Additional opportunity to provide input and feedback on items discussed in the meeting
Questions are optional so you can choose what you’d like to provide input on
Responses will be posted anonymously on our 5MP Concepts Webpage
Please respond by 3/10/2021

Link to Google Form Questionnaire: https://forms.gle/JcMf8ke4BHSkhi2L8
I. Welcome
II. Recap of Previous Meetings
III. Status and Timeline of 4th and 5th Management Plans
IV. Proposed Program Updates
   i. Non-Golf Turf Facilities
   ii. Golf Turf Facilities
      • Presentation from Golf Stakeholders
   iii. Effluent Incentive
   iv. Allotment Additions
V. Closing
Recap from Previous Meetings
5MP Turf Breakout - Progress

Update from Past Meetings:
* Detailed existing conservation programs
* Discussed goals for 5MP Conservation Program
* Proposed allotment calculation methods for golf courses and non-golf turf facilities

Today:
* Continue discussion of program updates
  * Non-Golf Turf Facilities
  * Golf Turf Facilities
  * Effluent Adjustment
  * Allotment Additions

Next Steps for Future Meetings:
* finalize Conservation Programs
* Review and Discussion of Draft Regulatory Language

Next Meeting:
TBD
Status and Timeline of 4\textsuperscript{th} and 5\textsuperscript{th} Management Plans
Estimated 5MP Timeline

new.azwater.gov/5MP

2020
MPWG
Program Analysis
Program Development

2021
Drafting
Document Structure & Content
Implementation & Strategy

2022
Promulgation
Present to GUACs and stakeholders
Conservation Programs become effective 1/1/2025
## 5MP Turf Breakout Subgroup: Potential Work Plan/Timeline

<table>
<thead>
<tr>
<th>Topic (5MP Turf Subgroup)</th>
<th>Meetings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Golf Conservation Program</td>
<td>February</td>
</tr>
<tr>
<td>Non-Golf Turf Facility Conservation Program</td>
<td>February</td>
</tr>
<tr>
<td>Other Items, as needed</td>
<td>April (tentative)</td>
</tr>
<tr>
<td>Draft Regulatory Language Review</td>
<td>When available, 2nd Half of 2021</td>
</tr>
</tbody>
</table>
Drafting Logistics

* All 5 Fifth Management Plans will be drafted simultaneously
  * Structure will largely match across AMAs
  * Time for AMA Customization
* Subgroups will reconvene as needed to review draft regulatory language

➢ Goal: Publication of Initial Drafts in early 2022
Proposed Program Updates
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.”
Proposed Program Updates: Non-Golf Turf Facilities
* Maximum annual water allotment
* For turf-related facilities over 10 acres water-intensive landscaped area
* New facilities will be limited to maximum area of 90 acres
* Certain exemptions for cemeteries
* Conservation program includes allotment additions, effluent adjustments, and flexibility accounts

* Maximum water allotment calculation method:
  * 3 Application Rates multiplied by Acres in each category

<table>
<thead>
<tr>
<th>Category</th>
<th>Application Rate (AF/Acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turf Acres</td>
<td>4.45 - 4.9</td>
</tr>
<tr>
<td>Low Water Use Landscaped Area</td>
<td>1.5</td>
</tr>
<tr>
<td>Total Water Surface Area</td>
<td>5.5 - 6.2</td>
</tr>
</tbody>
</table>
Use Dependent Application Rates

4MP Allotment:

* 3 Application Rate Categories:
  * Turfed Acres
  * Water Surface Area
  * Low Water use

Previous Potential 5MP Allotment:

* Use-Dependent Application Rates
  * Ornamental
  * Athletic
* Application Rate categories for:
  * Low Water Use
  * Water Surface Area

Feedback: Idea presents new complexities and could be administratively difficult.
## Proposed Program Update: Non-Golf

<table>
<thead>
<tr>
<th>Category</th>
<th>Application Rate (AF/Acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Prescott</td>
</tr>
<tr>
<td>Turf</td>
<td>4.17</td>
</tr>
<tr>
<td>Low Water Use Landscaped Area</td>
<td>0.74</td>
</tr>
<tr>
<td>Total Water Surface Area</td>
<td>5.5</td>
</tr>
</tbody>
</table>
Proposed Program Updates:
Golf Turf Facilities
## Goals

**Increased conservation**  
("reductions in withdrawals of groundwater")

- Improved simplicity & transparency
- Improved data & realistic application rates
- Improved administration, communication, & enforcement
- **Equity**
  - Balanced – lighter impact on those who are already more efficient & not too severe on those who are less efficient
### Initial Proposed Method

*Course Categories:*
1. Below 5 Acres/Hole
2. Above 5 Acres/Hole

*Application Rate Categories*
1. Overseeded Acres
2. Non Overseeded Acres
3. Acres over 5 Acres/Hole
4. Water Surface Acres

*Limits for different course categories*

<table>
<thead>
<tr>
<th>Category</th>
<th>AMA</th>
<th>Under 5 Acres/Hole</th>
<th>Over 5 Acres/Hole</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rate</td>
<td>Limit</td>
<td>Rate</td>
</tr>
<tr>
<td><strong>Turf Category 1</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prescott</td>
<td>5.24 AF/Ac</td>
<td>3.6 Acres/Hole</td>
<td>5.24 AF/Ac</td>
</tr>
<tr>
<td>Phoenix</td>
<td>5.84 AF/Ac</td>
<td></td>
<td>5.84 AF/Ac</td>
</tr>
<tr>
<td>Pinal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tucson</td>
<td>3.62 AF/Ac</td>
<td>3.6 Acres/Hole</td>
<td>3.62 AF/Ac</td>
</tr>
<tr>
<td>Santa Cruz</td>
<td>4.22 AF/Ac</td>
<td>3.6 to 5 Acres/Hole</td>
<td>4.22 AF/Ac</td>
</tr>
<tr>
<td><strong>Turf Category 2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prescott</td>
<td>5.5 AF/Ac</td>
<td>If built after 1984, 0.14 Acres/Hole</td>
<td>5.5 AF/Ac</td>
</tr>
<tr>
<td>Phoenix</td>
<td>6.2 AF/Ac</td>
<td>If built after 1989, 0.14 Acres/Hole</td>
<td>6.2 AF/Ac</td>
</tr>
<tr>
<td>Pinal</td>
<td></td>
<td>If built after 1985, 0.14 Acres/Hole</td>
<td></td>
</tr>
<tr>
<td>Tucson</td>
<td>5.8 AF/Ac</td>
<td>If built after 1991, 0.14 Acres/Hole</td>
<td>5.8 AF/Ac</td>
</tr>
<tr>
<td>Santa Cruz</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Turf Category 1: Overseeded acres
Turf Category 2: Non-overseeded acres
Turf Category 3: Acres in excess of 5 Acres/Hole or 90 Acres/18 Holes

*This limit has been corrected from 5 Ac/hole to 5 AF/hole, to match the limit for "Additional Turf Acres" in the 3MP & 4MP*

[https://new.azwater.gov/5MP/plans-concepts](https://new.azwater.gov/5MP/plans-concepts)
### Initial Proposal

**Phoenix AMA**

<table>
<thead>
<tr>
<th>Turf Category</th>
<th>Potential 5MP Golf Course Categories</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>C1</td>
<td>C2</td>
</tr>
<tr>
<td>Definition (18-hole course)</td>
<td>&lt;5 acres/hole</td>
<td>5+ acres/hole</td>
</tr>
<tr>
<td>Turf 1</td>
<td>Up to 3.6 ac/hole</td>
<td>up to 2.8 ac/hole</td>
</tr>
<tr>
<td>Turf 2</td>
<td>3.6-5 ac/hole</td>
<td>2.8-5 ac/hole</td>
</tr>
<tr>
<td>Turf 3</td>
<td>None</td>
<td>Up to 5 AF/Hole</td>
</tr>
<tr>
<td>LWU</td>
<td>None</td>
<td>Total</td>
</tr>
</tbody>
</table>

**Low Water Use Acres:** defined as land that is watered by a permanent irrigation system and planted primarily from ADWR’s LWU plant list.

### Updated Proposal - Part 1

**Phoenix AMA**

<table>
<thead>
<tr>
<th>Turf Category</th>
<th>Potential 5MP Golf Course Categories</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td>Turf 2</td>
<td>3.6-5 ac/hole</td>
<td>2.8-5 ac/hole</td>
</tr>
<tr>
<td>Turf 3</td>
<td>None</td>
<td>Up to 5 AF/Hole</td>
</tr>
<tr>
<td>LWU</td>
<td>Up to 1Ac/Hole @0.74AF/Ace</td>
<td>Total</td>
</tr>
</tbody>
</table>

**Low Water Use Acres:** defined as land that is watered by a permanent irrigation system and planted primarily from ADWR’s LWU plant list.
# Effluent Adjustment - Part 2

<table>
<thead>
<tr>
<th>AMA</th>
<th>2MP Effluent Adjustment</th>
<th>3/4MP Effluent Adjustment</th>
<th>Proposed 5MP Effluent Adjustment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prescott</td>
<td>0.8-0.85</td>
<td>0.6</td>
<td>0.6</td>
</tr>
<tr>
<td>Phoenix</td>
<td>0.8-0.85</td>
<td>0.6</td>
<td>0.6</td>
</tr>
<tr>
<td>Pinal</td>
<td>0.9-0.95</td>
<td>0.7</td>
<td>0.7</td>
</tr>
<tr>
<td>Tucson</td>
<td>0.9-0.95</td>
<td>0.7</td>
<td>0.7</td>
</tr>
<tr>
<td>Santa Cruz</td>
<td>N/A</td>
<td>0.7</td>
<td>0.7</td>
</tr>
</tbody>
</table>
Allotment Additions- Part 3

* Revegetation
  * Recommend keeping with updated application rate of 0.74 AF/Acre

* Newly Turfed Area
  * Single year, 1 AF/ac and no more than 5 AF/hole (PrAMA: 0.8 AF/ac and no more than 4 AF/hole)
  * Recommend keeping as long as total turfed area does not increase

* Filling or Refilling Bodies of Water
  * Single year
  * Recommend keeping

* Addition for Leaching
  * Remains in effect as long as TDS remains high
  * Recommend keeping
Presentation by Golf Stakeholders

Katie Prendergast, Arizona Alliance for Golf
Rob Collins, Paradise Valley Country Club
Bri Kenny, Troon
Questions

- Updated Proposal Package
- Stakeholder Presentation
* Application for a conservation requirement that differs from that established by the Management Plan conservation program
* Can result in an adjustment to conservation requirement that lasts the length of the management plan
* Process:
  * Application within 90 days of notice of conservation requirement
  * Consideration of extraordinary circumstances which makes unreasonable to comply with conservation requirement
Stacking

* Fundamental concept in existing and prior conservation programs
  * “If a total water use conservation requirement is exceeded by a groundwater user, the amount of the violation of that requirement will be measured by the amount of groundwater used in excess of the regulatory requirement.” (Phoenix AMA Fourth Management Plan)

* Well-established in statute & case law

* Affirmed through unsuccessful legal challenges
Appendix 10A (page 10-12)

“ADWR’s regulatory program is, therefore, structured around the concept of “stacking” different types of water, by type, in a compliance hierarchy, with groundwater on top. If a total water use conservation requirement is exceeded by a groundwater user, the amount of the violation of that requirement will be measured by the amount of groundwater used in excess of the regulatory requirement. This strategy will ensure that if groundwater is being used, it is being used as wisely and efficiently as economically possible.”

Section 10.7.2.1 (page 10-6)

“ADWR determines the amount of groundwater in the excess [of an allotment] by a process known as ‘stacking.’ This process was approved by the court in Arizona Municipal Water Users Ass’n v. Arizona Dep’t of Water Resources, 181 Ariz. 136, 888 P.2d 1323 (App. 1994). Note, the Groundwater Code authorizes ADWR to count recovered effluent in determining municipal compliance with groundwater GPCD and the groundwater conservation requirements for municipal water distribution systems (See also Ariz. Water Co., v. Ariz. Dep’t of Water Resources, 208 Ariz. 147, 91 P.3d 990 (2004)). ADWR may, under its “stacking” method, consider use of the CAP water in determining GPCD compliance.

Under the stacking process, water from all sources used by a person during a year, with certain exceptions, is counted when comparing the person’s water use to the maximum annual water allotment or GPCD requirement. However, groundwater is counted last. The process of counting groundwater last is called stacking because the groundwater is added to, or stacked on top of, the non-groundwater sources. Because groundwater use is counted last, the amount of any water used by a person in excess of its allotment or GPCD requirement will be comprised, at least partially, of groundwater.”
Stacking Examples

Turf-Related Facility Conservation Allotment = 100 AF

- Groundwater 50 AF
- Colorado River Water 50 AF
- Groundwater 20 AF

Groundwater 100 AF
Groundwater 50 AF
Colorado River Water 110 AF
Colorado River Water 110 AF

No groundwater use in excess of allotment
20 AF in excess of allotment
Groundwater 40 AF
Effluent 50 AF
Colorado River Water 50 AF

(50 * 0.6 = 30 AF)
Closing Comments
Update from Past Meetings:
* Detailed existing conservation programs
* Discussed goals for 5MP Conservation Program
* Proposed allotment calculation methods for golf courses and non-golf turf facilities

Today:
* Continue discussion of program updates
  * Non-Golf Turf Facilities
  * Golf Turf Facilities
  * Effluent Adjustment
  * Allotment Additions

Next Steps for Future Meetings:
* Finalize Conservation Programs
* Review and Discussion of Draft Regulatory Language

Next Meeting:
TBD
MPWG Subgroups

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

managementplans@azwater.gov

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

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