

5th Management Plans Work Group

May 4, 2020



Agenda

- I. Welcome
- II. Key Issues for 5th Management Plans
 - A. Statutory Framework
 - B. Conservation
- III. Subgroup Meetings Update and Next Steps
 - A. Agricultural Subgroup
 - B. Municipal Subgroup
 - C. Industrial Subgroup
 - i. Turf Breakout
 - D. Safe-yield Technical Subgroup
- IV. 5MP Timeline
- V. Closing Remarks

Key Issues for the Fifth Management Plans

Statutory Requirements



Management Goals (A.R.S. § 45-562)

Safe-yield:

“A groundwater management goal which attempts to achieve and thereafter maintain a long-term balance between the annual amount of groundwater withdrawn in an active management area and the annual amount of natural and artificial recharge in the active management area.”

(A.R.S. § 45-561(12))

Prescott, Phoenix, and Tucson AMAs:

Safe-yield by the year 2025

Pinal AMA:

To allow development of non-irrigation uses and to preserve existing agricultural economies in the AMA for as long as feasible, consistent with the necessity to preserve future water supplies for non-irrigation uses.

Santa Cruz AMA:

To maintain a safe-yield condition in the AMA and to prevent local water tables from experiencing long term declines

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

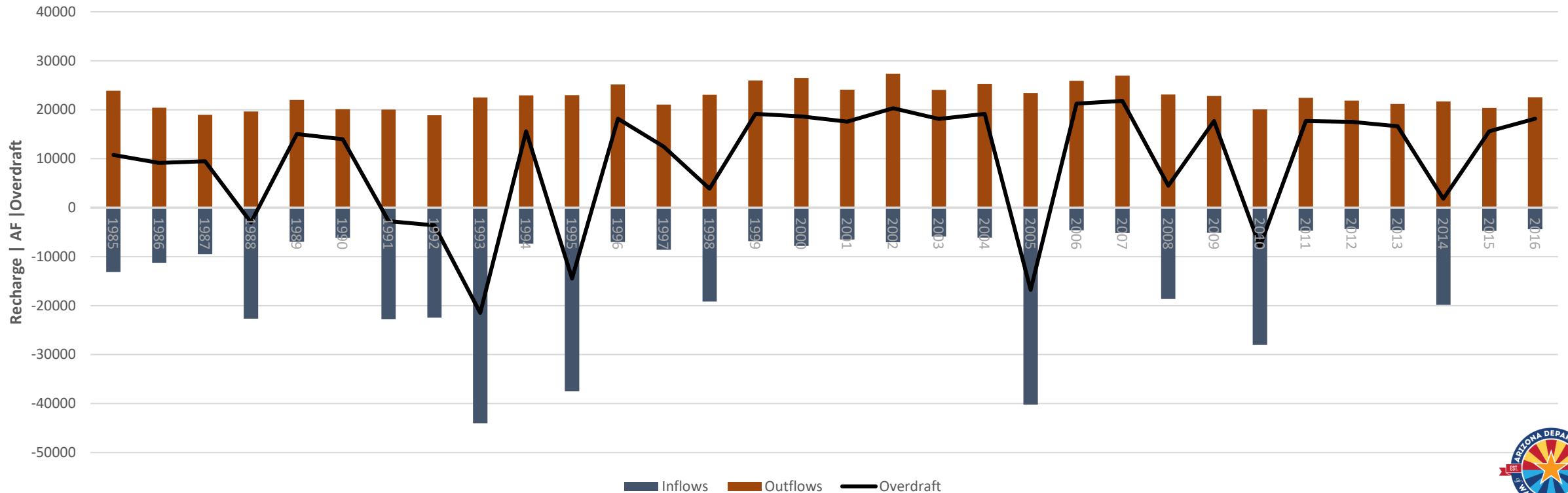


Key Issues

- * Continued Progress toward Management Goals
- * Definitions and Strategies
- * Timeline and Transition into Drier Future

Progress toward Management Goals

Prescott AMA
Annual Overdraft – Inflows & Outflows



Conservation in the Context of the 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.”

Water Management Strategies

“It was obvious that if we didn’t use the new supply to help achieve a balance, we’d be in an awful mess in forty or fifty years.”

-Wes Steiner

Supply Side

Meeting demand with new resources

- * Colorado River water delivered through the CAP
- * Effluent
- * Recharge/Recovery

Demand Side

Managing demand to postpone/avoid the need to develop additional resources or to bring use in line with available resources

- * “reductions in withdrawals of groundwater”

Demand Management in the Context of the Management Plans

- * Long-term reductions v. Short-term curtailment
 - * Looking for strategy around using water wisely, not for short-term restriction/reduction
- * Benefits
 - * Progress toward the goals/long-term supply resiliency
 - * Balancing supply/demand to allow for growth within resource availability
 - * Reducing demand → Long-term reduction in costs

Demand Management Measures

Conservation

Reducing total use

- “...reductions in withdrawals of groundwater.”

Efficiency

Minimizing waste

- Efficiency can coincide with conservation, but must be designed to reduce total use to also be conservation

Conservation Programs

- * Existing components
- * How might we consider using demand management as a principle for designing conservation programs going forward?
 - * Focus on long-term
 - * Focus on elimination of waste
 - * Focus on “reductions in withdrawals of groundwater” on the AMA scale
 - * Moving beyond simple “efficiency”

BMP Programs

Agricultural

A.R.S. § 45-568.02(G)

“The director shall include... a best management practices program... in lieu of complying with an irrigation water duty and a maximum annual groundwater allotment. The program shall be designed to achieve conservation that is at least equivalent to that required under [the Base Program].”

Municipal

A.R.S. § 45-568.01(D)

“The director shall design the non-per capita conservation program to achieve water use efficiency in the service areas of municipal providers regulated under the program equivalent to the water use efficiency assumed [under the GPCD Program]”

Management Goals

- * Demand Management measures and strategies can create further progress toward the goals.
- * All sectors contribute to overdraft and can contribute toward progress toward the goals.
- * 5MP Goal: Finding conservation and efficiency in all sectors that is both practical and makes incremental progress toward reducing withdrawals of groundwater

5MP Timeline

- * 5MP needs to contain flexibility and make progress to take us into the future
- * Statutes do not yet define what comes after the 5MP
 - * We anticipate there will be some continued water management structure, but the details of that and the timing are yet to be defined.
 - * The 5MP Conservation Requirements will remain in place until subsequent requirements become effective.

Subgroup Meetings Update & Next Steps

MANAGEMENT PLANS WORK GROUP

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.”

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

Municipal Subgroup

Update from Past Meetings:

- * Discussed each BMP under the Non-Per Capita Conservation Program (NPCCP)

Next Steps for Future Meetings:

- * Restructure and Clarify BMP Categories
- * Evaluate the tiers and points structure for the NPCCP
- * Revamp Conservation Efforts Report to streamline data reporting & sharing
- * Discuss GPCD and Alternative programs

Next Meeting:



6/4: BMP Categories & Points Structure

Agricultural Subgroup

Update from Past Meetings:

- * Compared the Base and BMP Conservation Programs
- * Discussed new concepts for 5MP Agricultural Conservation

Next Steps for Future Meetings:

- * Continue discussion of water use data and conservation in the Base and BMP Programs
- * Further discuss and develop 5MP Programs

Next Meetings:



5/18: Data



7/20: 5MP Conservation Programs

Industrial Subgroup

Update from Past Meetings:

- * Industrial Subgroup met once in September 2019
- * Recommended sub-sector level breakout groups

Next Steps for Future Meetings:

- * TBD – may meet or form additional subgroups as the need arises

Next Meetings:



TBD

Turf Breakout

Update from Past Meetings:

- * Detailed existing conservation programs
- * Discussed goals for 5MP Conservation Program
 - * Simplicity
 - * Data-driven

Next Meeting:



6/22: 5MP Conservation Program

Next Steps for Future Meetings:

- * Continue to discuss strategies for simplification of the turf program moving forward while continuing to reduce withdrawals of groundwater
- * Discuss how to include realistic over-seeding practices in golf course requirements
- * Evaluate conservation requirements for other turf-related facilities (parks, schools, HOAs, etc.)

Safe-Yield Technical Subgroup

Update from Past Meetings:

- * Discussed each component of the annual safe-yield calculation
- * Consensus on calculating Ag Incidental Recharge as a percent of total demand
- * Introduced some methods for the long-term analysis of management goals & communication concepts

Next Steps for Future Meetings:

- * Establish rates of Ag Incidental Recharge for each AMA
- * Continue discussion of long-term analyses
- * Consider additional communication strategies

Next Meeting:



7/7: Strategies for Long-Term Analysis

5MP Timeline



MANAGEMENT PLANS WORK GROUP

A.R.S. § 45-563 (A)

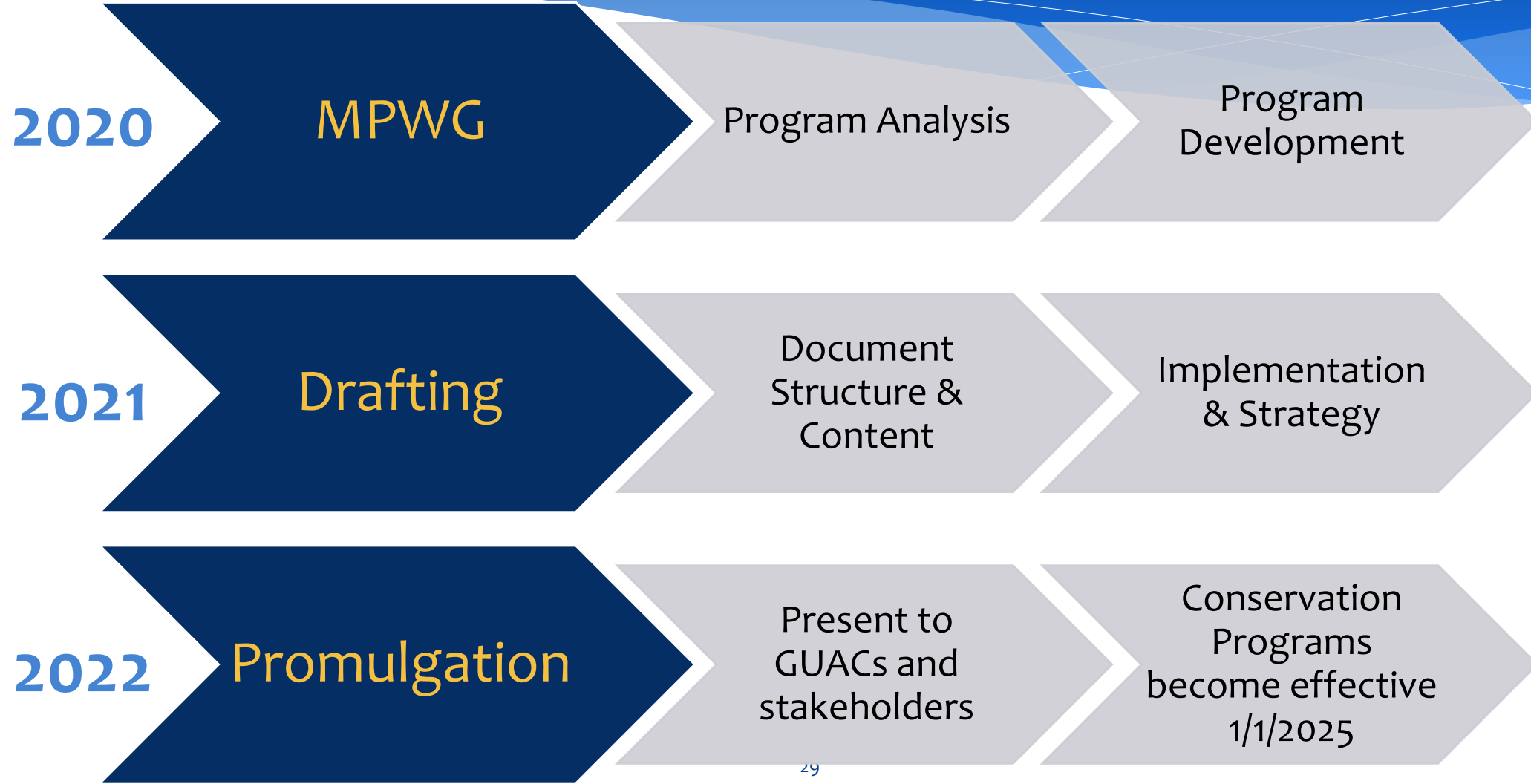
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ADWR-led stakeholder forum for the development of the 5th Management Plans

Goals:

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

Estimated 5MP Timeline



MPWG Subgroups

{ All meeting info is available at new.azwater.gov/5MP }

Work Group

MPWG

📅 8/11/2020

Subgroup

Ag

📅 5/18/2020

Muni

📅 6/4/2020

Industrial

📅 TBD

Safe-Yield
Technical

📅 7/7/2020

Breakout

Turf

📅 6/22/2020

Questions?

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

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

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