



CAP Water Portfolio and Forecast Update

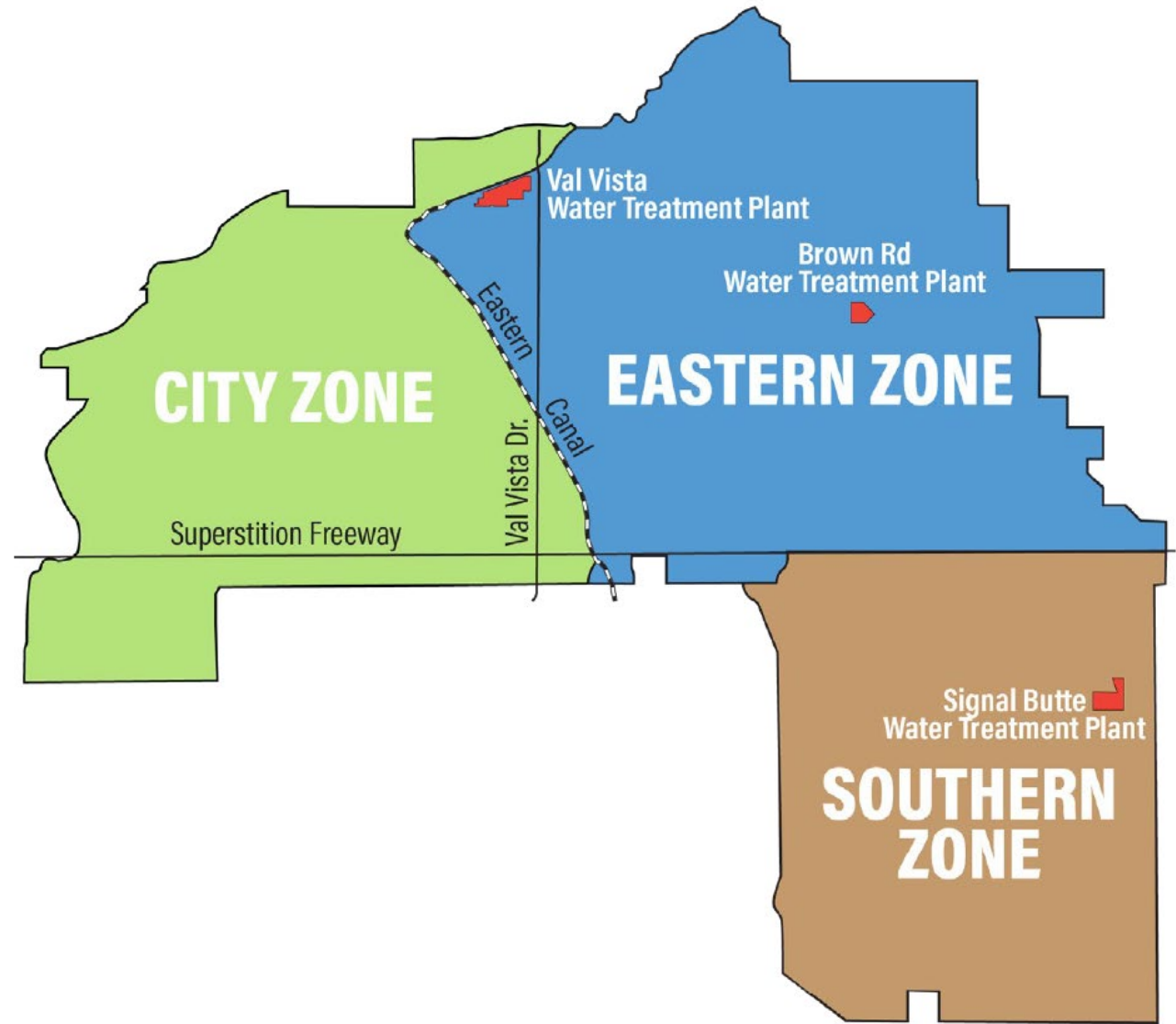
City of Mesa
Water Resources Dept.
Sept 2023

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WATER RESOURCES

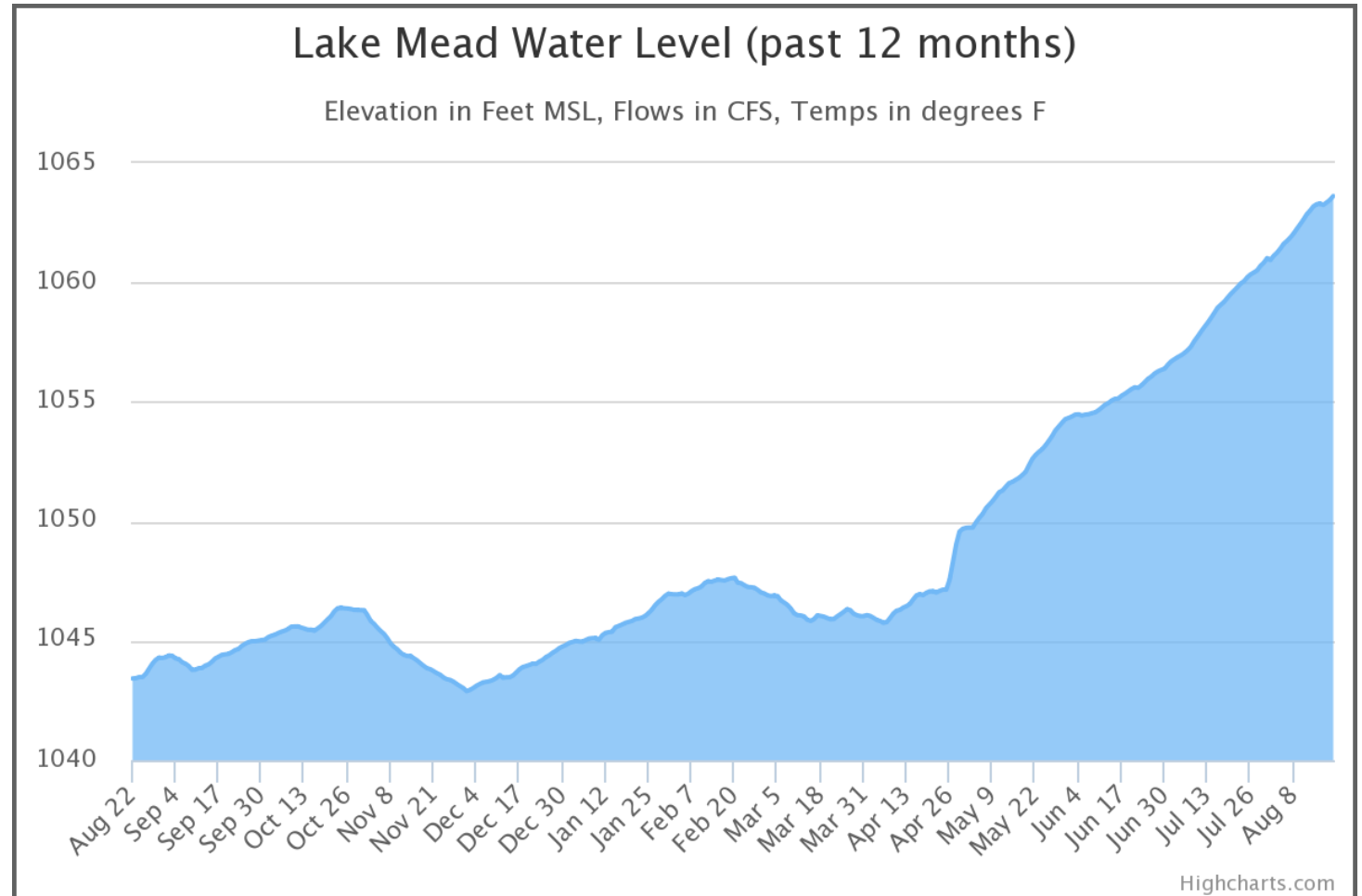
Overview

- This presentation is focused on the Colorado River Supply to the City of Mesa
- Graphs, Charts and Numbers shown are based on current information
- Goal is to show historical and future demand vs. supply



Current Status of the Colorado River

- Bureau of Reclamation declared a Tier 2A for 2023
- Higher than expected snowfall led to rise in levels at Lake Mead
- Bureau of Reclamation declared a Tier 1 for 2024
- Mesa to continue Stage 1 of the Water Shortage Plan

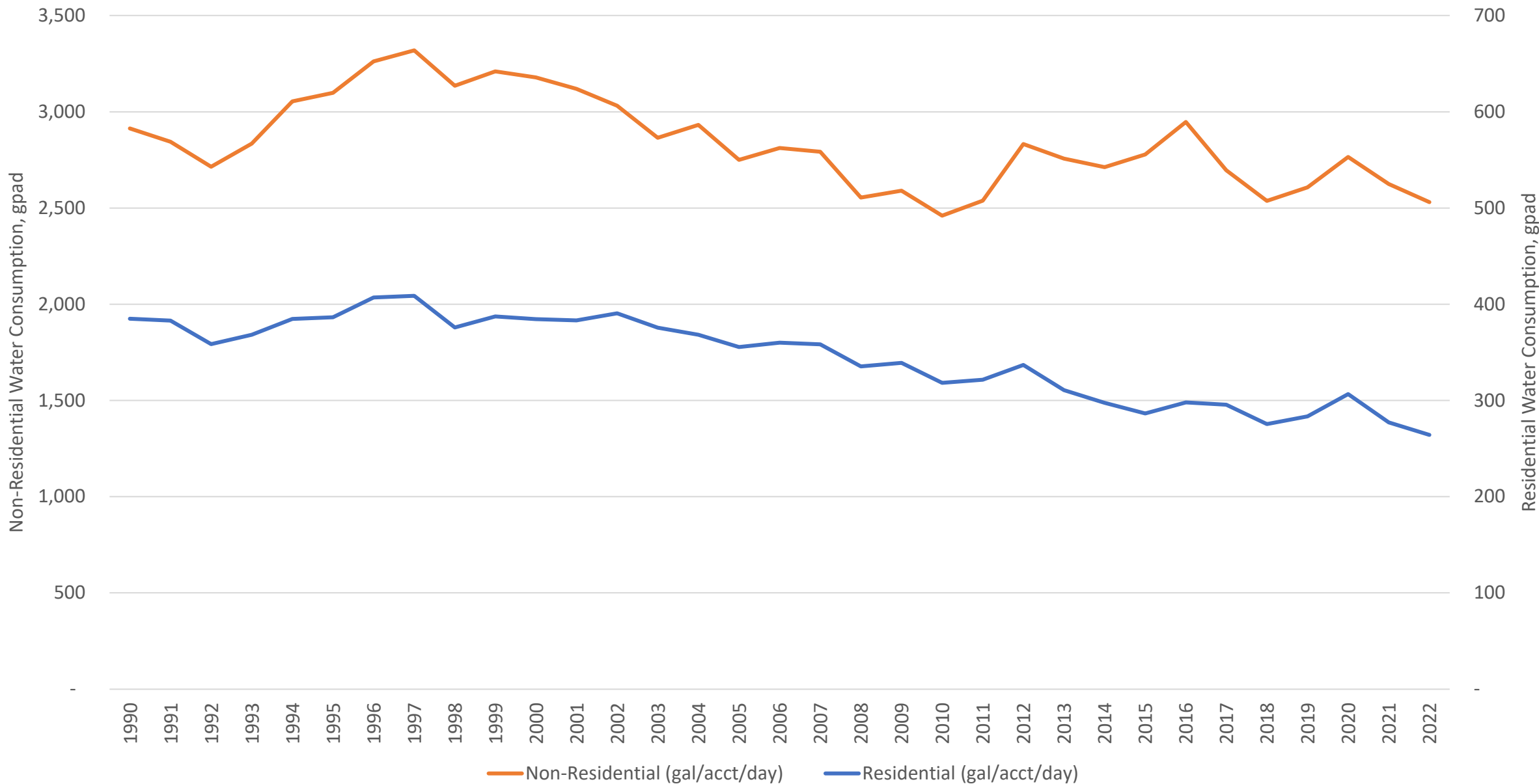


Water Consumption Trends

- Graphs show residential and non-residential water consumption per account since 1990.
- Residential water consumption per account has continued to decline since 1997.
- Non-Residential water consumption account declined from 1997 to 2008 but stayed flat from 2009 to present.



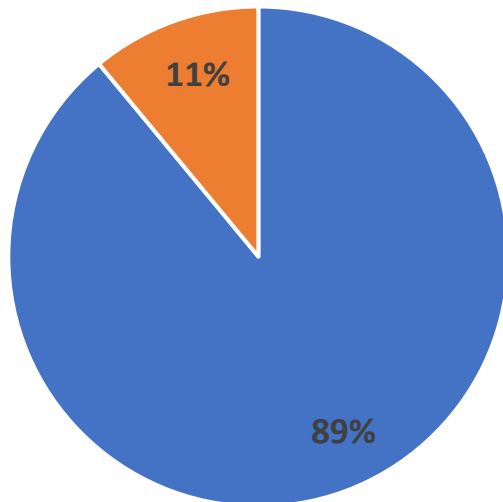
Historical Gallons per Account per Day



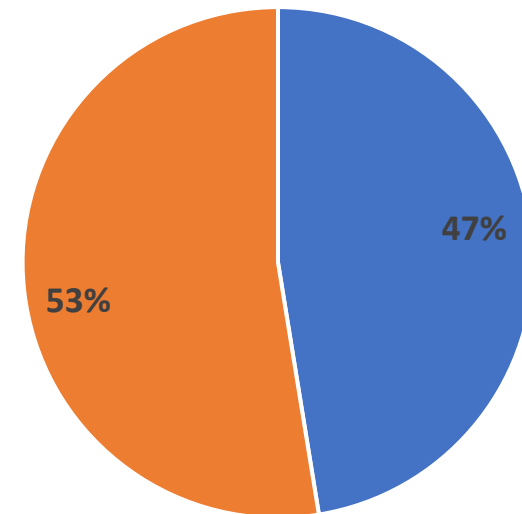
Residential vs Non-Residential Accounts

- 11% of water customers are Non-Residential
- Non-Residential accounts for 53% of water consumption

Water Accounts

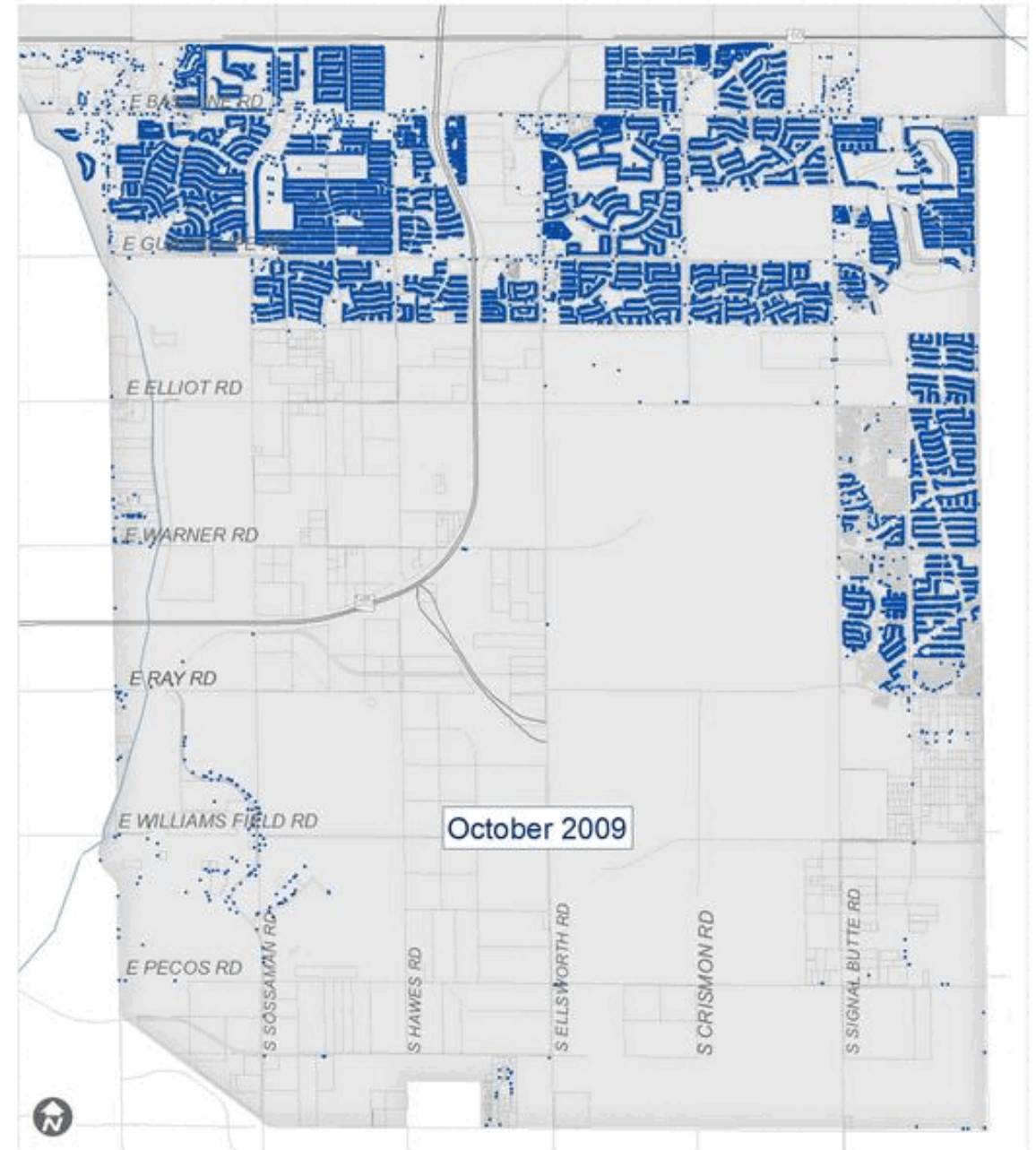


Water Consumption

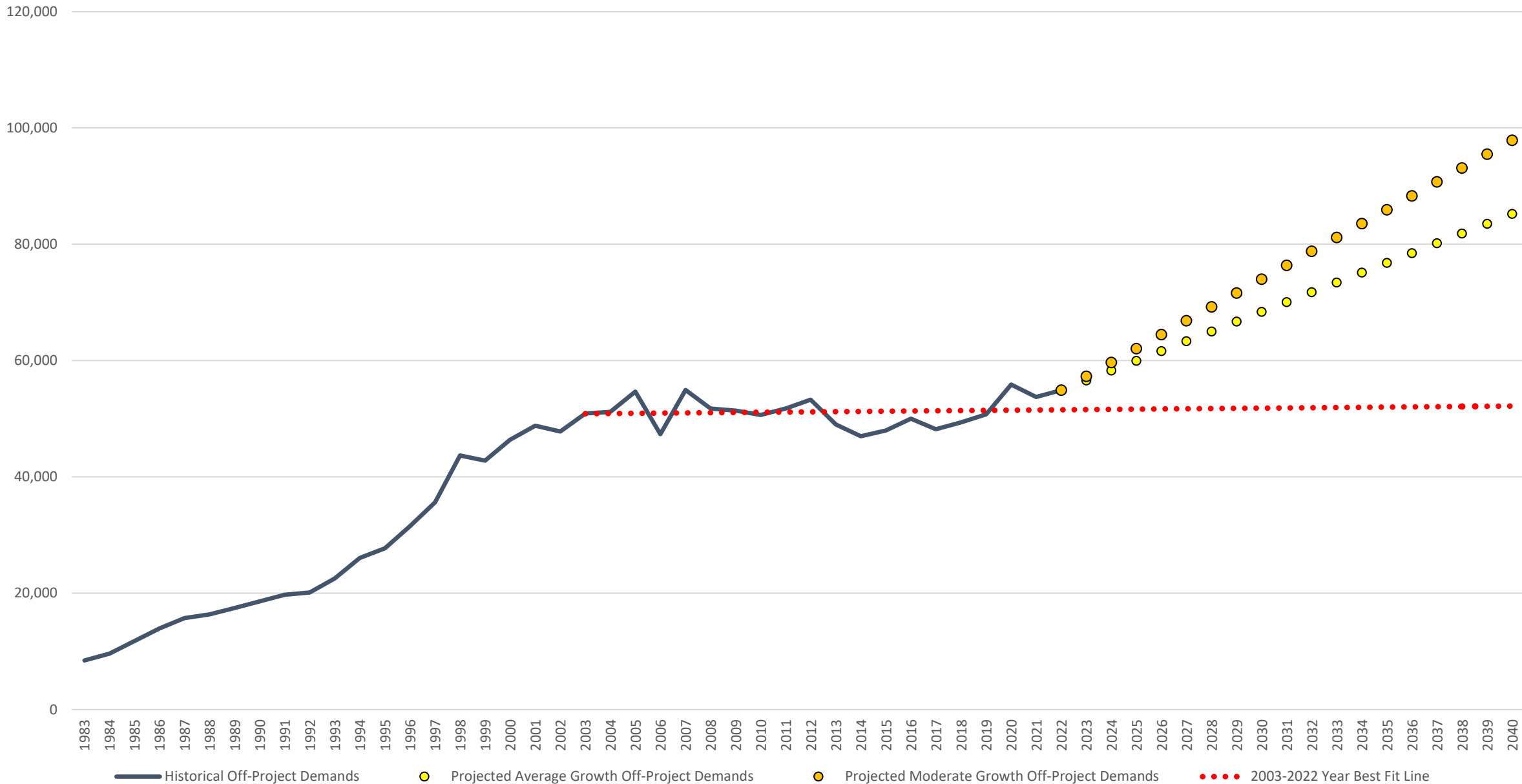


Off-Project CAP Demand

- Following Graph shows SE Mesa water demands from 1983 to Buildout (assumed to be 2040)
- 3 Scenarios for future demands
 - No growth
 - Average Growth used the 50th percentile
 - Moderate Growth used the 75th percentile



Off-Project CAP Surface Water Demand

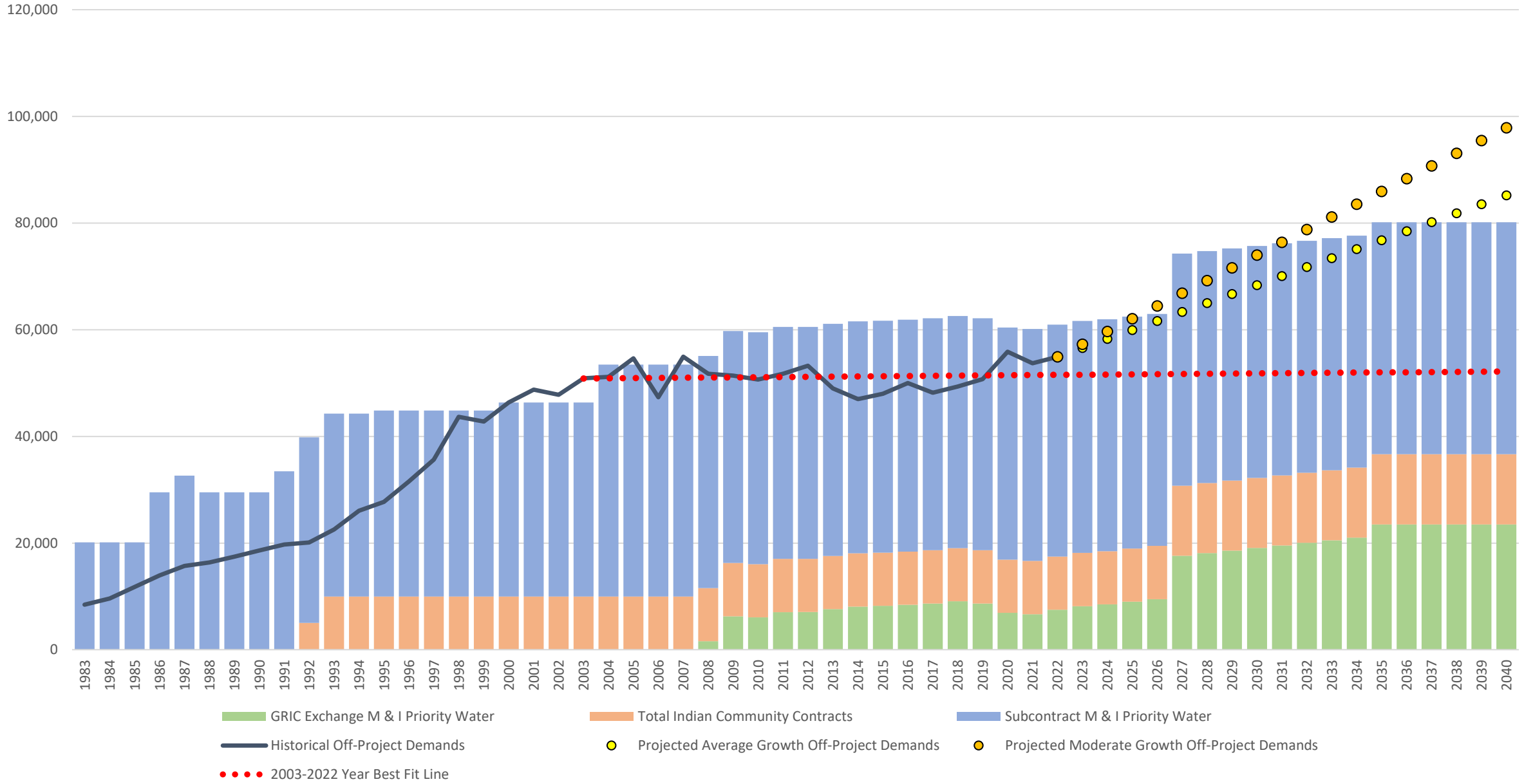


Off-Project CAP Surface Water Supply vs Demand

- Graph shows Colorado river water rights from 1983 to Buildout (assumed to be 2040)
- CMRP is shown coming online and producing water credits in 2027
- In the 2 growth scenarios demand exceeds the CAP Surface water supply prior to buildout



Off-Project Water Supply vs Demand

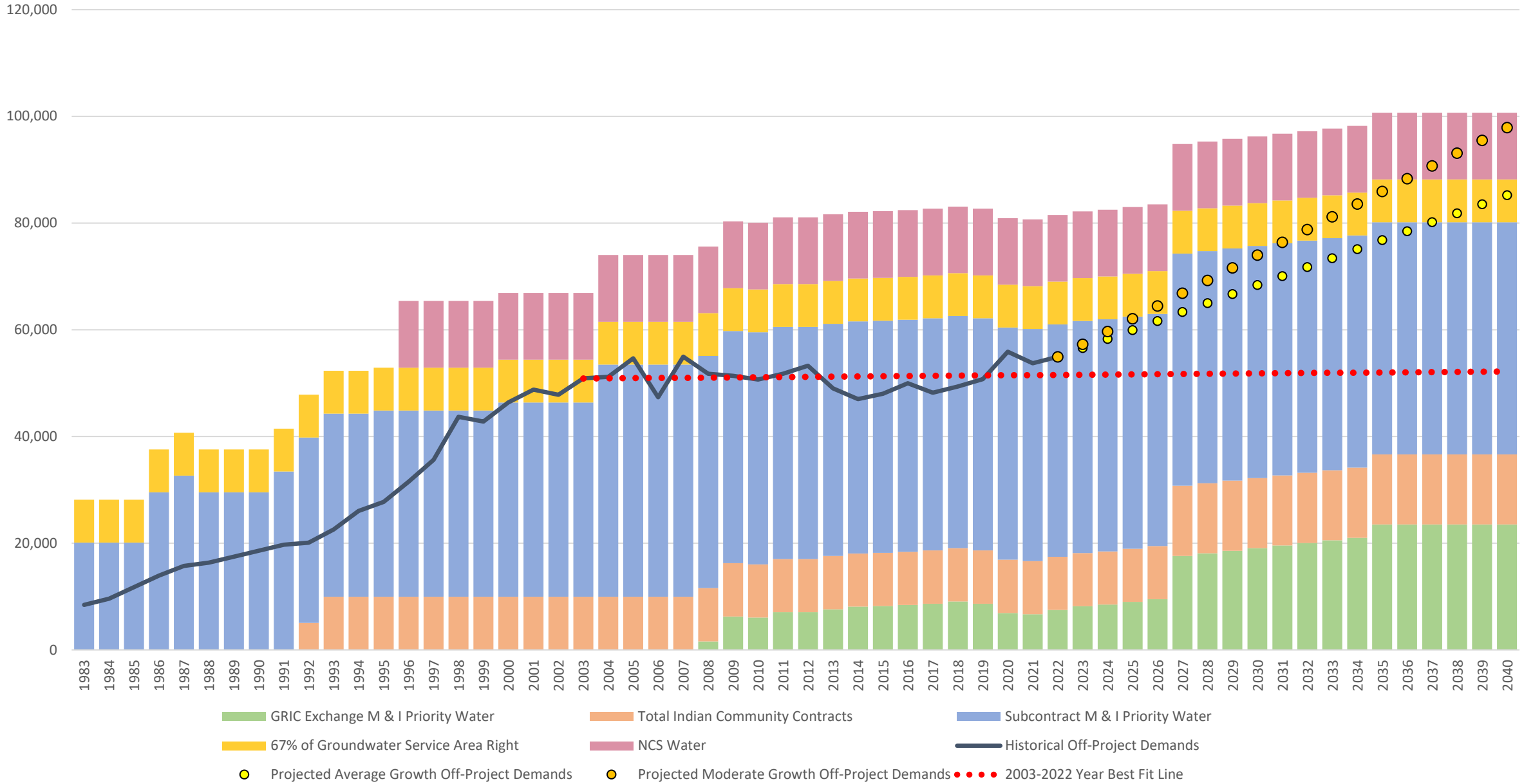


Off-Project CAP Surface, GW and NCS Water Supply vs Demand

- Graph shows Colorado river water rights plus surface area groundwater and New Conservation Space (NCS) water
- 12,500 acre-feet NCS per 100-year assured water supply
- 2/3 on Groundwater Service (8,000 acre-feet) used Off-project, the remaining 1/3 would be used On-project



Off-Project Water Supply vs Demand

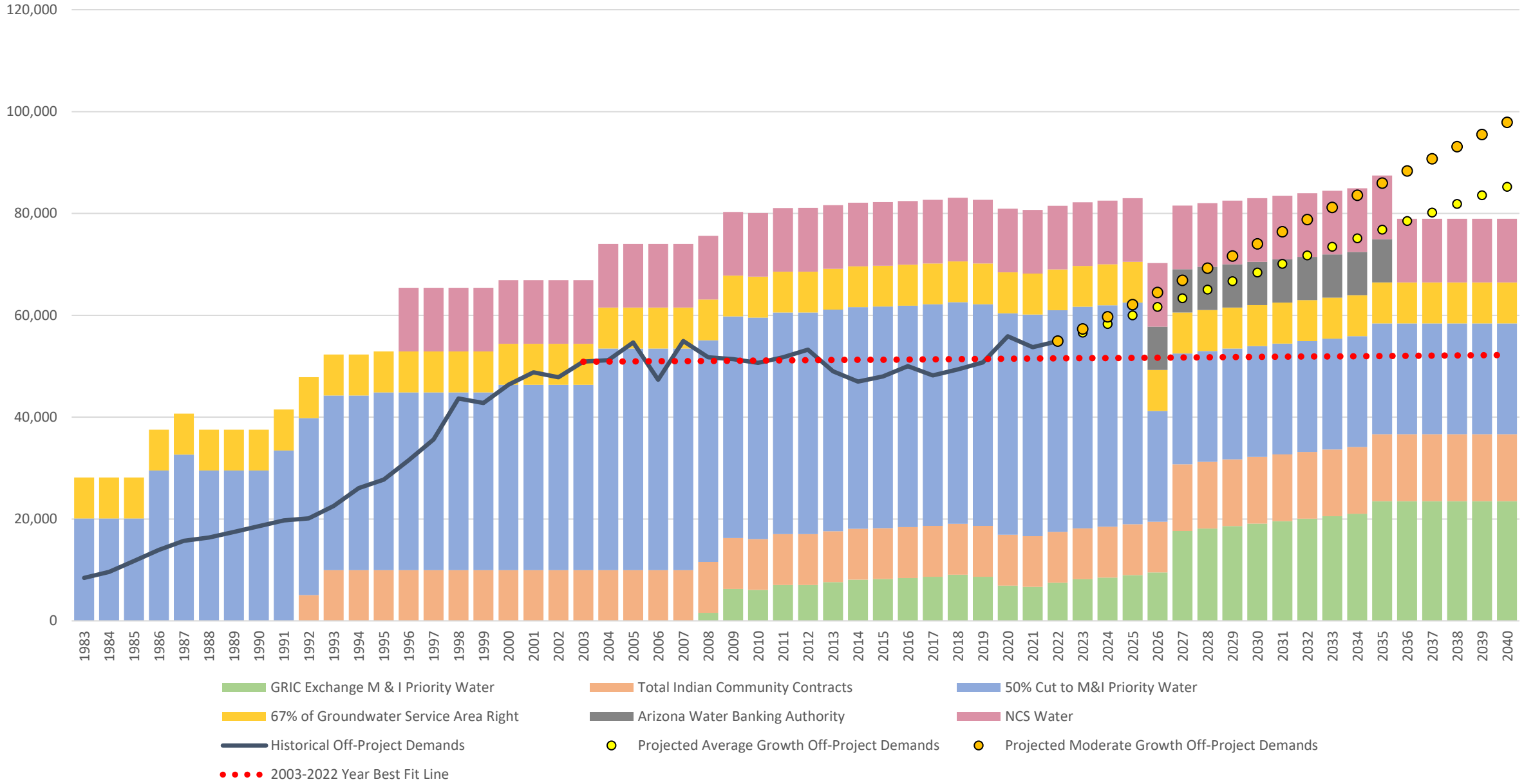


50% Cut to M&I Only

- Graph shows Colorado river water rights with a 50% cut to M&I water
- 8,500 AF/yr of long-term storage credits from Arizona Water Banking Authority for 10 years



50% Cut to Off-Project Water Supply vs Demand

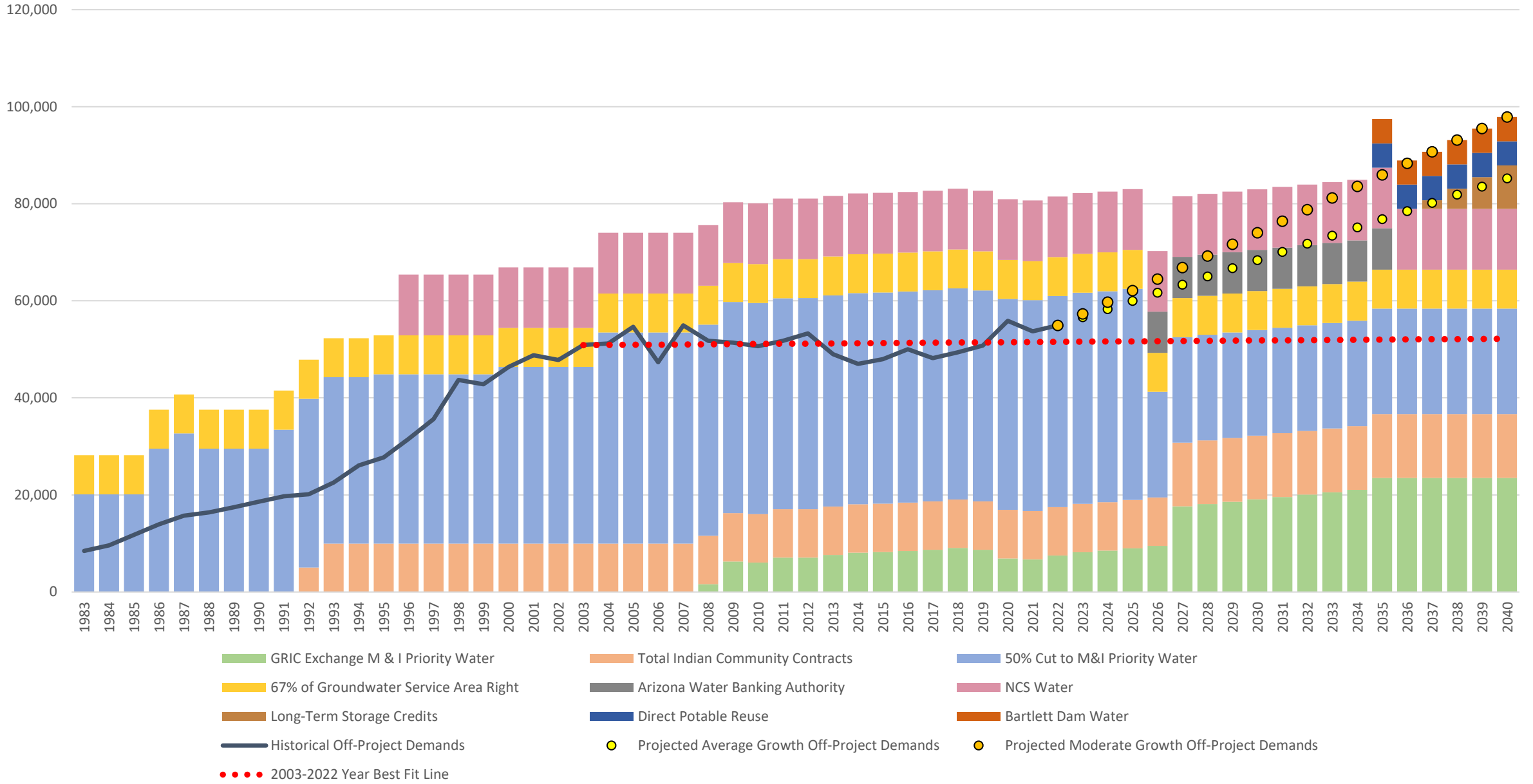


50% Cut to M&I Only with Additional Supplies

- 5,000 acre-feet from raising Bartlett Dam
- 5,000 acre-feet direct potable reuse at 91st Ave WWTP.
- Mesa has over 540,000 acre-feet in LTSC, 5,400 acre-feet available per year
- LTSC increased to meet Moderate growth demands will last about 74 years.



50% Cut to Off-Project Water Supply vs Demand



Conclusion

- Majority of the remaining vacant parcels are Non-Residential, which are very difficult to predict water demands
- The Moderate growth scenario shows what would happen if Southeast Mesa continued to attract large industrial water users
- Significant CAP cut scenarios will require conservation and additional alternative water supplies.





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