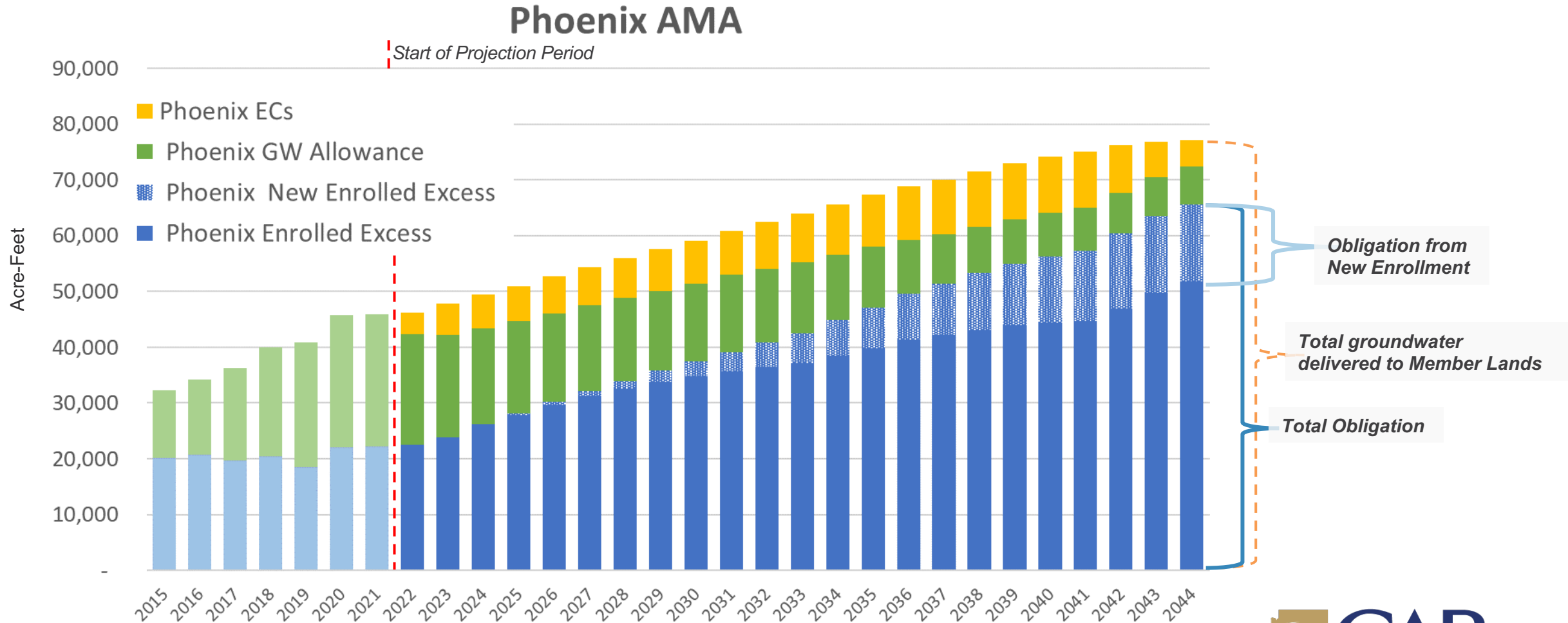


Cumulative Construction on MLs

Phoenix AMA



Obligation from New Enrollment

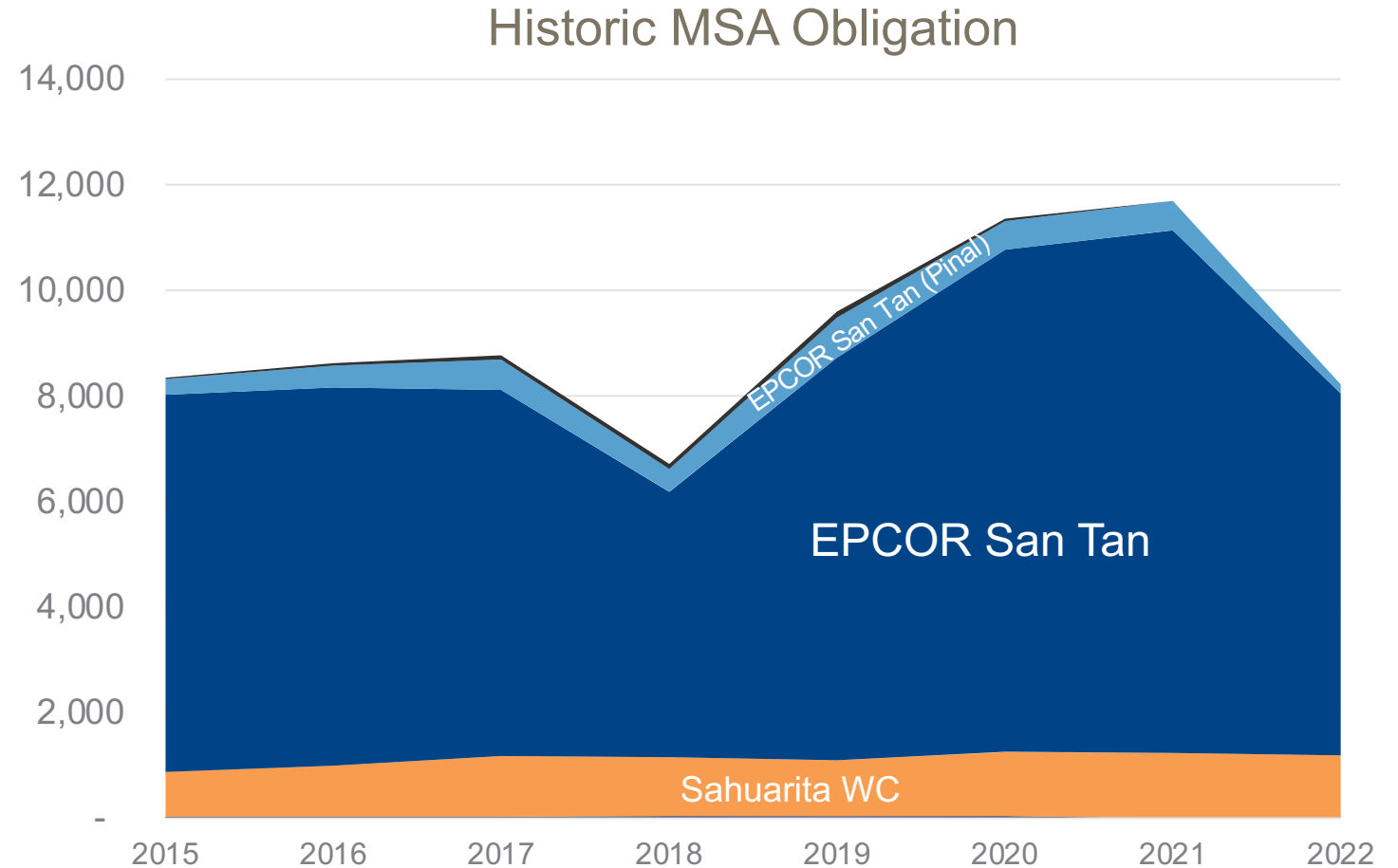


Member Service Area Obligation

Current MSA Obligation is from 3-5 water providers, out of 22 enrolled members

Water provider feedback indicated continued view of CAGR D as “supply of last resort” for most providers

MSAs that currently rely on CAGR D expect to report similar amounts and to include CAGR D for future growth



Discussion

Next Steps

Thank you!