5th Management Plans Work Group
Safe-Yield Technical Subgroup Meeting

February 24, 2020
Agenda

I. Welcome

II. Detailed Discussion of Individual Safe-Yield Components

III. Closing Remarks
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
5MP Safe-Yield Technical Subgroup

Goals

* Consensus on methodology and definitions
  * Assessing each component
  * Identifying a general approach for assessing long-term status
  * Consistency across AMAs
* Clear communication of status of each AMA

Strategy

* Annual Calculation
  * Consensus on treatment of components
  * Consensus on annual calculation
* Long-Term Analysis
  * Approach(es) for “Long-Term” Analysis
  * Assessing “Progress toward goal”
* Best Practices for Communicating Status
Safe-Yield Data and Calculation
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goal which attempts to achieve and thereafter maintain a long-term balance between the annual amount of groundwater withdrawn in an active management area and the annual amount of natural and artificial recharge in the active management area.”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
Annual Calculation – Data Sources

**Inflows**
- Natural
  - Groundwater Inflow
  - Streambed Recharge
  - Mountain-front Recharge
- Artificial
  - Incidental Recharge
  - Agricultural
  - Municipal
  - Industrial
  - Canal Seepage
  - Cut to the Aquifer
  - CAGRD Replenishment

**Outflows**
- Natural
  - Groundwater Outflow
  - Riparian Demand
- Artificial
  - Sector Demands
    - Agricultural
    - Municipal
    - Industrial
    - Indian
  - Remediated Groundwater
  - Poor Quality Groundwater

Items highlighted in blue are outputs of ADWR’s regional groundwater models.
Items highlighted in gray are compiled from AMA Annual Reports.
AMA Data Page: https://new.azwater.gov/ama/ama-data

NEW
Safe-yield Dashboard
Safe-Yield Dataset (coming soon)

* Reported data is compiled and updated on an annual basis.
* Page also contains AMA Water Supply & Demand Dashboard and Dataset
Safe-Yield Components: Outflows
* Outflow
* Natural
* Output of ADWR’s regional groundwater models
* Outflow
* Natural
* Output of ADWR’s regional groundwater models
Sector Demands

* Outflow
* Artificial
* Compiled for Agricultural, Municipal, Industrial, & Indian sectors
  * Agricultural, Municipal, & Industrial demands are compiled from AMA Annual Reports
  * Indian demands are estimated
  * Paper groundwater pumping only
Remediating Groundwater

- Outflow
- Artificial
- Compiled from AMA Annual Reports

- Allowable groundwater pumping, may be legally required. Typically exempt from conservation requirements.
Poor Quality Groundwater

* Outflow
* Artificial
* Compiled from AMA Annual Reports

➢ Allowable groundwater pumping, may be exempt from certain conservation requirements.
Next Steps
Annual Calculation

**Inflows**
* Natural
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  * Streambed Recharge
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  * Incidental Recharge
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**Outflows**
* Natural
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  * Poor Quality Groundwater

**Work Group Progress**
* Natural
  * Natural recharge component data will continue to be obtained from ADWR regional groundwater models
* Artificial
  * Incidental Recharge
    * Consider “water budget approach” - no lagging
* Anything else?
“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)
Closing
MPWG Subgroups

Work Group

Subgroup

Breakout
Questions?

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

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