

Municipal Subgroup Kickoff Meeting

September 4, 2019



Agenda

- I. Introduction and Meeting Logistics
- II. Overview of Municipal Conservation Programs
- III. Overview of Historical Municipal Data
- IV. Discussion of Future Analyses
- V. Future Meetings
- VI. Closing Remarks



Meeting Logistics

- * Meetings are open to anyone who would like to participate.
- * We are looking for feedback and to learn from participants' expertise.
- * We are expecting an open and collaborative process, including opportunity to challenge ideas in a transparent manner.



Management Plans

A.R.S. § 45-563 (A)

“The director shall develop a management plan for each initial active management area for each of five management periods... and shall adopt the plans only after public hearings... The plans shall include a continuing mandatory conservation program... designed to achieve reductions in withdrawals of groundwater.”

Management Plans Work Group

ADWR-led stakeholder forum for the development of the 5th Management Plans

- * Goals:
 - * Assess existing conservation programs
 - * Update existing management strategies
 - * Develop new management strategies



Timeline

4MP

Phoenix
AMA
Adoption

Pinal
AMA
Adoption

Santa
Cruz
AMA
Adoption

2019

2021

202_?

202_?

MPWG

Drafting
Plans

Adopting
Plans

5MP



Overview of Municipal Conservation Programs



Management Plans

A.R.S. § 45-563 (A)

“The director shall develop a management plan for each initial active management area for each of five management periods... and shall adopt the plans only after public hearings... The plans shall include a continuing mandatory conservation program... designed to achieve reductions in withdrawals of groundwater.”



Statutory Requirements - Summary

A.R.S. § 45-564 et seq.	1MP	2MP	3MP	4MP	5MP
Calculate Water Duty	💧	💧	💧	💧	💧
Municipal GPCD Reduction	💧	💧	💧	💧	💧
Municipal Lost & Unaccounted for Water	💧	💧	💧	💧	💧
General Industrial Conservation	💧	💧	💧	💧	💧
Conservation for Untreated Providers		💧	💧	💧	💧
Conservation for Small Providers		💧	💧	💧	💧
Municipal Non-Per Capita Conservation		💧	💧	💧	💧
Incentives for Augmentation/Recharge		💧	💧	💧	💧
Assessment of Water Quality		💧	💧	💧	💧
Program for Conservation Assistance		💧	💧	💧	💧
Historical Natural Recharge		💧	💧	💧	💧
May Reduce Highest 25% of Water Duties			💧	💧	💧
Agricultural Historic Cropping Program			💧	💧	💧
Agricultural BMP Program			💧	💧	💧
Option for Alternative Agricultural Programs			💧	💧	💧
May Establish Cropped Acreage Program			💧	💧	💧
May Include Program for GFR Purchase & Retirement			💧	💧	💧
Recommendations to AWBA/for well locations			💧	💧	💧



Conservation Programs

A.R.S. § 45-563(A): “... The plans shall include a continuing mandatory conservation program for all persons withdrawing, distributing or receiving groundwater designed to achieve reductions in withdrawals of groundwater.”

- * Programs for Three Sectors:

- * Agricultural (Chapter 4)
 - * Base Program
 - * Historic Cropping Program
 - * Best Management Practices Program (BMP)

- * Municipal (Chapter 5)
 - * GPCD Program
 - * Non-Per Capita Program (NPCCP)

- * Industrial (Chapter 6)
 - * General Requirements
 - * Specific Subsector Programs

- * Conservation Programs include:

- * Regulatory requirements related to water use
- * Reporting requirements
- * Conservation targets
- * Flexibility provisions
- * Compliance provisions



Total GPCD Program

- * Uses a formula to set a GPCD target for each provider.
 - * Amount of water withdrawn, diverted or received by the provider for non-irrigation use is compared to GPCD target to determine compliance.
- * Limited to large designated providers
- * Program has been relatively static over time, with some adjustments to reduction strategy between Management Plans.
- * Statutory language is relatively vague
 - * *“Reasonable reductions in per capita use”*
 - * *“Additional conservation requirements for non-irrigation uses”*



GPCD Program Number of Providers

AMA	# of providers
Phoenix AMA	9
Pinal AMA	0
Prescott AMA	1
Santa Cruz AMA	1
Tucson AMA	5
Total	16



Municipal Non-Per Capita Program (NPCCP)

- * Tiered BMP point system.
- * Provider Profile required when entering program and when changing tiers.
 - * Large Designated Providers may elect to be regulated under the NPCCP, opting-in with each Management Plan.
- * Large Undesignated Providers must be regulated under NPCCP.
- * Current BMPs are detailed in Appendix 5C in each AMA's plan.



Municipal Non-Per Capita Program

- * All providers regulated under the NPCCP shall implement a public education program.
- * In addition to the public education program, provider must select water conservation measures from the approved list.
- * BMPs must be reasonably relevant to the provider's existing service area and water use characteristics.



Municipal Non-Per Capita Program

Number of Providers

	Tier 1	Tier 2	Tier 3	Total
Phoenix AMA	17	10	5	32
Pinal AMA	4	2	0	6
Prescott AMA	0	1	0	1
Santa Cruz AMA	2	1	0	3
Tucson AMA	14	5	0	19
Total	37	19	5	61



Non-Per Capita Program

* Best Management Practices Program

Provision	3MP & Adopted 4MPs	Proposed for Remaining 4MPs
Points target	Tier 1: 1 BMP/point Tier 2: 5 BMPs/points Tier 3: 10 BMPs/points	Tier 1: 2 point Tier 2: 8 points Tier 3: 15 points
Points values	Each practice is treated as equal	Certain practices may be worth multiple points (See Appendix 5C)

- * Opportunity to restructure points/tier system, edit BMPs, better assess effectiveness of individual BMPs



Lost & Unaccounted For Water

- * Large providers: Less than 10%
- * Small providers: Less than 15%
- * This is the main conservation requirement for small providers.

AMA	LP 3-Year L&U %
Prescott	7.99
Phoenix	7.49
Pinal	8.37
Tucson	7.80
Santa Cruz	11.89



Other Programs

- * Are there other programs we should consider modifying or new programs we should develop?
 - * Alternative Conservation Program
 - * Residential GPCD target
 - * Non-residential BMPs
 - * Institutional Provider Program
 - * For those delivering >90% of water to non-residential uses
 - * Residential GPCD target
 - * Non-residential BMPs
- * Are there other requirements that we should consider for all providers?



Overview of Historical Municipal Data



Reporting Requirements

- * 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
- * Report types of end use
- * Additional information related to conservation requirements or any other information the director deems necessary



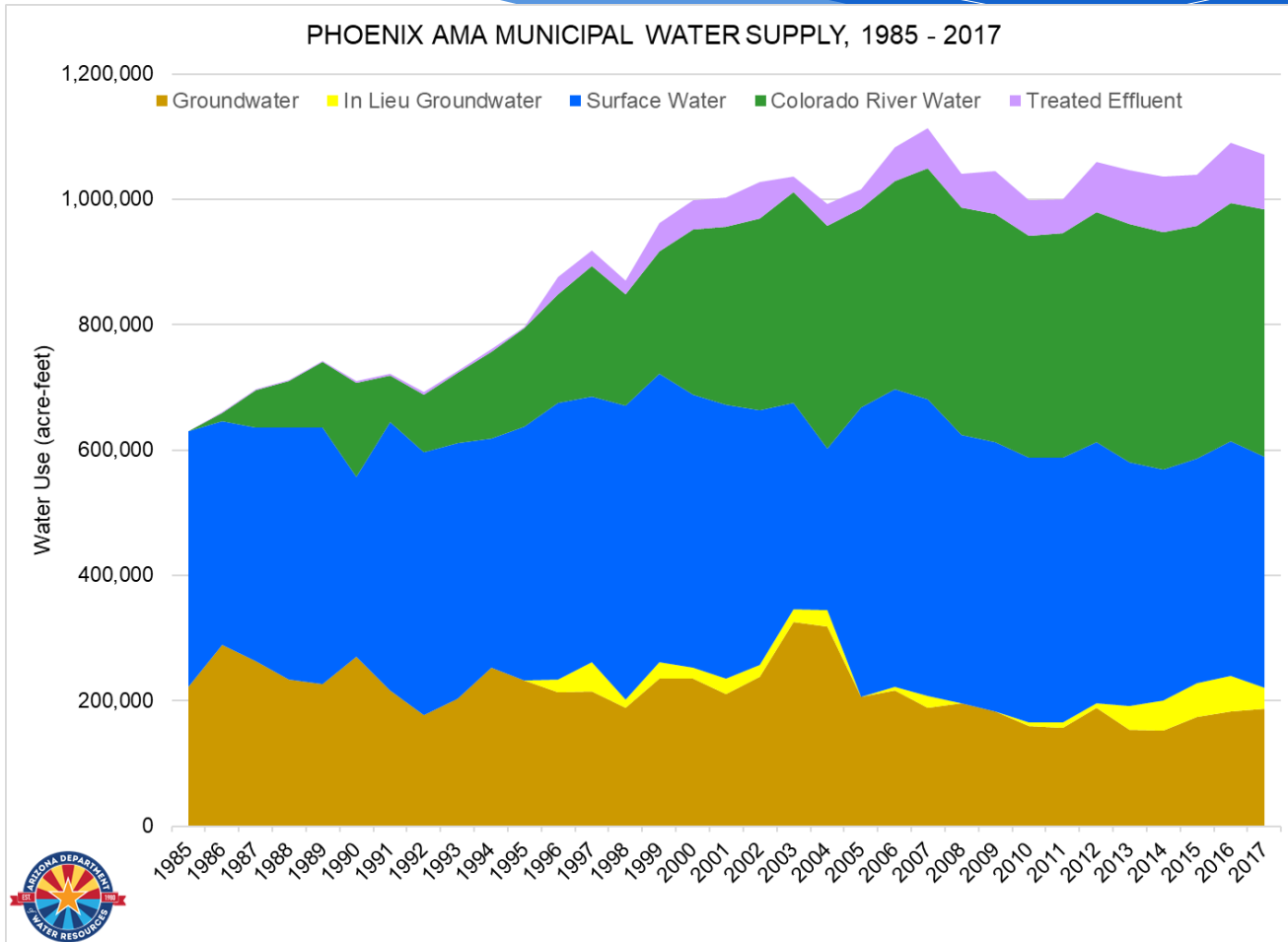
Conservation Progress Report

As a part of the 4MP, ADWR will periodically publish an analysis of each AMA's progress toward its goal.

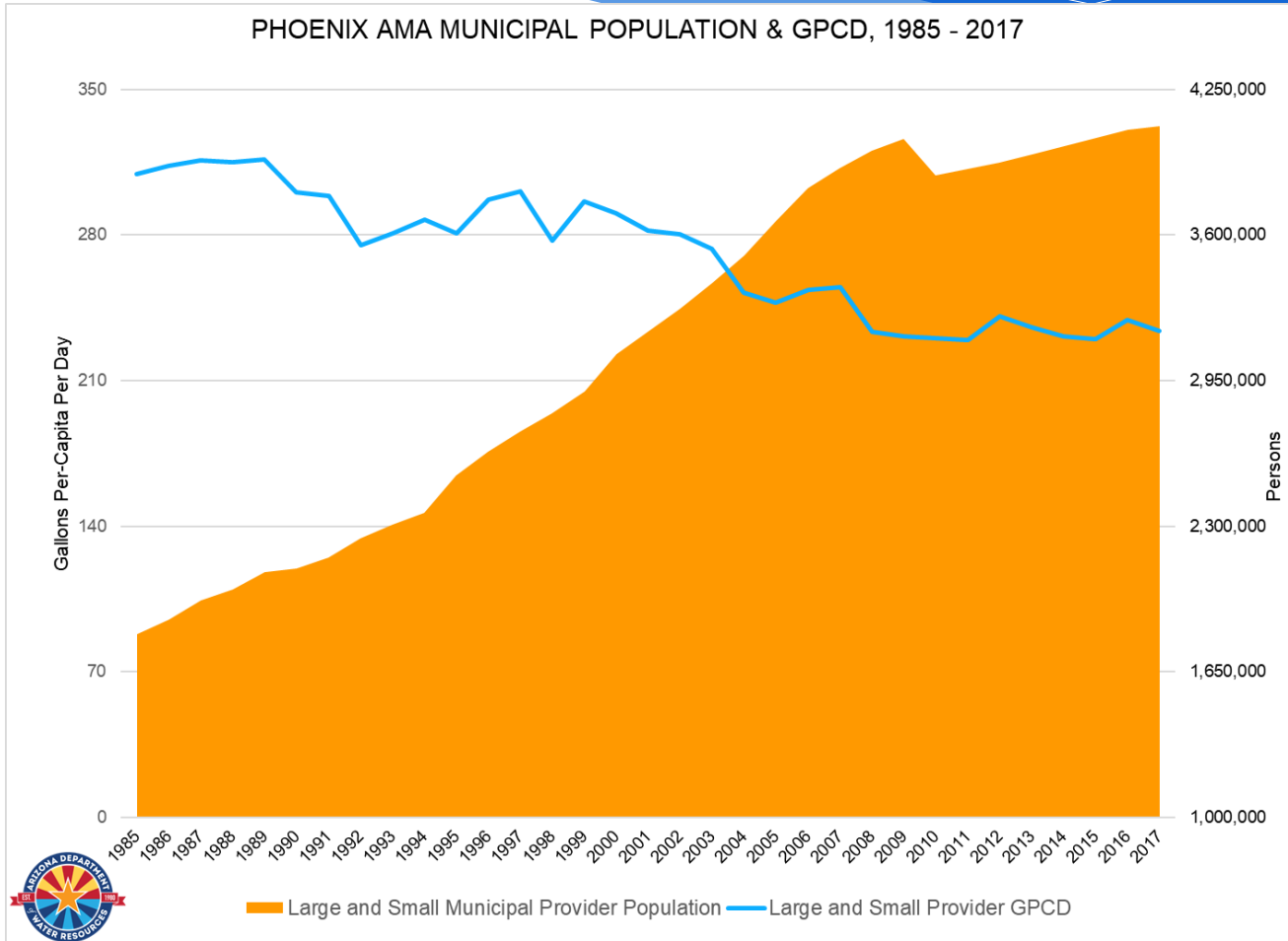
- * Expand scope of report required under A.R.S. § 45-563.01 to include analysis of:
 - * Effectiveness of Conservation Programs in all 3 sectors
 - * Progress toward the goal in each of the 5 AMAs
- * Transparency
 - * Communicating success or need for improvement
 - * Tracking and ensuring progress of each AMA toward its goal
 - * Sharing underlying data and methodology



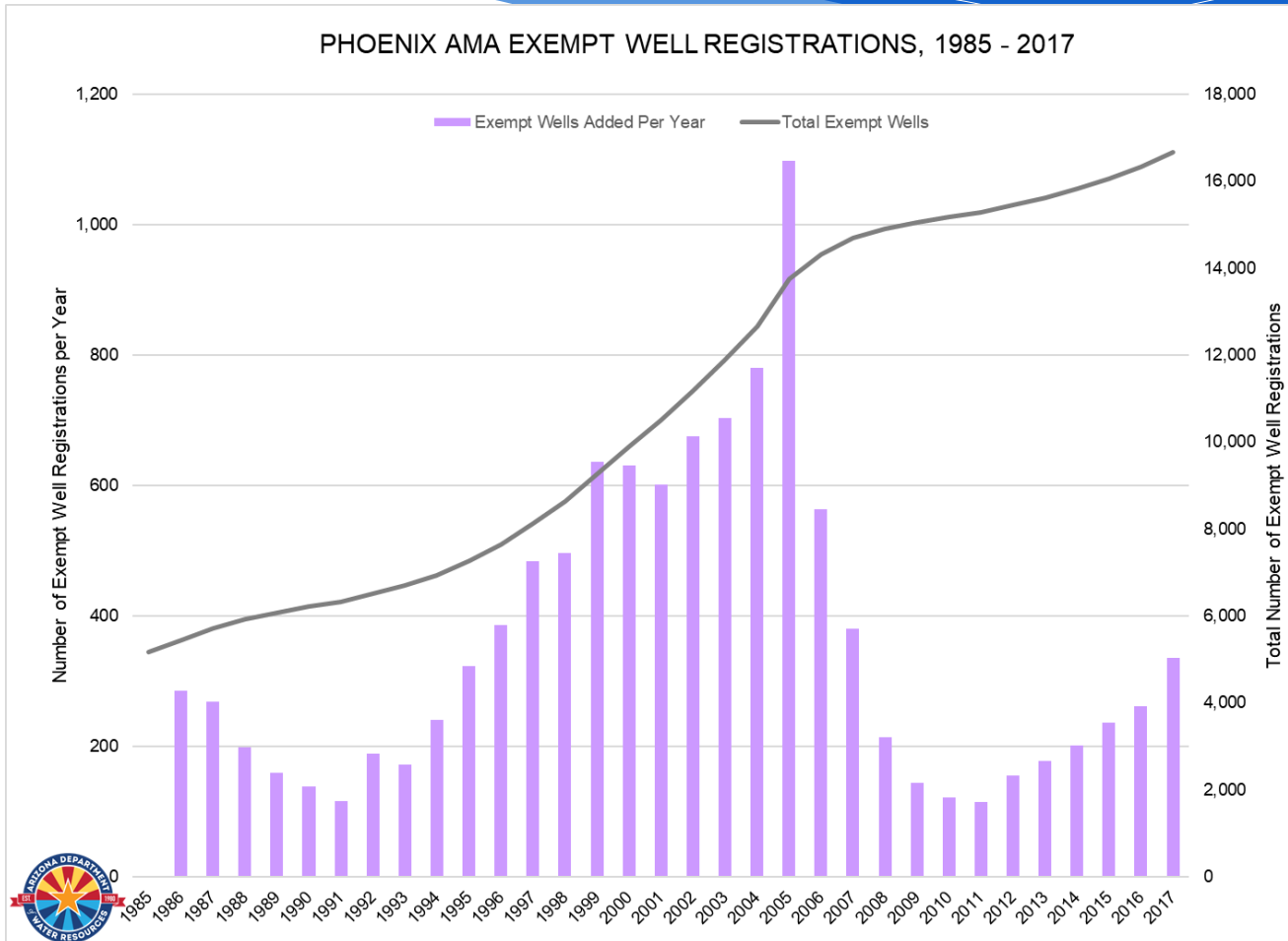
Historical Data



Historical Data



Historical Data



Discussion of Future Analyses



Management Plans Work Group

- * Work Group
 - * The MPWG is an ADWR-led stakeholder forum for the development of the Fifth Management Plans
 - * Goals:
 - * Assess existing conservation programs
 - * Update existing management strategies
 - * Develop new management strategies



Analysis of Conservation Programs

- * Possible ways to look at the data we have
 - * Quantitative analysis of NPCCP
 - * Residential GPCD vs. Total GPCD
- * Do we need additional data?
 - * Other data sources?
 - * Additional reporting requirements?



Future Meetings



Future Meetings

- * Frequency?
- * Next Dates?
- * Topics?
- * Subgroups
 - * Ag: 9/5, 1:00pm
 - * Industrial: 9/9, 1:00pm
 - * Safe-Yield Technical Group: 9/23, 1:00pm
- * Next MPWG meeting:
2pm on December 4, 2019



Questions?

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

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

