

Management Plans Work Group



August 20, 2019

Agenda

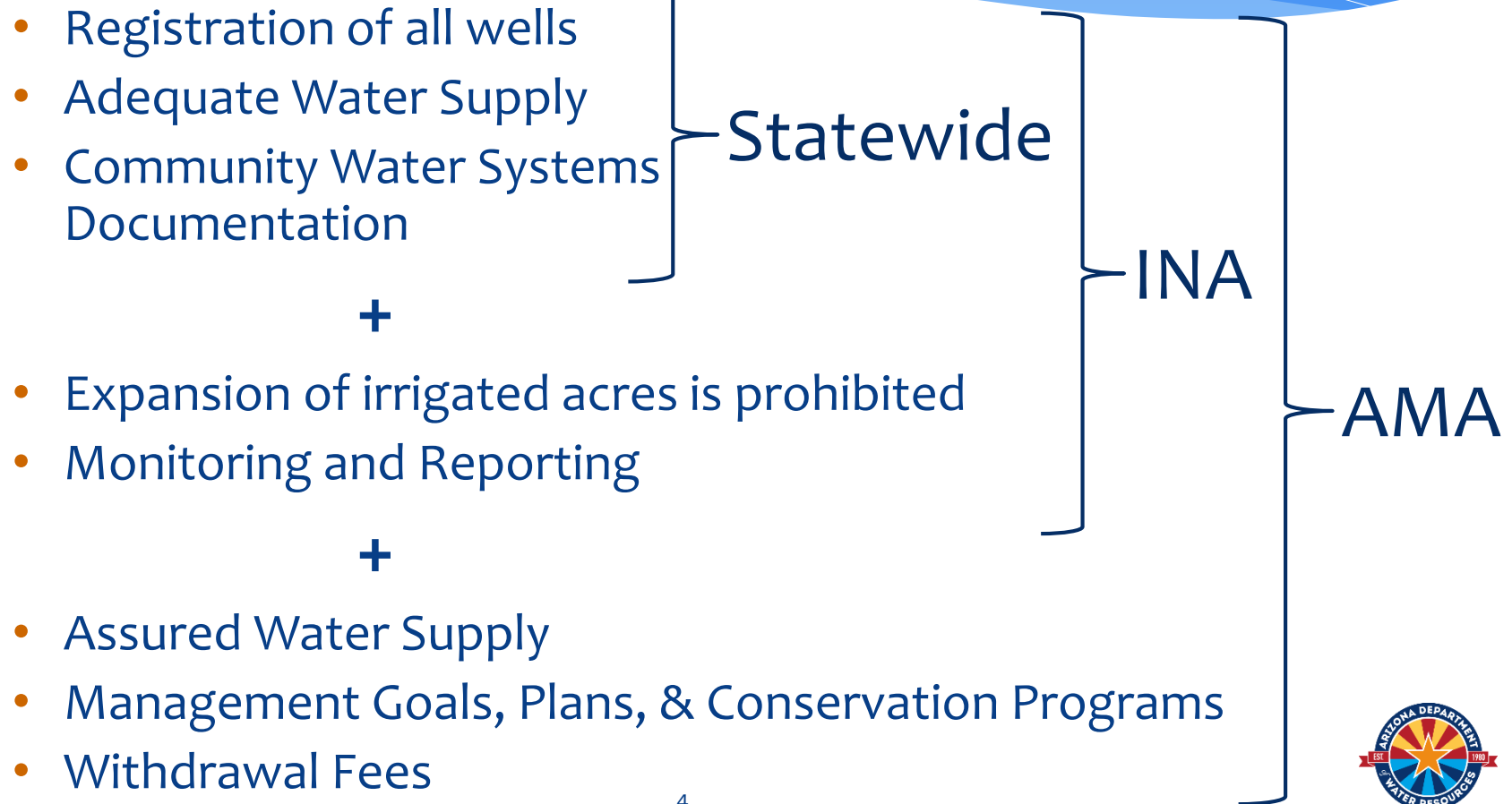
- I. Welcome and Introduction
- II. Overview of AMA Data
- III. Future Meetings & Logistics
- IV. Closing Remarks



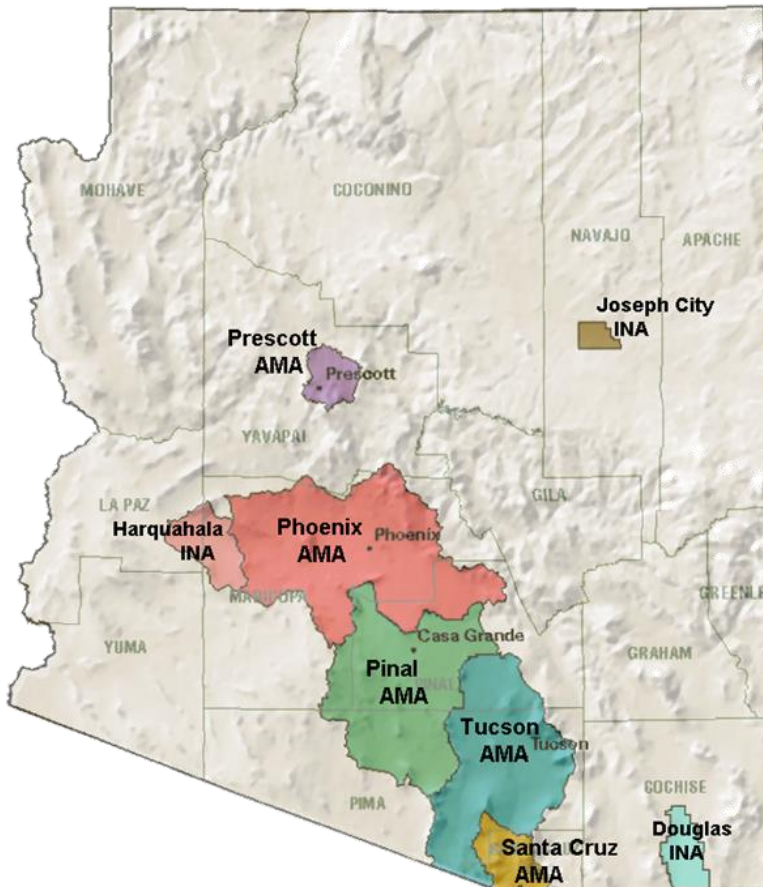
Overview of AMA Data



Regulatory Structure



Active Management Areas (AMA) & Irrigation Non-Expansion Areas (INA)



Five AMAs

- Prescott AMA
- Phoenix AMA
- Pinal AMA
- Tucson AMA
- Santa Cruz AMA

Three INAs

- Joseph City INA
- Harquahala INA
- Douglas INA

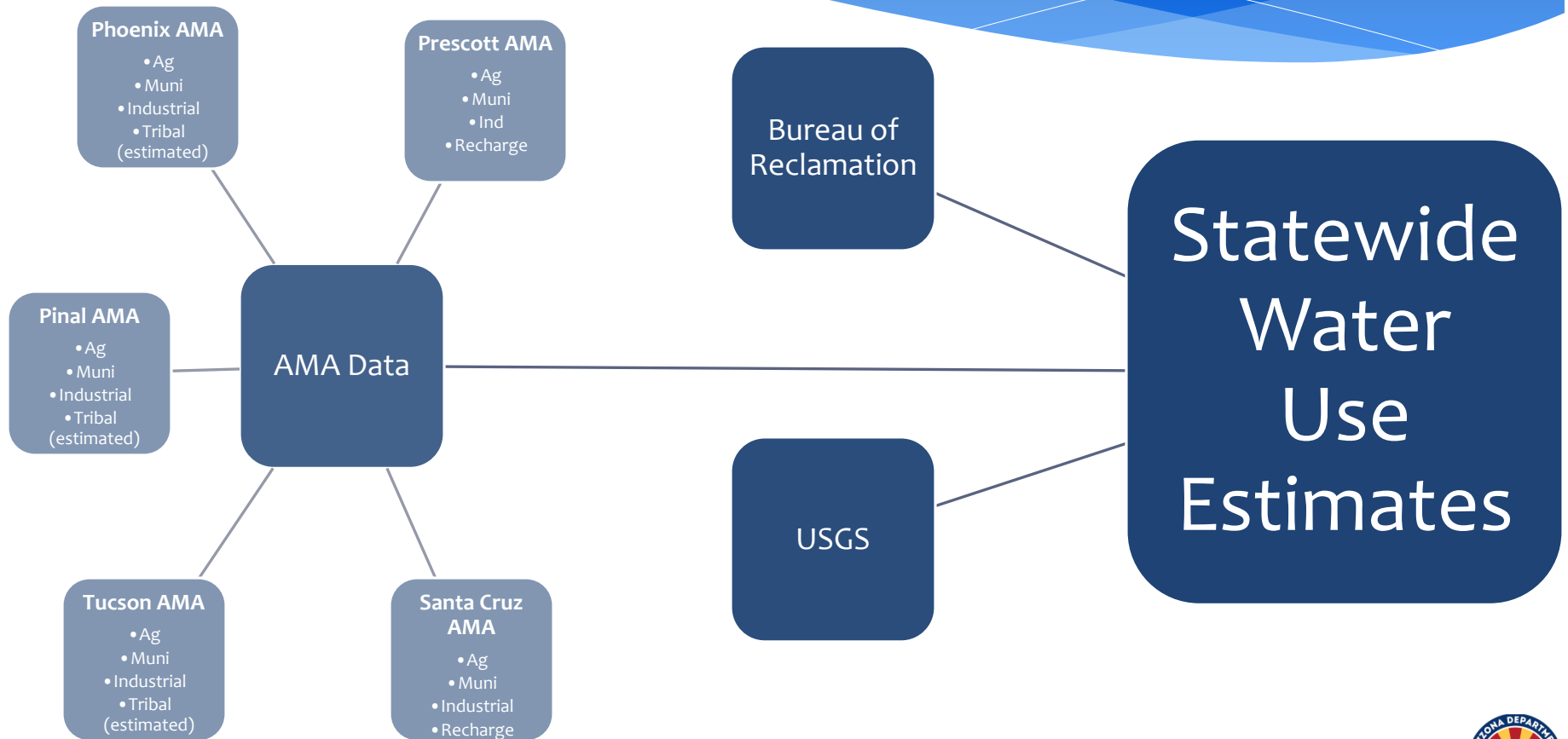


AMA Annual Reports

- * Non-exempt wells (>35 gpm) inside AMAs and INAs must meter well pumpage.
- * Users subject to reporting requirements must submit Annual Water Withdrawal and Use Reports –
 - Due March 31st each year
 - * Volume of groundwater pumped by well
 - * Report movement of water
 - * Types and Volumes of Water Delivered/Received
 - * Types and Volumes of Water Stored/Recovered
 - * Generation/Discharge of Effluent
 - * May report types of end use
 - * Additional information related to conservation requirements or any other information the director deems necessary



ADWR Data Compilation



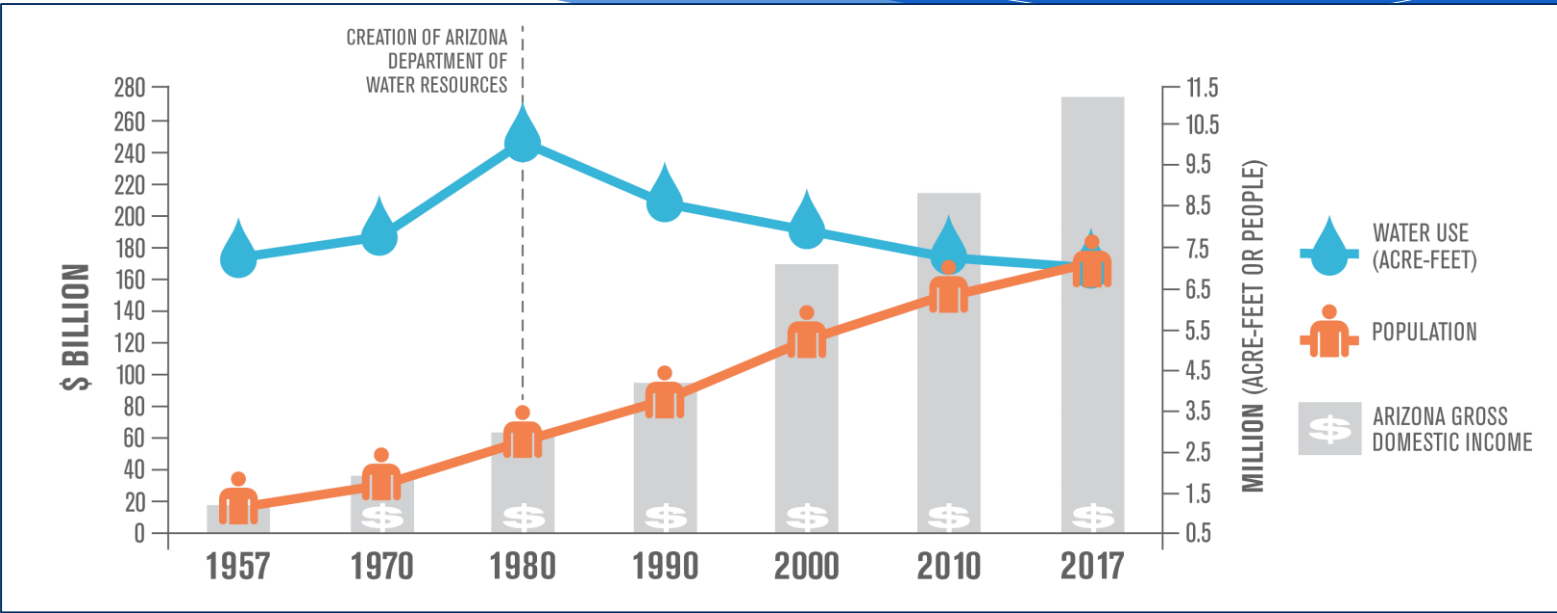
7
Compiled AMA data is available at new.azwater.gov/ama/ama-data
Statewide Water Use information is available at www.arizonawaterfacts.com



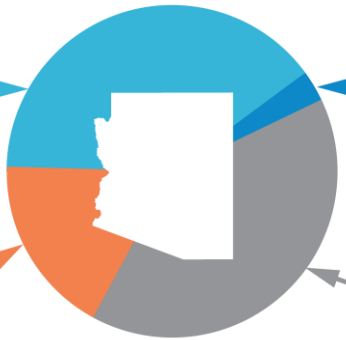


Statewide Water Use Estimates

(2017)



36%
COLORADO RIVER

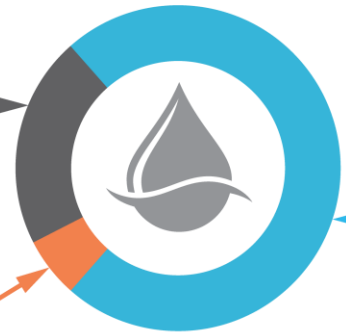


3%
RECLAIMED WATER

21%
IN-STATE RIVERS

40%
GROUNDWATER

21%
MUNICIPAL USE



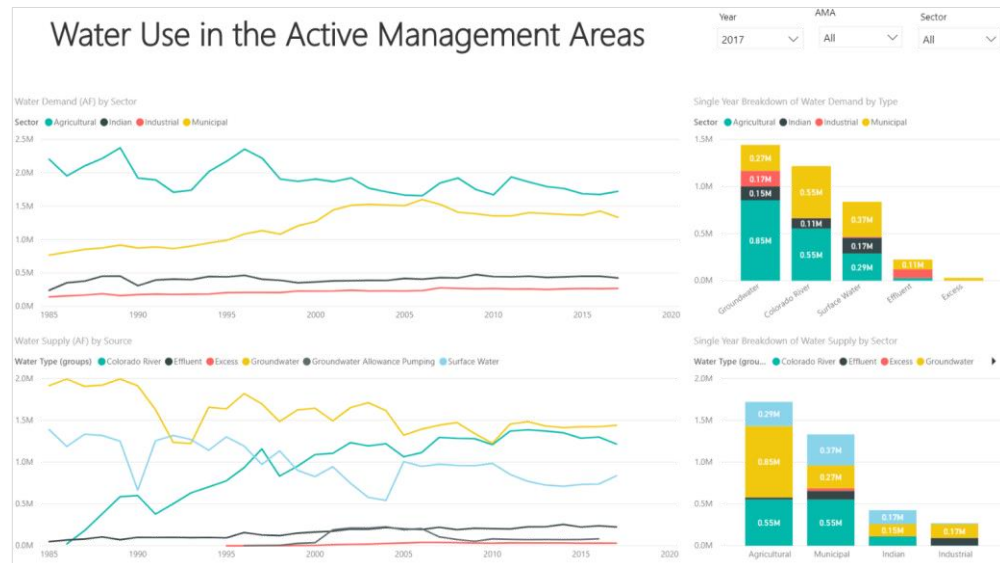
74%
AGRICULTURAL USE

5%
INDUSTRIAL USE

AMA Data Page

- * Data Summary Templates for each AMA
- * Interactive Dashboard
- * Downloadable Datasets
- * Data Glossary

<https://new.azwater.gov/ama/ama-data>



Other Data

- * ADWR Estimates
 - * Tribal water use inside the AMAs
 - * Exempt well water use inside the AMAs
- * ADWR Regional Groundwater Models
 - * ADWR Well Level Monitoring
- * CAGRDR Replenishment
- * Bureau of Reclamation
 - * Colorado River Diversions and Consumptive Use
 - * Contributions to Lake Mead
- * USGS
 - * Water Use Estimates outside the AMAs
- * US Census
- * US Bureau of Economic Analysis



Data Quality and Reliability

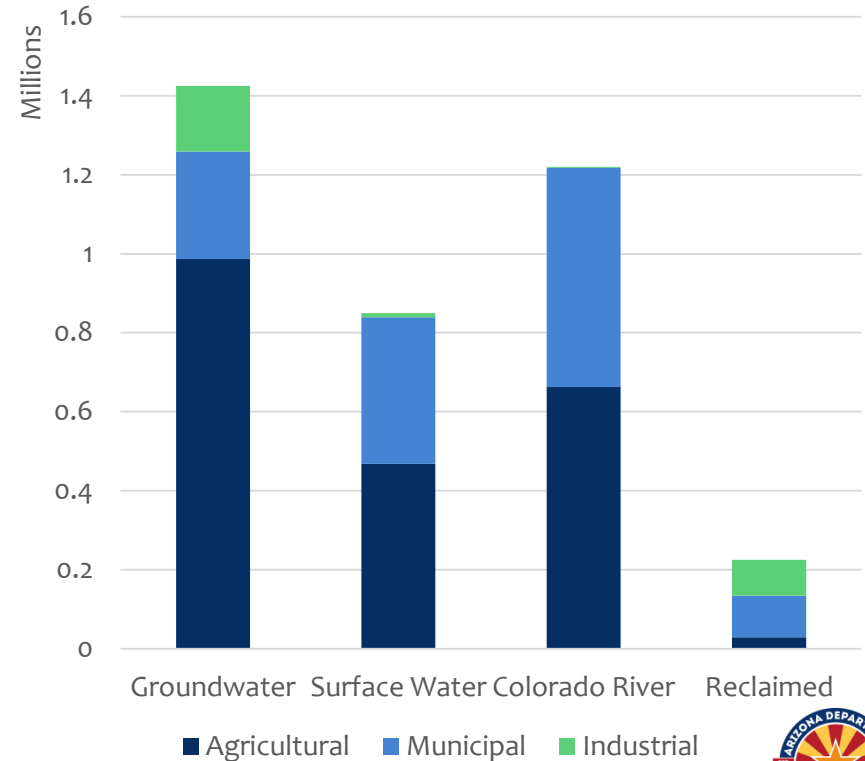
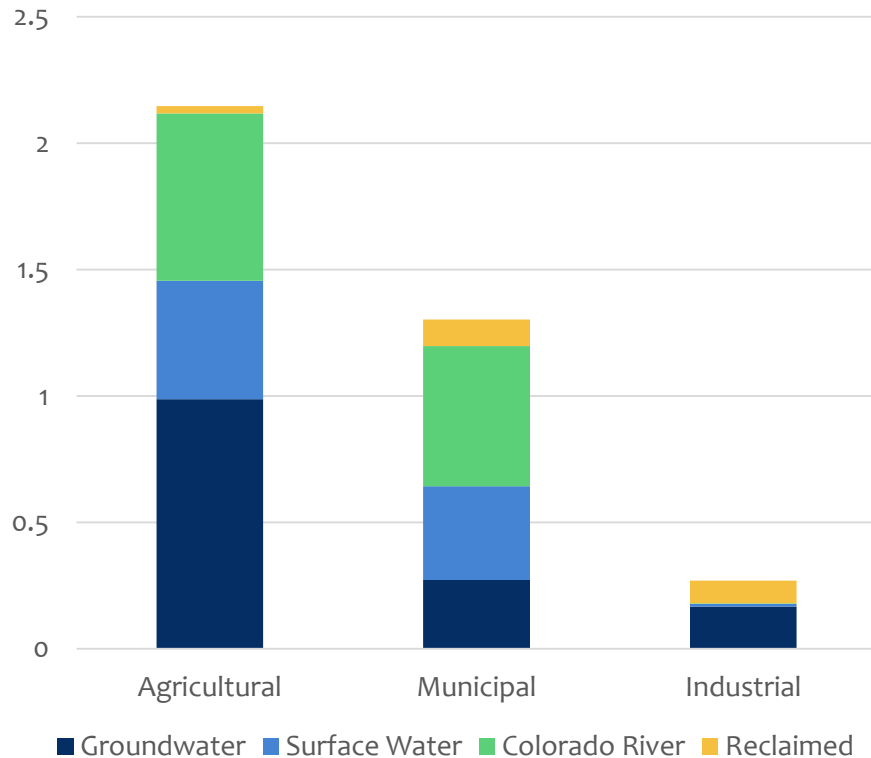
- * ADWR is working to improve its strategies and structures around data quality, with a goal of increasing data consistency and transparency.
- * All Annual Reports undergo a QA/QC process, but ultimately we rely on the reporting party for accurate and high-quality data.
- * Different data sources may have different levels of confidence and reliability.
 - * Annual Reports
 - * USGS Groundwater Estimates
- * Gaps in Available Data
 - * Example: Actively Irrigated Acreage inside AMAs

Water Supply and Demand by AMA



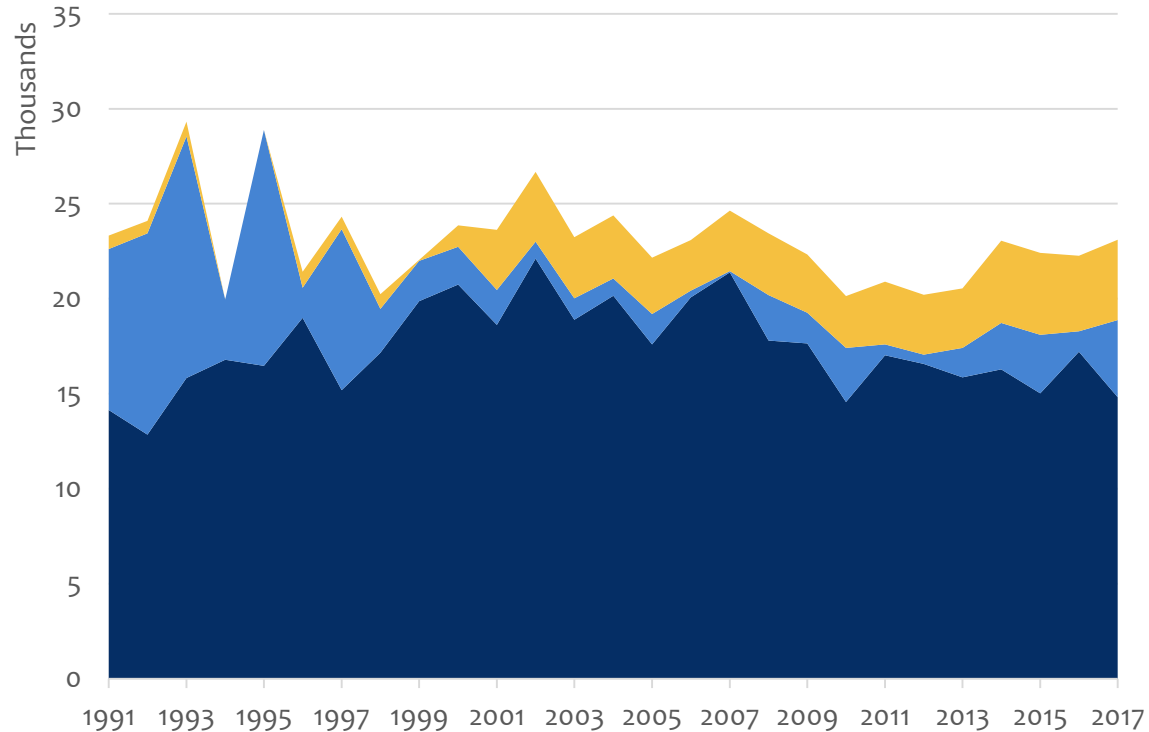
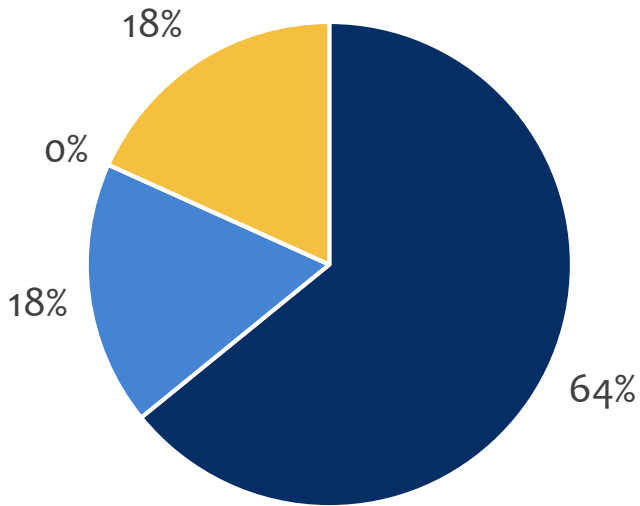
AMA Supply & Demand

The AMAs contain 80.2% of Arizona's population and represent 53.1% of Arizona's water use.



Prescott AMA Supply

2017

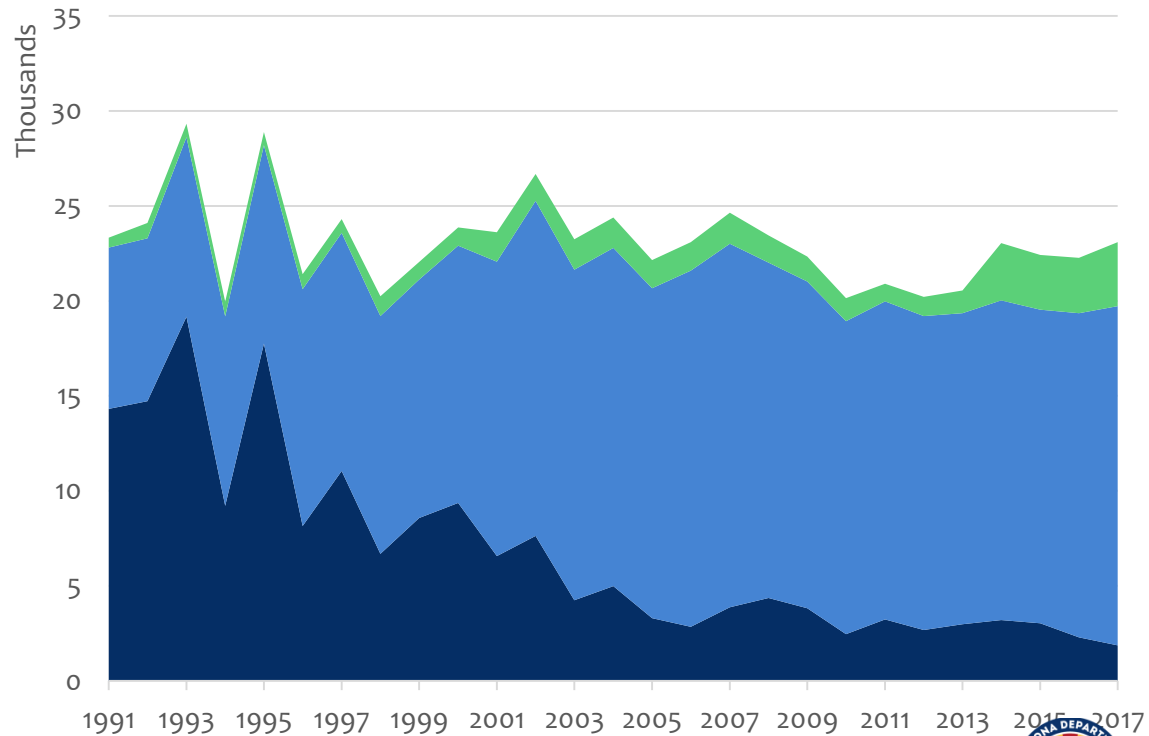
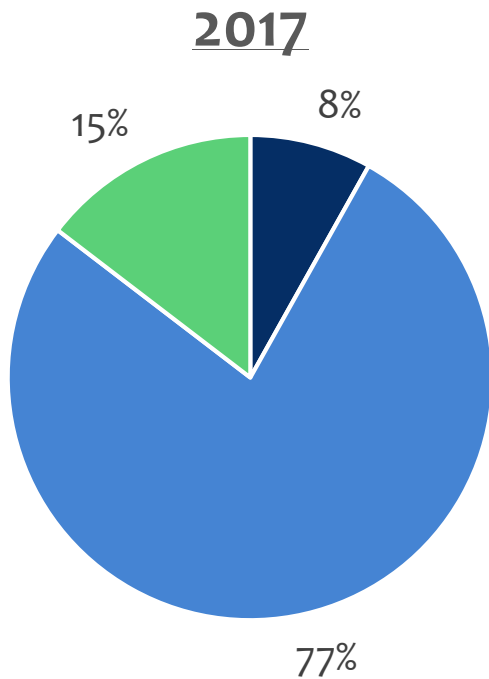


■ Groundwater
■ Colorado River

■ In-State Surface Water
■ Effluent



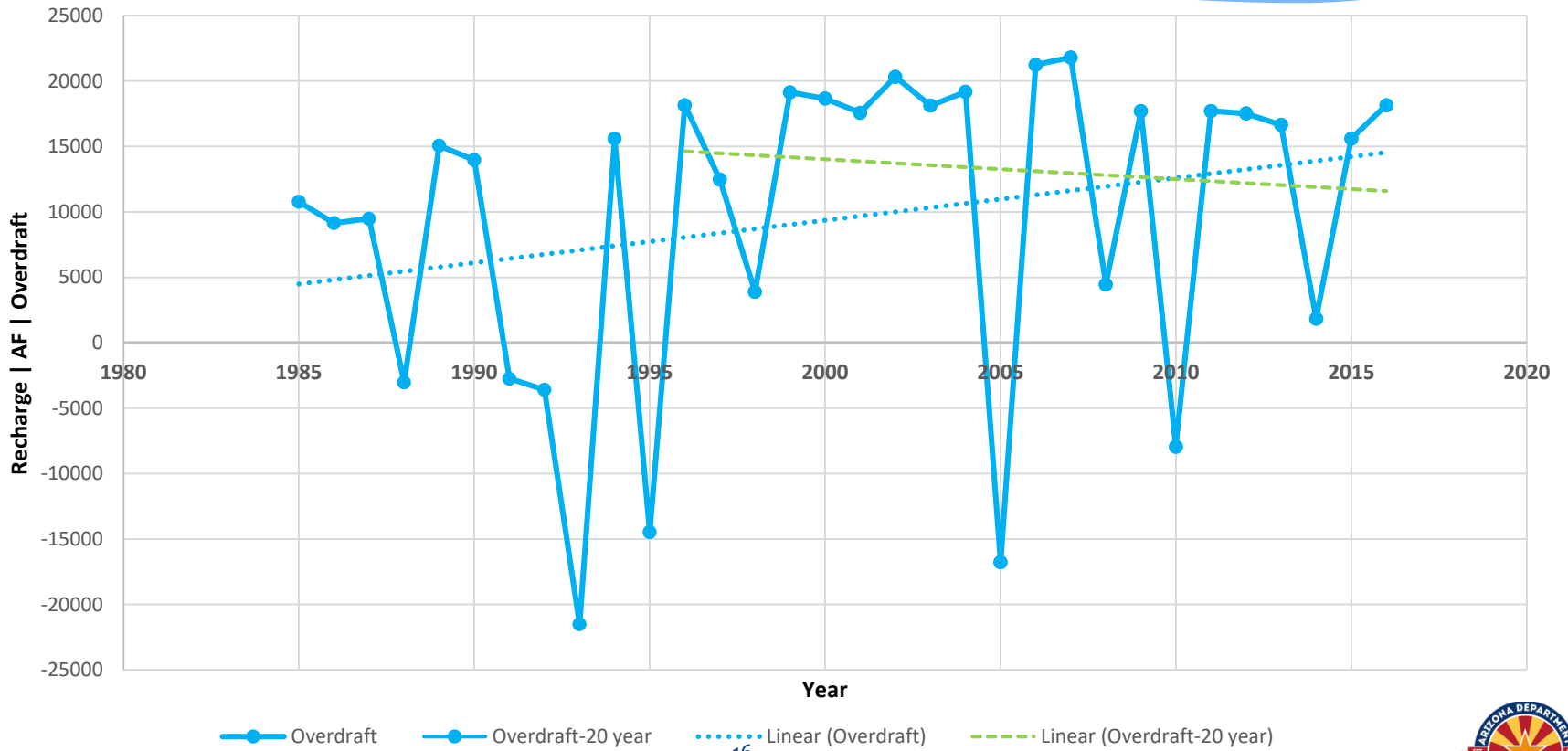
Prescott AMA Demand



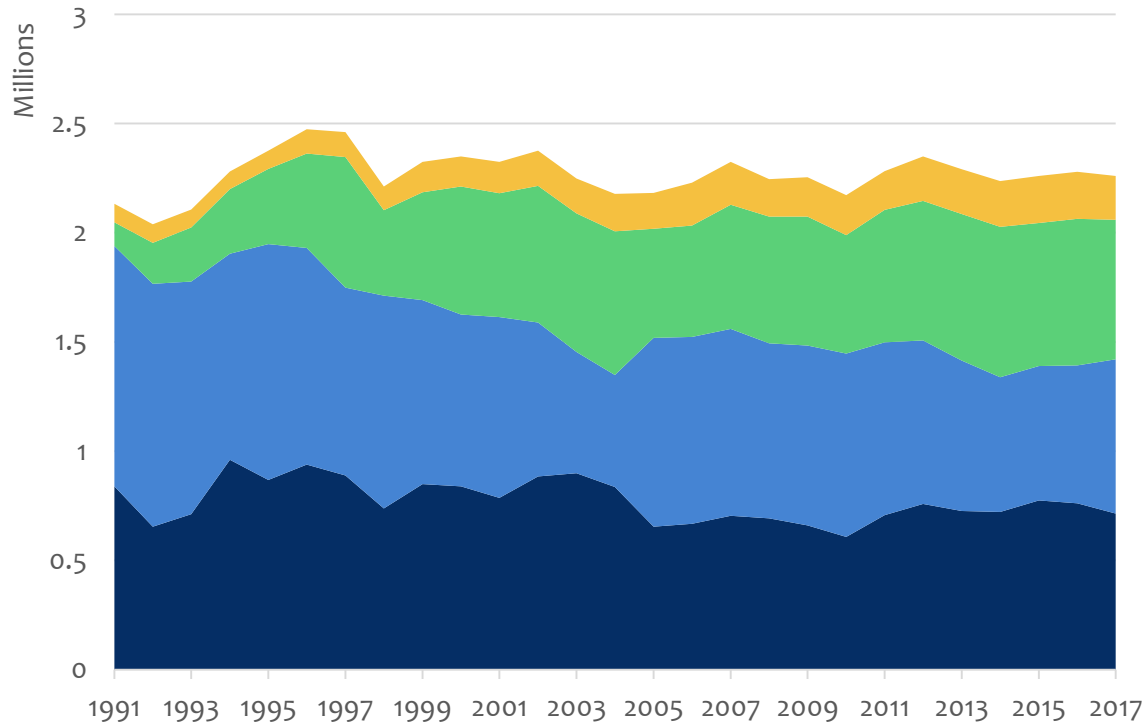
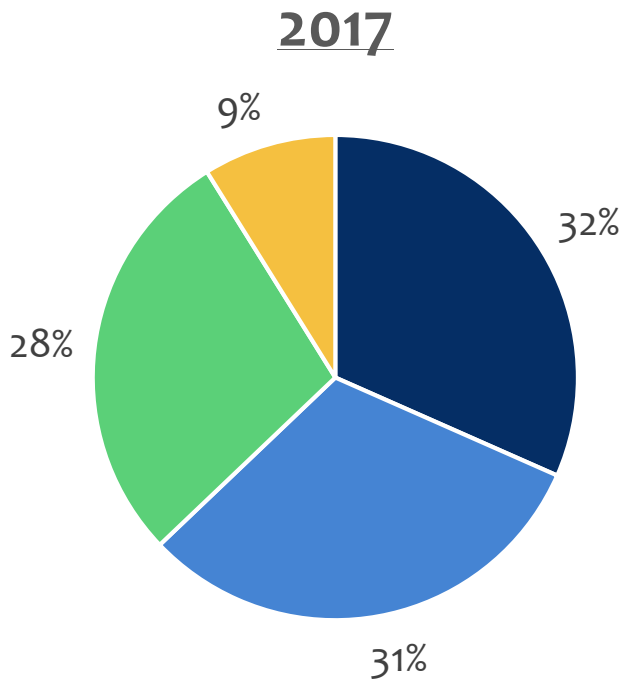
■ Agricultural ■ Municipal ■ Industrial



Prescott AMA Overdraft



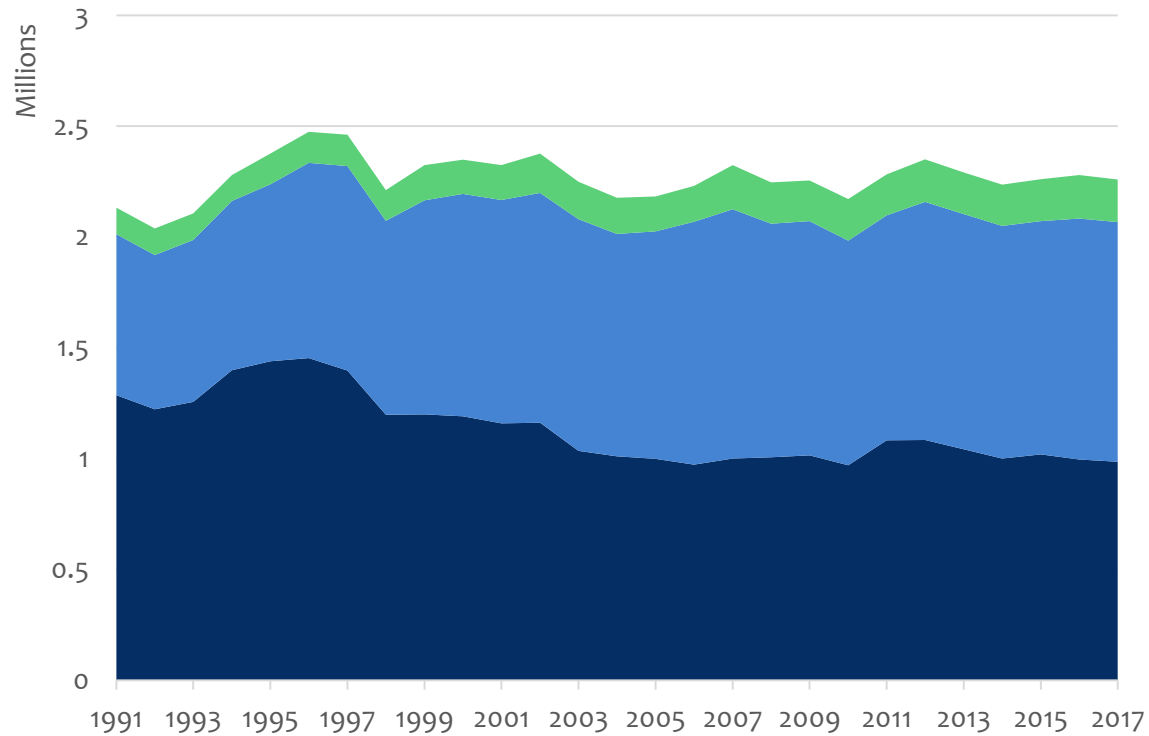
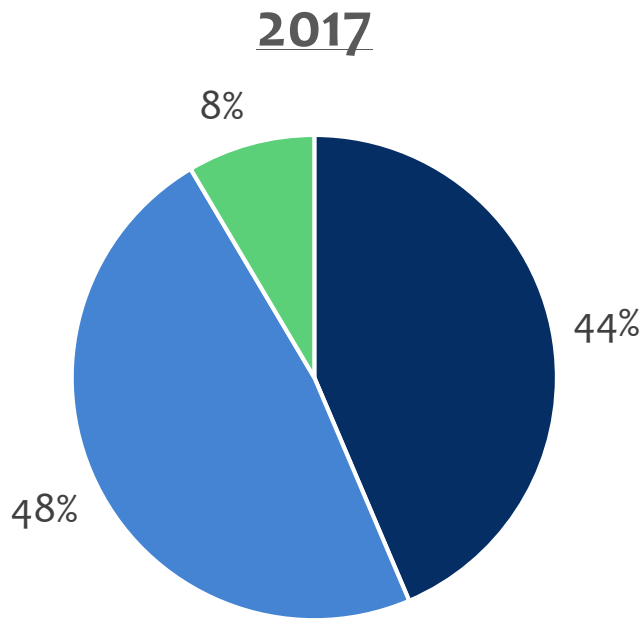
Phoenix AMA Supply



- Groundwater
- In-State Surface Water
- Colorado River
- Effluent



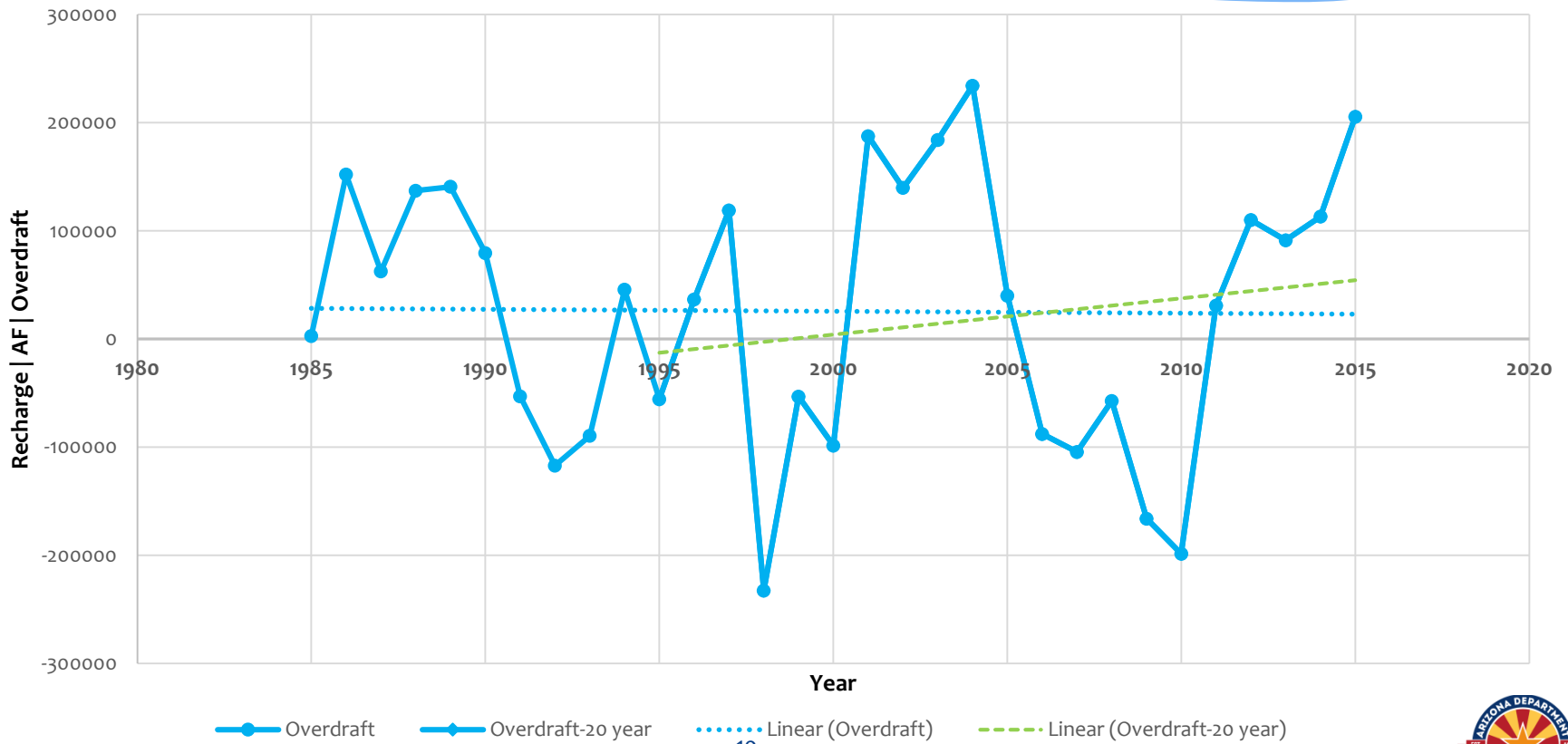
Phoenix AMA Demand



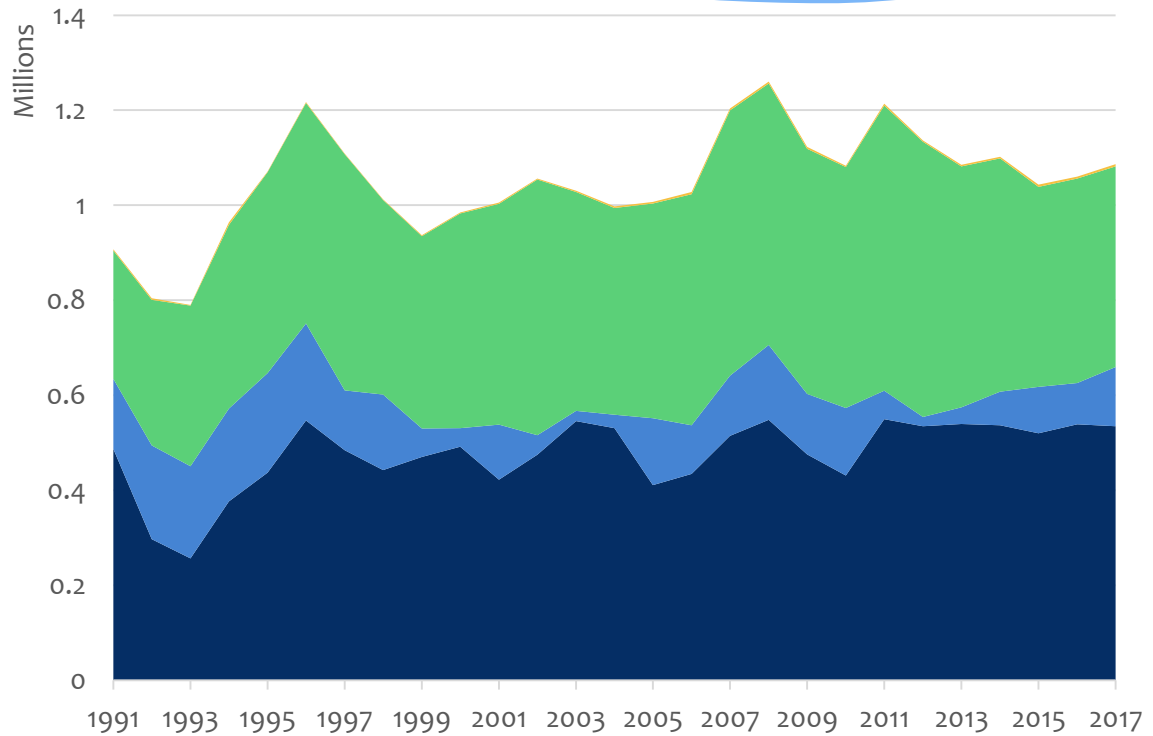
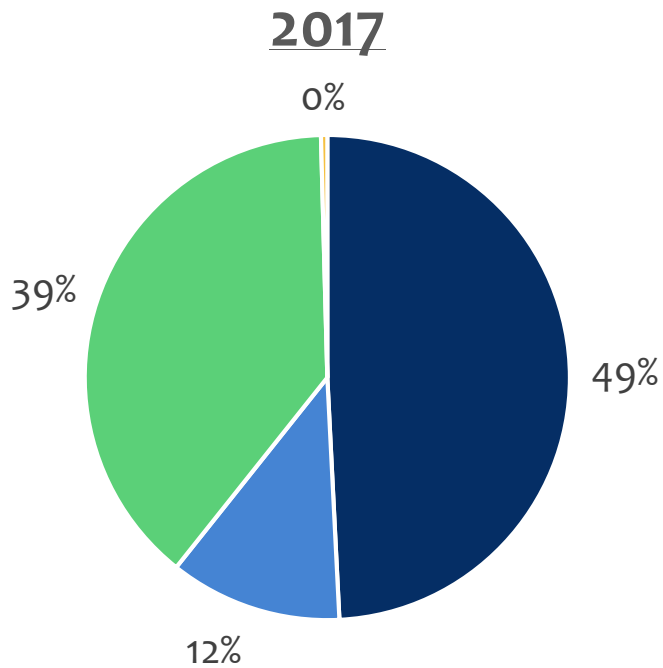
■ Agricultural ■ Municipal¹⁸ ■ Industrial



Phoenix AMA Overdraft



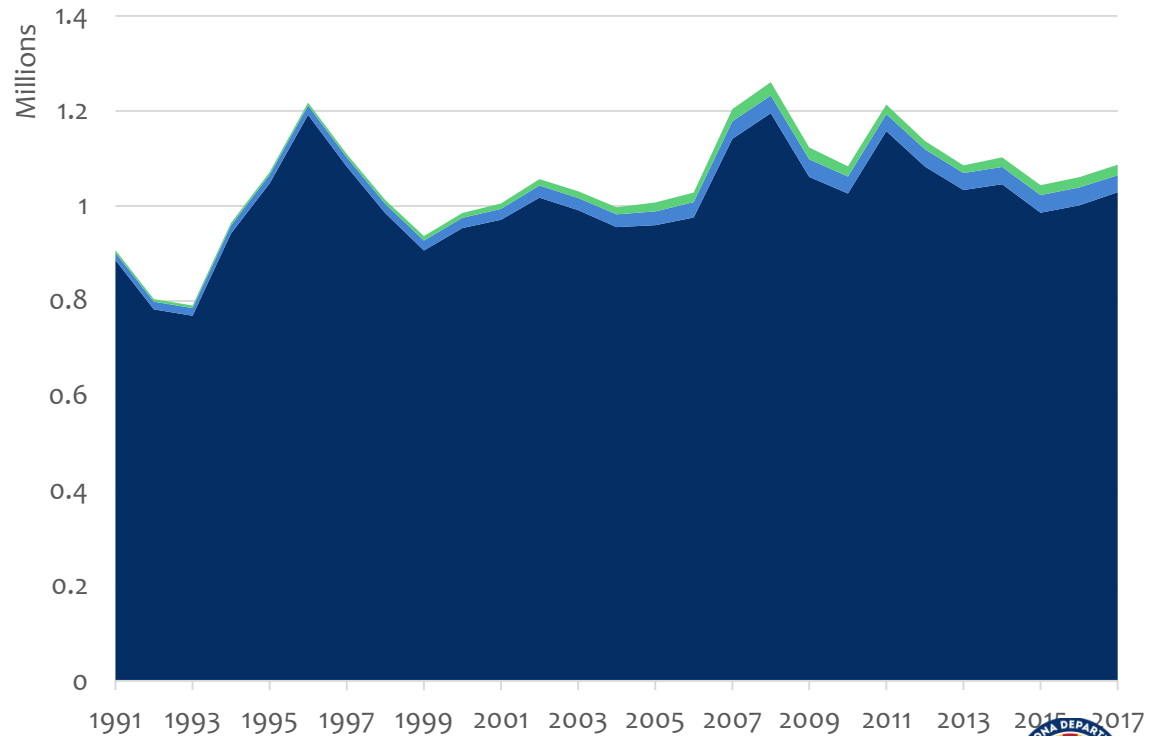
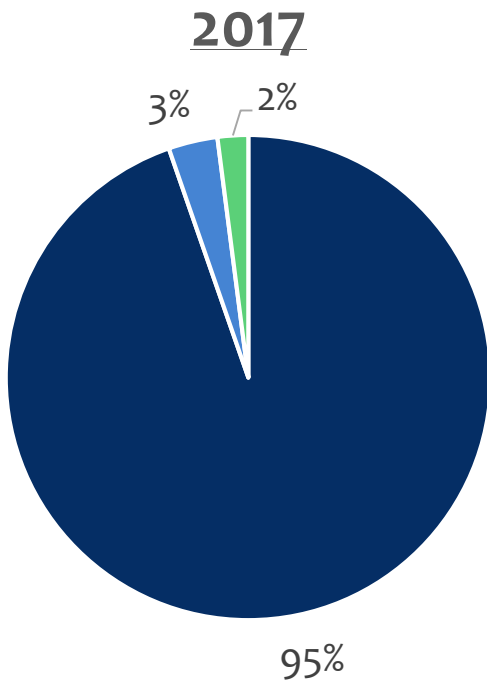
Pinal AMA Supply



- Groundwater
- In-State Surface Water
- Colorado River
- Effluent



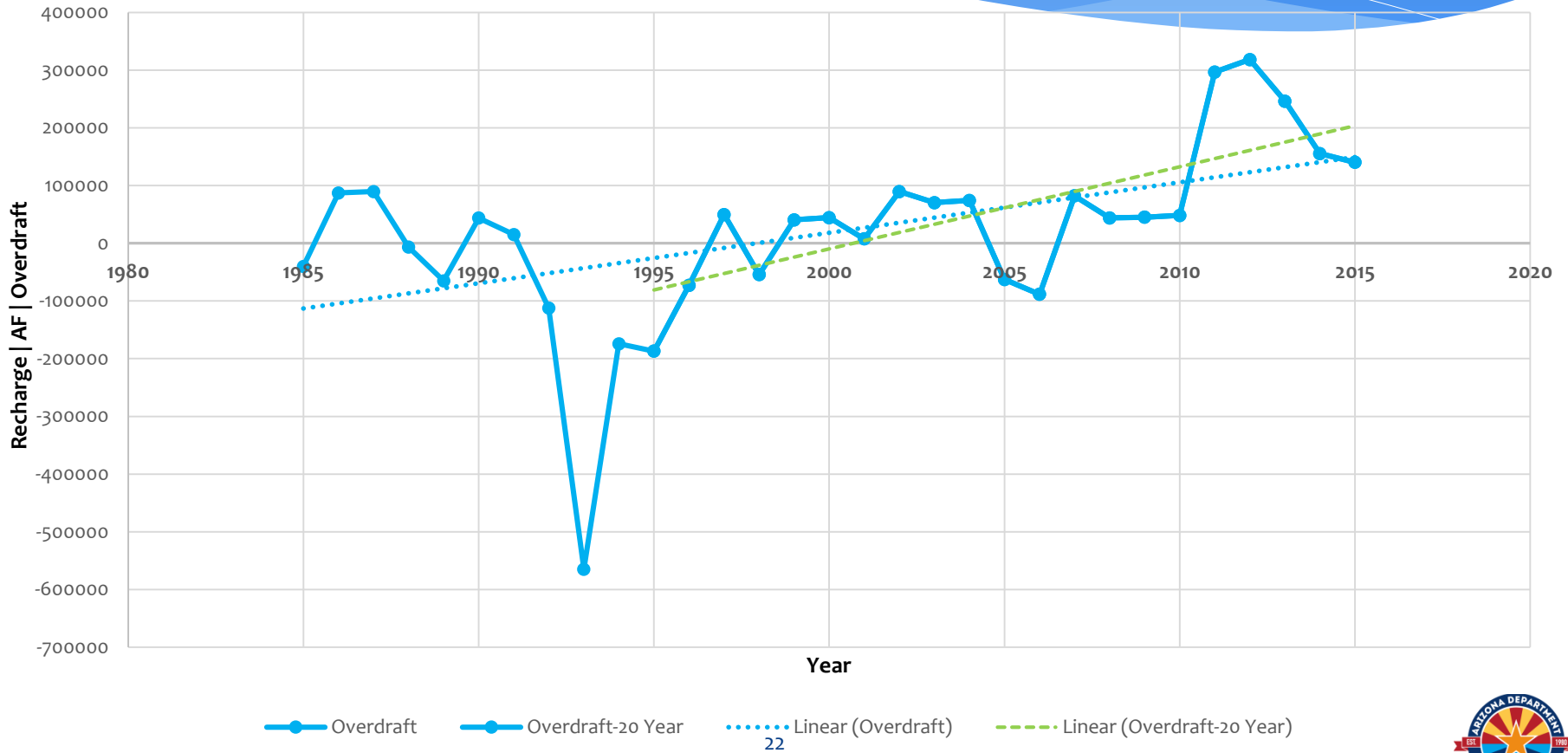
Pinal AMA Demand



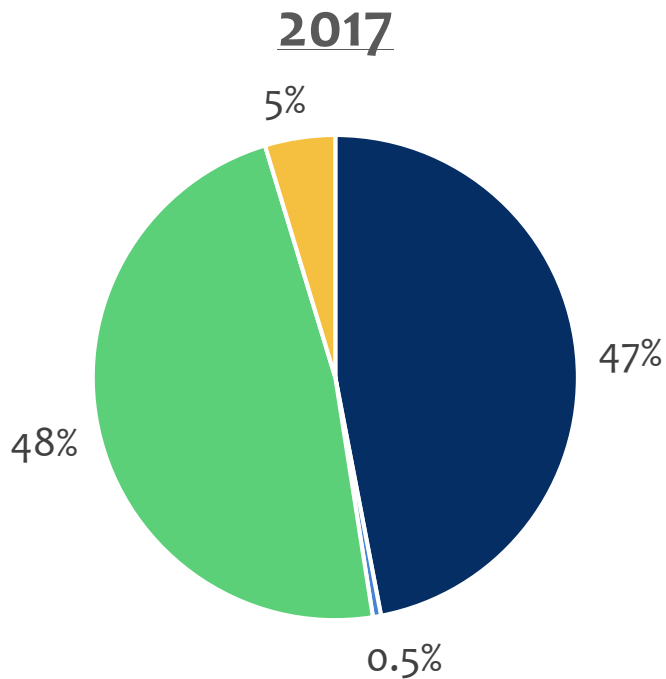
■ Agricultural ■²¹ Municipal ■ Industrial



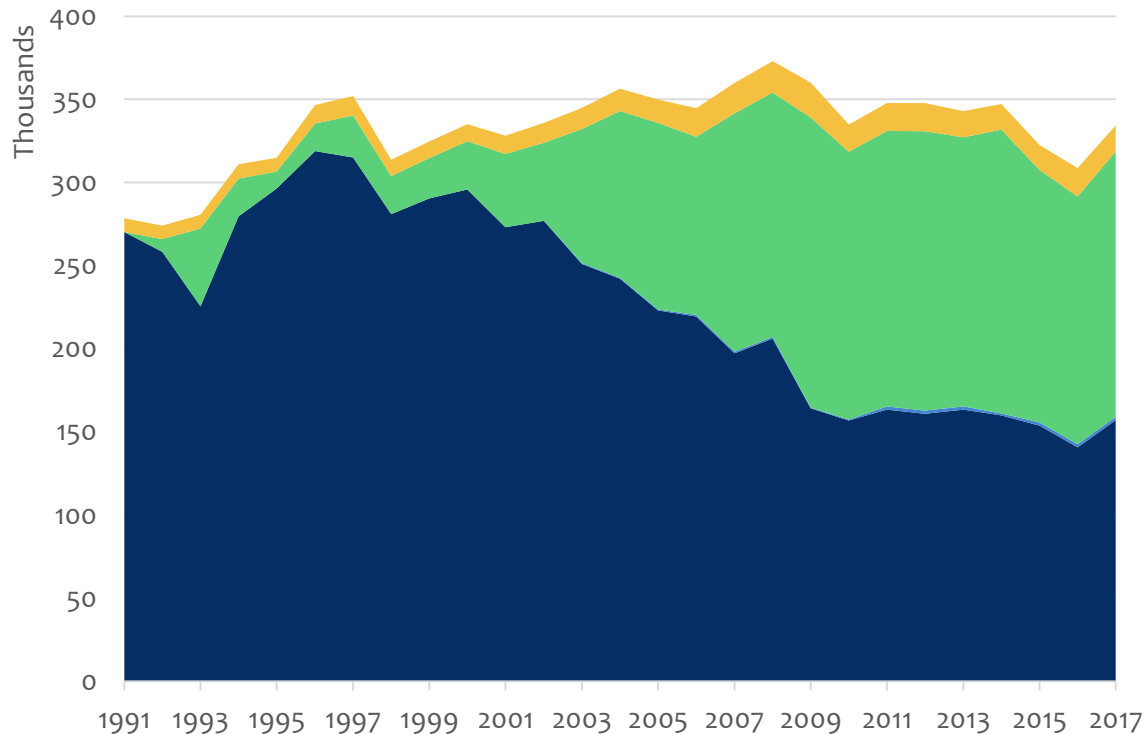
Pinal AMA Overdraft



Tucson AMA Supply



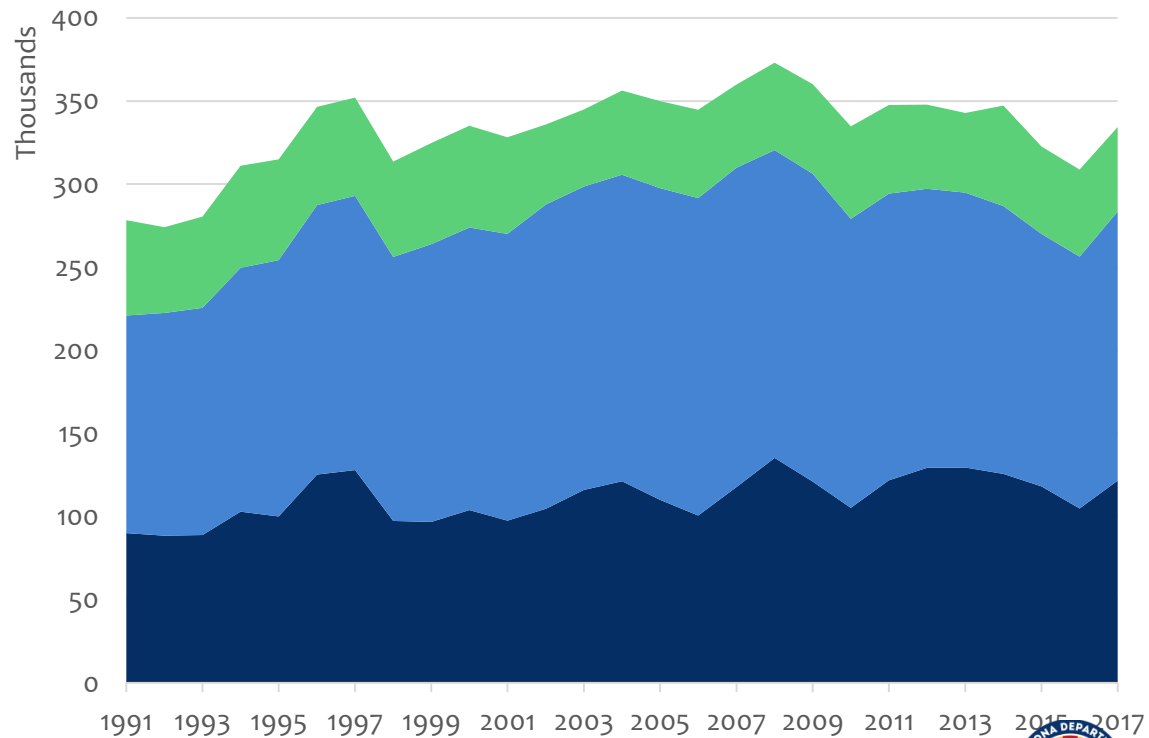
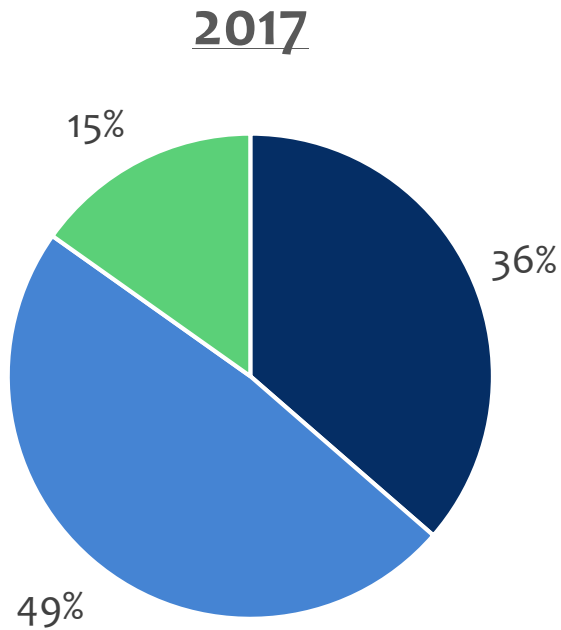
■ Groundwater
■ Colorado River



■ In-State Surface Water
■ Effluent



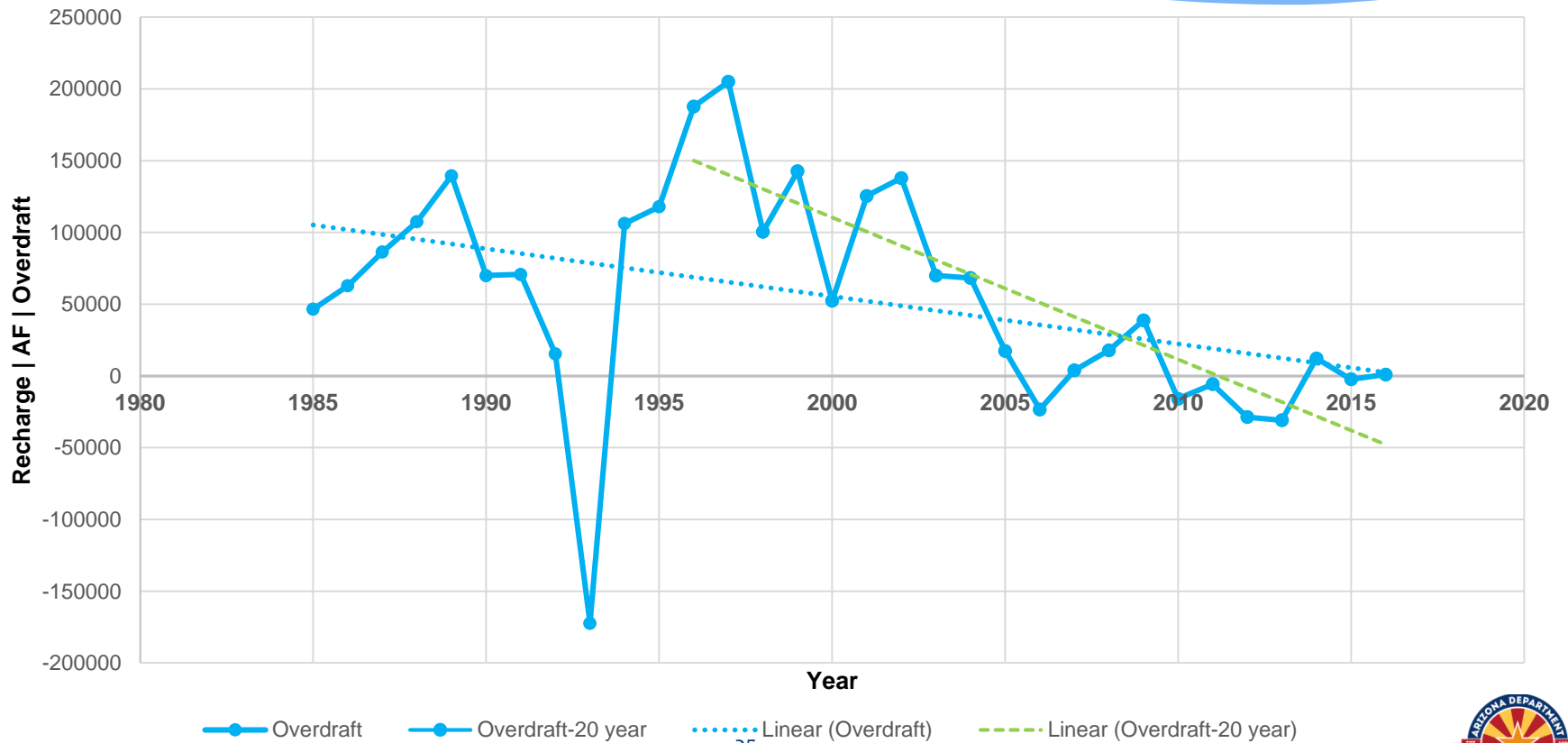
Tucson AMA Demand



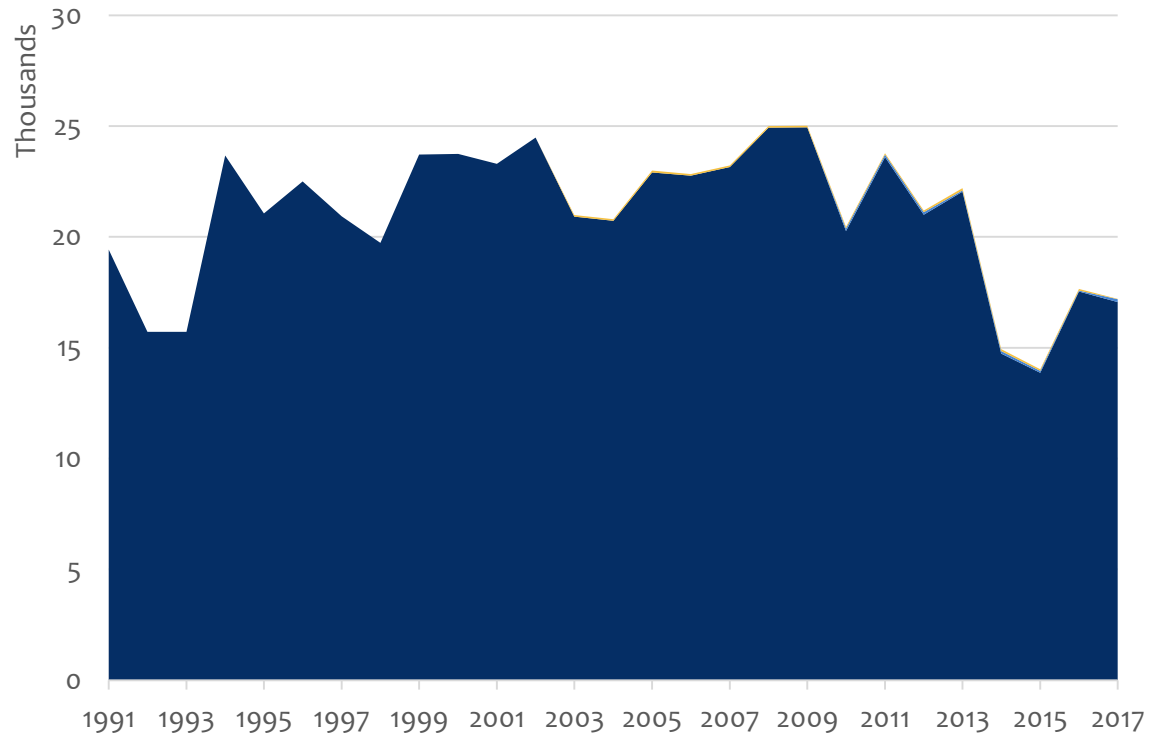
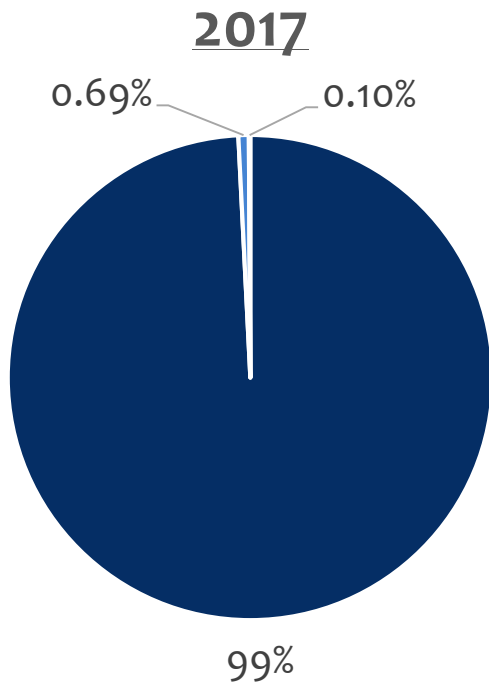
■ Agricultural ■ Municipal ■ Industrial



Tucson AMA Overdraft



Santa Cruz AMA Supply

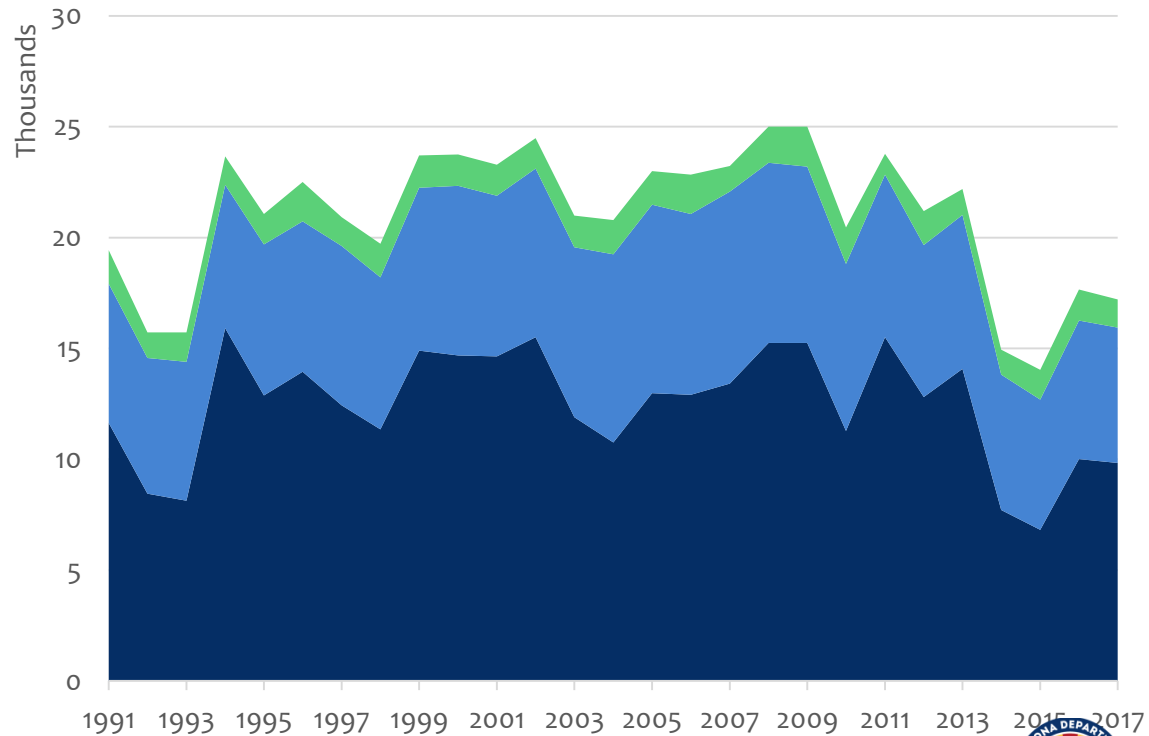
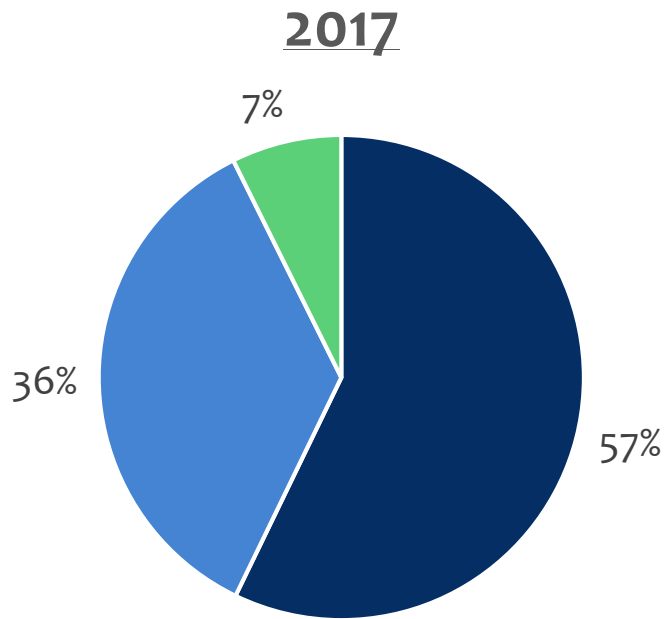


- Groundwater
- Colorado River

- In-State Surface Water
- Effluent



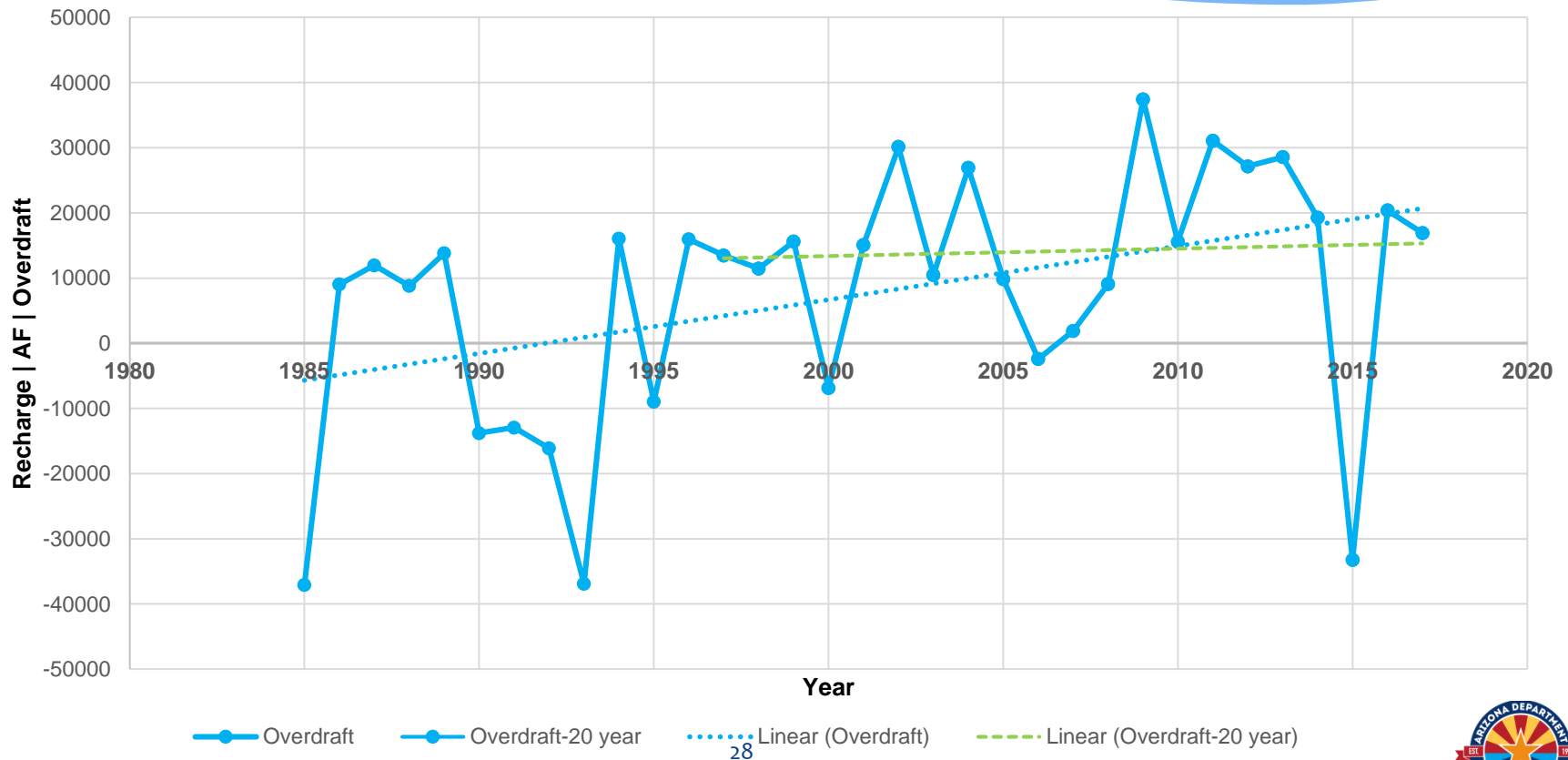
Santa Cruz AMA Demand



■ Agricultural ■²⁷ Municipal ■ Industrial

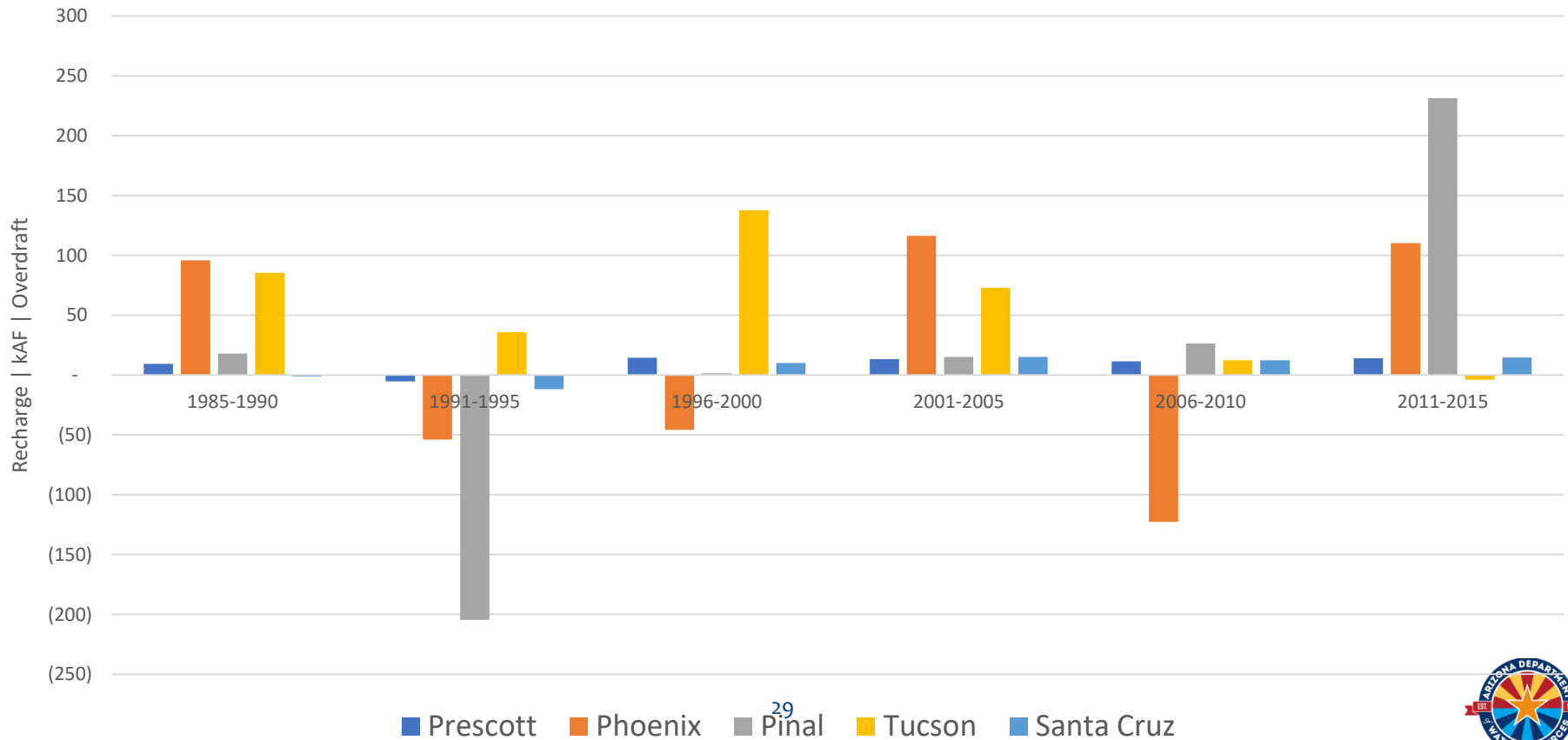


Santa Cruz AMA Overdraft



Overdraft Summary

5-year Averages



Data Analysis and Application

- * Management Plans
 - * Analyzing the Effectiveness of the Conservation Programs
 - * Informing the Development of new Programs and Policies
 - * Analyzing Safe-Yield and Progress toward the Goals
- * Role of each Sub-Group
 - * What questions should we be asking of the data?
 - * Developing Methodology
 - Transparency through collaboration and through the eventual publication of a Conservation Progress Report

Data Availability

- * ADWR is actively working to improve data transparency and availability.
- * All ADWR data is public record.
 - * Various datasets are available via online [live queries](#).
 - * Others could be made available or are available by request.
 - * AMA Data Page: <https://new.azwater.gov/ama/ama-data>
 - * Recharge Dashboard:
<https://new.azwater.gov/recharge/accounting>

Ideas for Data Improvements

- * Potential Additional Analyses
 - * Other breakdowns, charts, or comparisons
- * Potential Additional Data Sources or Reporting
- * Focus
 - * Statewide
 - * AMA
 - * How do they compare to each other?
 - * Sector or user? Sub-basins?
- * Success stories or areas for improvement
- * How can we best communicate this information and the stories in this data ?
 - * What are the stories here and how can we best share them?
 - * Incorporating dashboards into public webpages

Future Meetings and Logistics



Next Meetings

First Round of Sub-groups meetings will focus on data specific to that group/sector and goals for the group.

SEPTEMBER 2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4 Municipal	5 Agricultural	6	7
8	9	10 Industrial	11	12	13	14
15	16	17	18	19	20	21
22	23	24 Safe-Yield Technical	25	26	27	28
29	30					

- * Municipal
 - * 9/4 at 1pm
- * Agricultural
 - * 9/5 at 1pm
- * Industrial
 - * 9/10 at 1pm
- * Safe-Yield Technical
 - * 9/26 at 1pm

Next full MPWG meeting: 12/4 at 2pm



Logistics

- * Participation
 - * Open to anyone
 - * Looking for feedback and to learn from participants' expertise
 - * Expecting an open, collaborative, and solution-driven process
- * Webinar is available
- * Meeting Locations
 - * Subgroups: ADWR 4th Floor, Middle Verde Conference Room
 - * MPWG: ADWR 3rd Floor, Room #3175



Questions?

managementplans@azwater.gov

Management Plans Work Group:
new.azwater.gov/5MP

Full Text of Management Plans:
new.azwater.gov/ama/management-plans

