



CENTRAL ARIZONA PROJECT
Board of Directors
March 5, 2020 - 10:00 AM

Central Arizona Project
23636 N. 7th Street
Phoenix, Arizona
Board Room

Revised materials for item 5ai and additional materials for item 5ci

FINAL AGENDA

Times shown are approximate. Some items may take more or less time than scheduled, or the President may grant requests to hear items in an order other than shown.

1. Pledge of Allegiance, Moment of Silence and Safety Minute - Graff (10:00)
2. Recognition of Employees Celebrating Service Anniversaries: Pam Saba, Patrick Dent and Rex Faires (20 Years); David Domico and Tom Davidson (30 Years) - Cooke (10:05)
3. Consideration of Action to Approve Items on the Consent Agenda** (10:20)
 - a. Minutes of the February 6, 2020 Regular Meeting - Megdal
 - b. Water Storage Agreements for Stone Applications LLC - Johnson/Adams
4. Consideration of Action to Approve Items Removed from the Consent Agenda
5. Reports of Committees and Possible Consideration of Committee Recommendations
 - a. Public Policy Committee - Cesare (10:30)
 - i. Possible Consideration of Action on State Issues that Could Impact CAP, Including but not Limited to HB2787, HB2880, and SB1113
 - b. Finance, Audit and Power Committee - Goddard (10:40)
 - i. Discussion and Consideration of Action to Approve Additional Spending Authority for Navajo Generating Station Decommissioning Costs - Dunlap
 - ii. Discussion and Consideration of Action to Approve Supplemental Guidance to the CAWCD Rate Setting Policy Regarding the Collection of Fixed OM&R Costs for System Conservation - Cullom
 - c. CAGR and Underground Storage Committee - Jacobs (11:00)
 - i. Report and Discussion on the Final CAGR 2019 Mid-Plan Review Document (*Replenishment: CAGR Management and Oversight*) - Grignano
6. Report on CAP Asset Management and Infrastructure Health (*Project Reliability: Effectively Manage, Operate and Maintain CAP Assets*) - Moody (11:15)
7. Report on Recovery Planning Activities, Agreements and Technical Studies (*Water Supply: Reliability of the CAP Water Supply*)[^] - Lohse (11:30)
8. Report on Colorado River Conditions (*Water Supply: Reliability of the CAP Water Supply*)[^] - Cullom (11:40)
 - a. Update on Intentionally Created Surplus (ICS) - Cullom
9. Report on Water Operations (*Project Reliability: Effectively Manage, Operate and Maintain CAP Assets*)[^] - Crandall (12:00)
10. Report on Legal Matters (*Leadership & Public Trust: Relationships-Customers*)[^] - Johnson (12:15)
11. Directors' Report on Current Events (12:20)
12. Future Agenda Items (12:40)

13. President's Report on Current Events - Atkins (12:45)
14. General Manager's Report on Current Events - Cooke (12:55)
15. Public Comment (1:05)
16. Consideration of Action to go into Executive Session of the Board for the following purposes:
*(The discussions and minutes of the executive session shall be kept confidential. The executive session of the Board is not open to the public.)****
 - a. Pursuant to A.R.S. §38-431.03.A.1 to discuss matters pertaining to the goals, performance and contract of the General Manager; and
 - b. Pursuant to A.R.S. §38-431.03.A.4, for discussion or consultation with the attorneys of the District in order to consider its position and instruct its attorneys regarding salinity control program funding negotiations, and to discuss and consult with its representatives concerning such negotiations; and
 - c. Pursuant to A.R.S. §38-431.03.A.3 to obtain legal advice from the District's attorneys on any matter listed on the agenda
17. Reconvene in Open Session
18. Consideration of Action Regarding Items Discussed in Executive Session
19. Adjourn

CAP Board members are elected by the voters in Maricopa, Pima and Pinal Counties. Visit cap-az.com/board to learn more about the Board. Those interested in meeting with a Board member may contact the member directly to schedule an appointment. Space will be made available at CAP Headquarters.

*** Items listed in the Consent Agenda may be acted on by the Board without discussion. Any item listed on the Consent Agenda may be removed from the Consent Agenda and acted on separately by the Board.*

**** The Executive Session is expected to last approximately one hour and will not be open to the public.*

^ Linkage to 2016 CAWCD Board of Directors Strategic Plan.

In accordance with the Americans with Disabilities Act (ADA), if you need reasonable accommodations due to a disability, please contact the CAP office at (623.869.2333) or TDD (623.869.2183) at least seventy-two (72) hours in advance of the meeting.



**CENTRAL ARIZONA WATER CONSERVATION DISTRICT
REGULAR MEETING OF THE BOARD OF DIRECTORS
February 6, 2020**

The regular meeting of the Central Arizona Project ("CAWCD" or "CAP") Board of Directors was called to order by President Lisa Atkins on February 6, 2020, at 10:13 a.m. The meeting was held at Central Arizona Project Headquarters, located at 23636 North Seventh Street, Phoenix, Arizona, in the Board Room.

Board Members present were: President Lisa A. Atkins, Maricopa County; Vice President Terry Goddard, Maricopa County; Secretary Sharon B. Megdal, Pima County; Alexandra Arboleda, Maricopa County; Jennifer Brown, Maricopa County; Karen Cesare, Pima County; Benjamin W. Graff, Maricopa County; Jim Hartdegen, Pinal County; Jim Holway, Maricopa County; Pat Jacobs, Pima County (*via telephone*); Mark Lewis, Maricopa County; Jennifer Martin, Maricopa County; April Pinger, Maricopa County; Mark Taylor, Pima County.

Board Members not present were: Heather A. Macre, Maricopa County.

Staff members present were Ted Cooke, General Manager; Robert Moody, Assistant General Manager; Jay Johnson, General Counsel; Bridget Schwartz-Manock, Director, Public Affairs; Patrick Dent, Director, Water Policy; Christopher Hall, Director, Finance & Administration; Darrin Francom, Director, Operations, Power and Engineering; Laura Grignano, Manager, CAGR; Chuck Cullom, Manager, Colorado River Programs; Jeff Gray, Manager, Legislative Affairs; Greg Adams, Senior Attorney; Mohammed Mahmoud, Senior Policy Analyst; Orestes Morfin, Planning Analyst; Megan Casey, Public Affairs Management Analyst; and Jennifer Miller, Board Support Specialist.

1. PLEDGE OF ALLEGIANCE, MOMENT OF SILENCE AND SAFETY MINUTE - CESARE

Board Member Cesare led the Board Members and public in reciting the Pledge of Allegiance and observing a moment of silence, and gave a safety minute on avoiding phone scams.

2. GUEST SPEAKER - AMWUA 50TH ANNIVERSARY - GILBERT COUNCILMEMBER EDDIE COOK, AMWUA BOARD PRESIDENT

Gilbert Councilmember Eddie Cook, President of the Board of the Arizona Municipal Water Users Association (AMWUA), gave a presentation on the 50th Anniversary of AMWUA. Warren Tenney, AMWUA Executive Director, shared information about AMWUA.

3. CONSIDERATION OF ACTION TO APPROVE ITEMS ON THE CONSENT AGENDA**

On a motion (Board Member Pinger) and a second (Board Member Brown), approved the minutes of the January 9, 2020 meeting; and approved the award of a professional services contract for the System Use Agreement Feasibility Study to HDR Inc., and authorized the General Manager, or his designee, to execute an agreement up to \$1,055,899. Motion passed.

Voting yes: Lisa A. Atkins, Sharon B. Megdal, Alexandra Arboleda, Jennifer Brown, Karen Cesare, Benjamin W. Graff, Jim Hartdegen, Jim Holway, Pat Jacobs, Mark Lewis, Jennifer Martin, April Pinger, Mark Taylor

Not voting: Terry Goddard

4. **CONSIDERATION OF ACTION TO APPROVE ITEMS REMOVED FROM THE CONSENT AGENDA**

None.

5. **REPORTS OF COMMITTEES AND POSSIBLE CONSIDERATION OF COMMITTEE RECOMMENDATIONS**

5.a. **PUBLIC POLICY COMMITTEE - CESARE**

Board Member Cesare gave an update on the February 6 Public Policy Committee meeting. She said the Committee heard a report on federal issues, including two pieces of legislation, H.R.4891 and S.2718, and two federal rule changes related to Waters of the United States (WOTUS) and the National Environmental Policy Act (NEPA). Board Member Cesare also shared a report on state issues, including the state budget and pending legislation. She reported that the Committee recommended the Board take a position of support on several bills: HB2101, HB2617/SB1145, HB2618/SB1494, HB2677, HCM2004 and HR2003. She noted she would make a separate motion for HCM2004 (Yuma desalting plant; continued operation) due to a dissenting vote on that bill in Committee.

Board Member Holway asked if the Board would receive a briefing on other water legislation that has been introduced. Board Member Cesare replied that other water legislation was presented at the Committee meeting and included in the Committee packet. She noted that she asked staff to create a one-page list and a weekly email summary of bills that are related to CAP. Board Member Holway shared his thought that CAP may be drawing too tight a line on what is considered relevant to CAP and commented he is an advocate for a broader view.

5.a.i **POSSIBLE CONSIDERATION OF ACTION ON STATE ISSUES THAT COULD IMPACT CAP, INCLUDING BUT NOT LIMITED TO HB2101, HB2617/SB1145, HB2618/SB1494, HB2677, HCM2004, AND HR2003 - GRAY**

On a motion (Board Member Cesare) and a second (Board Member Brown), adopted a position on the following pending state legislation of interest to CAP: HB2101 (SUPPORT), HB2617/SB1145 (SUPPORT), HB2618/SB1494 (SUPPORT), HB2677 (SUPPORT), HR2003 (SUPPORT). Motion passed.

Voting yes: Lisa A. Atkins, Sharon B. Megdal, Alexandra Arboleda, Jennifer Brown, Karen Cesare, Benjamin W. Graff, Jim Hartdegen, Jim Holway, Pat Jacobs, Mark Lewis, Jennifer Martin, April Pinger, Mark Taylor

Not voting: Terry Goddard

Board Member Cesare made a motion (seconded by Board Member Graff) to adopt a position of support on HCM2004. She noted the Public Policy Committee vote was 3 to 1 to support the bill. Secretary Megdal asked if there is potential to modify some of the wording of

the bill, commenting that the bill does not seem to recognize that the Yuma Desalting Plant (YDP) has outdated technology and neglected infrastructure and that the Bureau of Reclamation (BOR) has said it will take \$30 million to get the plant operational. She further commented that YDP is not the best option for augmentation and the bill doesn't acknowledge the implications to the Cienega de Santa Clara. Board Member Arboleda commented that she shares Secretary Megdal's concerns and that she is in favor of desalination technology but is concerned about YDP's outdated technology. She also expressed concerns about the current bill language. Board Member Taylor agreed with Secretary Megdal and Board Member Arboleda and commented that no one should be telling BOR what specific projects to pursue without looking at cost effectiveness and environmental impacts. Board Member Jacobs said he would like to hear what the Arizona Department of Water Resources' (ADWR) and the Governor's committee's thoughts are before supporting YDP. Board Member Holway said he will vote against supporting HCM2004 and commented that he shares the hesitancy that other members expressed. He noted there are issues around YDP and the whole region that are of significance to Arizona and to CAP. He commented that the bill is a symbolic measure but doesn't feel CAP should lend support.

President Atkins asked staff about the discussion in the House Committee in light of the questions raised by the Board. Jeff Gray, Legislative Affairs Manager, replied that there was very little testimony at the hearing. President Atkins commented that a further conversation might be worthwhile and it may be best to table the motion, noting that members nodded affirmatively. In response to a question from President Atkins, Mr. Gray said that CAP was signed in at the House hearing to support the bill, following the procedure for interim direction. He said CAP could change that position to neutral, but noted that the position of support would be on the record of the hearing.

Board Member Cesare (with agreement from seconder Board Member Graff) withdrew her original motion on HCM2004. After suggestions from President Atkins, Secretary Megdal, Board Member Graff and Mr. Gray, Board Member Cesare made a new motion.

On a motion (Board Member Cesare) and a second (Board Member Graff), adopted a position on the following pending state legislation of interest to CAP: HCM2004 (MONITOR) and instructed staff to change CAP's position to "neutral" at the Legislature. Motion passed.

Voting yes: Lisa A. Atkins, Sharon B. Megdal, Alexandra Arboleda, Jennifer Brown, Karen Cesare, Benjamin W. Graff, Jim Hartdegen, Jim Holway, Pat Jacobs, Mark Lewis, Jennifer Martin, April Pinger, Mark Taylor

Not voting: Terry Goddard

5.b. FINANCE, AUDIT AND POWER COMMITTEE - GODDARD

Board Member Taylor gave an update on the January 23 Finance, Audit and Power (FAP) Committee meeting. He reported the Committee received presentations on internal and external audit activity and approved the 2020-2021 Internal Audit Plan. He also reported the Committee heard an update on Navajo Generating Station (NGS) costs and an overview of the Voluntary Supplemental Shortage Stabilization Program. Board Member Taylor shared agenda items

planned for the February meeting.

5.c. CAGRD AND UNDERGROUND STORAGE COMMITTEE - MEGDAL

Secretary Megdal reported that the CAGRD and Underground Storage Committee did not meet in January. She shared agenda items planned for the February and March meetings.

6. REPORT ON JANUARY 21, 2020 ARIZONA WATER BANKING AUTHORITY SPECIAL MEETING - ARBOLEDA

Board Member Arboleda gave an update on the January 21 special meeting of the Arizona Water Banking Authority (AWBA). She reported that the AWBA discussed and approved support of proposed legislation to allow the direct transfer of 4-cent Water Storage Tax credits accrued by the AWBA to municipal and industrial (M&I) subcontractors to perform their own recovery during Colorado River shortage.

7. DISCUSSION ON ESTABLISHING A BOARD POLICY ON THE COLLECTION OF FIXED OM&R COSTS FOR SYSTEM CONSERVATION - CULLOM

Chuck Cullom, Colorado River Programs Manager, provided an overview of the January 23 stakeholder roundtable that staff conducted regarding the collection of a fixed operation, maintenance and replacement (OM&R) equivalency charge on system conservation projects. He reviewed how water is delivered for those projects, and key elements to consider in system conservation. He noted that, because CAP is obligated to collect sufficient funds to cover fixed OM&R costs, there needs to be a determination of who should pay those costs or an equivalency fee, for system conservation projects. He outlined three potential approaches: the system conservation contractor pays, the entity funding the project pays, or that all CAP users contribute, noting that all three approaches have been utilized in the past. Mr. Cullom said staff recommends a policy that would run through 2026 in alignment with the Drought Contingency Plan (DCP) and offered additional considerations. Mr. Cullom reported that the stakeholders, customers, contractors and subcontractors that attended the roundtable supported the approach that all CAP users contribute and voluntarily accept additional rate increases to facilitate additional system conservation. He noted that staff will make a recommendation to the FAP Committee in February.

Mr. Cullom answered clarifying questions from Board Member Lewis and provided additional information on which stakeholders have participated in the discussions to date. Board Member Lewis commented that he supports the policy being reviewed sooner than 2026. Vice President Goddard commented that he would also like to renew the commitment to review policies regularly and to include tribal representatives in the discussions.

Ted Cooke, General Manager, reviewed that rates are calculated based on deliveries and that system conservation is not included in deliveries, so a policy would decide who will pay an equivalency fee for the fixed OM&R costs. He noted that if the Board chooses to collect the costs from the entity doing the conservation, no policy would be needed for an equivalency fee. In response to a question from Board Member Taylor, Greg Adams, Senior Attorney, explained that system conservation is non-delivered water that CAP would forego its right to re-market and the fixed OM&R cost for that water needs to be accounted for either in rates or with a fixed OM&R equivalency fee.

In response to a question from Board Member Holway, Mr. Cullom explained that the intent is to have system conservation projects identified before the October water orders are placed, which would allow CAP to share the cost impacts of those projects with customers. He also clarified that this does not apply to fixed OM&R costs for intentionally created surplus (ICS), and that the Board will decide whether to forego its rights for each system conservation project. Board Member Holway commented that he thinks a policy on how to decide whether to forego the right to re-market is a more significant issue than how to deal with the fixed OM&R costs.

8. REPORT ON COLORADO RIVER CONDITIONS - MAHMOUD

Mohammed Mahmoud, Senior Water Policy Analyst, gave an update on the status of the reservoirs within the Colorado River system and reported on snow accumulation forecasts.

8.a. UPDATE ON SNOWPACK AUGMENTATION RESEARCH AND VERIFICATION - MAHMOUD

Dr. Mahmoud provided information on snowpack augmentation research and verification. He presented on the science and application of winter snow augmentation, also known as cloud seeding; the efficacy of the snowpack augmentation programs; the potential of extra-area effects and the environmental impacts from the seeding material silver iodide.

Secretary Megdal asked if more recent studies have been conducted that those presented, and Dr. Mahmoud replied that he is not aware of more recent studies available to the public. Vice President Goddard commented that the impact of the toxicity of cloud seeding on the whole ecosystem should be considered, and that he is skeptical that the efforts are producing a viable increase in the snowpack. Dr. Mahmoud clarified information included in his presentation for Board Member Martin. Board Member Martin agreed with Vice President Goddard's statement and commented that snowpack increases are marginal at best and that she questions the investment in cloud seeding programs and how the impact correlates to the potential negative impacts. Board Member Brown commented that the concerns raised are valid, but she thinks there is a responsibility to explore any type of new water sources.

8.b. REVIEW OF COLORADO RIVER MODELING - MORFIN

Mr. Cullom introduced Orestes Morfin, Planning Analyst. Mr. Morfin gave a presentation on the three primary BOR modeling tools that CAP uses to identify the amount of Colorado River water that may be available to CAP in the near, mid and long term. He reviewed the three tools: the 24-Month Model, the Mid-Term Operations Model, and the Colorado River Simulation System, and the outputs and uses for each.

Mr. Morfin and Mr. Cullom provided clarifying information on the tools in response to questions from Board Member Lewis. In response to a question from Board Member Taylor, Mr. Morfin explained how the tools are standard throughout the Colorado River Basin, but each agency can choose their own inputs and parameters. Mr. Morfin provided information on how volumes of the River are measured, the accuracy of those measurements and how historical hydrology trends are incorporated in to the longer term models in response to questions from Board Member Pinger. Board Member Holway asked if the models sufficiently provide the tools needed for future water management challenges and decisions. Mr. Cullom reported that there is an ongoing process with the Basin states to explore how the tools can be improved.

9. REPORT ON LEGAL MATTERS - JOHNSON

None.

10. DIRECTORS' REPORT ON CURRENT EVENTS

Vice President Goddard, Secretary Megdal and Board Members Arboleda, Brown, Cesare, Goddard, Graff, Holway, Lewis, Martin, Megdal, Pinger and Taylor shared updates on recent CAP activities.

11. FUTURE AGENDA ITEMS

Board Member Holway requested a comprehensive look to understand issues in Yuma area to better equip the Board for future discussions on YDP. Board Member Taylor echoed Board Member Holway's request. Board Member Pinger requested an update on the ASU/NASA study. Board Member Lewis requested an update on desalination. Board Member Martin requested the Public Policy Committee consider monitoring HB2675. Board Member Jacobs requested a report on ICS use and flows over the last ten years and how different projects affect ICS. He also requested a presentation by ADWR on their perspective on the future on the Colorado River.

12. PRESIDENT'S REPORT ON CURRENT EVENTS - ATKINS

President Atkins provided a strategic planning update, noting the next retreat is scheduled for April 30 to discuss the vision for CAP. She reported that the consultant has engaged CAP employees for input on the mission and values for the organization, and that there will be three public forums for stakeholders to provide input into the strategic planning process on March 3 and 4. President Atkins also reviewed the schedule of upcoming Board and Committee meetings.

13. GENERAL MANAGER'S REPORT ON CURRENT EVENTS - COOKE

Mr. Cooke gave a report on items that will be on the March consent agenda, including a construction contract for a potable water well at Sandario Pumping Plant, a construction contract for exciter replacement at Bouse Hills Pumping Plant, water storage agreements for Stone Applications LLC, and a contract for aerial imagery and mapping in 2020. He also reported that CAP has been awarded a Certificate of Achievement for Excellence in Financial Reporting for the eighth consecutive year. He gave an update on water quality standards for System Use Agreement activities and an overview of the January 23 roundtable meeting. Mr. Cooke also noted the recent Board tour of the AZ Solar Project 1 that provides 30MW of energy under a 20-year power purchase agreement with the facility's owners.

14. PUBLIC COMMENT

None.

15. CONSIDERATION OF ACTION TO GO INTO EXECUTIVE SESSION OF THE BOARD FOR THE FOLLOWING PURPOSES: PURSUANT TO A.R.S. §38-431.03.A.1 TO DISCUSS MATTERS PERTAINING TO THE GOALS, PERFORMANCE AND CONTRACT OF THE GENERAL MANAGER; AND PURSUANT TO A.R.S. §38-431.03.A.4. AND A.7, FOR DISCUSSION OR CONSULTATION WITH THE ATTORNEYS OF THE DISTRICT IN ORDER TO CONSIDER ITS POSITION AND INSTRUCT ITS ATTORNEYS REGARDING WATER

ACQUISITION NEGOTIATIONS, AND TO DISCUSS AND CONSULT WITH ITS REPRESENTATIVES CONCERNING SUCH NEGOTIATIONS; AND PURSUANT TO A.R.S. §38-431.03.A.3 TO OBTAIN LEGAL ADVICE FROM THE DISTRICT'S ATTORNEYS ON ANY MATTER LISTED ON THE AGENDA

On a motion (Board Member Cesare) and a second (Board Member Taylor), convened in executive session at 1:20 p.m. for the purposes listed on the agenda. Motion passed.

Voting yes: *Lisa A. Atkins, Terry Goddard, Sharon B. Megdal, Alexandra Arboleda, Jennifer Brown, Karen Cesare, Benjamin W. Graff, Jim Hartdegen, Jim Holway, Pat Jacobs, Mark Lewis, Jennifer Martin, April Pinger, Mark Taylor*

16. RECONVENE IN OPEN SESSION

The Board reconvened in open session at 3:15 p.m.

17. CONSIDERATION OF ACTION REGARDING ITEMS DISCUSSED IN EXECUTIVE SESSION

None.

18. ADJOURN

There being no further business to come before the Board, the meeting adjourned at 3:15 p.m.

Sharon B. Megdal
Board Secretary

ACTION BRIEF

BOARD OF DIRECTORS



Agenda Number 3.b

CONTACT: Jay Johnson Greg Adams
623-869-2374 623-869-2124
jjohnson@cap-az.com gadams@cap-az.com

MEETING DATE: Thursday, March 5, 2020

AGENDA ITEM: Water Storage Agreements for Stone Applications LLC - Johnson/Adams

RECOMMENDATION: Staff recommends that the Board approve the Agreements for Water Storage at the Agua Fria Recharge Project and the Superstition Mountains Recharge Projects between CAWCD and Stone Applications, LLC.

FISCAL IMPLICATIONS: No

Impact on Budget:

None

Additional spending authority requested: None

Impact on Reserves:

None

Impact on Rates:

None

LINKAGE TO STRATEGIC PLAN, POLICY, STATUTE OR GUIDING PRINCIPLE:

CAWCD Board of Directors 2016 Strategic Plan

- Water Supply: Reliability of the CAP Water Supply

PREVIOUS BOARD ACTION/ACTIVITY:

None.

ISSUE SUMMARY/DESCRIPTION:

Stone Applications wishes to enter into an agreement with Central Arizona Water Conservation District to store water. Attached are the Agreements for Storage of Water at the Agua Fria Recharge Project and the Superstition Mountains Recharge Projects. The water storage agreements include CAWCD's standard requirements pertaining to scheduling storage capacity, water measurement and accounting, billing and payment. The water storage rate charged to Stone Applications, LLC for recharge on any particular year is established in CAWCD's Water Rate Schedule. The term of the agreements is 10 years.

SUGGESTED MOTION:

I move that the Board approve the Agreements for Water Storage at the Agua Fria Recharge Project and the Superstition Mountains Recharge Project between CAWCD and Stone Applications, LLC.

ATTACHMENTS:

1. WSA - CAWCD - Stone Applications at SMRP Final Execution Copy
2. WSA - CAWCD - Stone Applications at AFRP Final - execution copy

**AGREEMENT FOR STORAGE OF WATER
AT THE
SUPERSTITION MOUNTAINS RECHARGE PROJECT**

1. PARTIES:

This Agreement for Storage of Water at the Superstition Mountains Recharge Project (“Agreement”) is made and entered into the _____ day of _____, 2020, by and between the CENTRAL ARIZONA WATER CONSERVATION DISTRICT, hereinafter referred to as "CAWCD", and STONE APPLICATIONS, LLC hereinafter referred to as “Stone Applications”.

2. RECITALS:

2.1 CAWCD has constructed and is responsible for operating the Superstition Mountains Recharge Project (the “SMRP”), an underground storage facility that is located in the East Salt River Valley Sub-basin of the Stone Applications Active Management Area in eastern Maricopa County.

2.2 ADWR has issued CAWCD a Constructed Underground Storage Facility Permit (Permit No. 73-207702.0003) for the SMRP. The permit authorizes the underground storage of a maximum of 25,000 acre-feet per annum for Phase 1, and 56,500 acre-feet per annum for Phase 2, at the SMRP. The SMRP is a State Demonstration Recharge Project pursuant to A.R.S. § 45-891.01, et seq.

2.3 Stone Applications has or will enter into an agreement with the San Carlos Apache Tribe (“Tribe”) and the United States to lease CAP water from the Tribe (“San Carlos Apache Tribe CAP Water Lease”).

2.3 Stone Applications desires to store a portion of the CAP water leased from the San Carlos Apache Tribe at the SMRP and CAWCD agrees to make available unused storage capacity at the SMRP for such storage, in accordance with the provisions of this Agreement.

NOW THEREFORE, in consideration of the foregoing, the payments to be paid by Stone Applications, and the covenants and agreements contained in this Agreement, and other good and valuable consideration, CAWCD and Stone Applications agree as follows:

3. DEFINITIONS:

As used in this Agreement, the following terms, when capitalized, have the following meanings:

- 3.1 ADWR: The Arizona Department of Water Resources
- 3.2 CENTRAL ARIZONA PROJECT (CAP): The water delivery works of the CAP including, but not limited to, the CAP canal, its turnout structures and associated measuring devices.
- 3.3 SUPERSTITION MOUNTAINS RECHARGE PROJECT or SMRP: The constructed underground storage facility constructed and operated by CAWCD pursuant to the Permit, which is located in portions of Sections SE ¼ of Sec. 23, SW ¼ of Sec. 24, NW ¼ of Sec. 25, NE ¼ of Sec. 26, T2S, R8E, GSRB&M, Maricopa County, Arizona.
- 3.4 STONE APPLICATIONS WATER: CAP water scheduled by or for Stone Applications under the terms of the San Carlos Apache Tribe CAP Water Lease or under the terms of a future lease or contract for CAP water into which Stone Applications may enter.
- 3.5 TURNOUT STRUCTURE: The point at which Stone Applications Water is diverted from the CAP canal for delivery into the SMRP.
- 3.6 PARTY/PARTIES: Either one or both of the parties to this Agreement.
- 3.7 PERMIT: The Constructed Underground Storage Facility Permit issued by the ADWR for the SMRP, Permit No. 71-207702.0003.

4. SCOPE:

This Agreement is limited to the diversion of water at the SMRP Turnout Structure, and the storage of such water at the SMRP by CAWCD for the benefit of Stone Applications. CAWCD shall deliver Stone Applications Water, which is scheduled by or for Stone Applications for storage at the SMRP in accordance with this Agreement, and CAWCD shall store such water underground at the SMRP for the benefit of Stone Applications.

5. TERM OF AGREEMENT:

This Agreement shall become effective when executed by both Parties and shall remain in effect for ten (10) years unless the Parties agree in writing to extend the term or unless it is sooner terminated or canceled in accordance with the terms of this Agreement.

6. CONDITIONS RELATING TO STORAGE:

- 6.1 All storage of Stone Applications Water at the SMRP shall be consistent with Arizona law.
- 6.2 Stone Applications shall obtain a water storage permit from ADWR authorizing it to store Stone Applications Water at the Constructed SMRP.

6.3 CAWCD's storage of Stone Applications Water at the SMRP shall, at all times, comply with the Permits. CAWCD shall be responsible for filing annual reports as required by the Permit. CAWCD shall promptly notify Stone Applications of any changes or modifications to the Permit that would affect Stone Applications's rights under this Agreement. If the Permit is canceled or expires for any reason, Stone Applications may terminate this Agreement.

7. PROCEDURE FOR SCHEDULING STORAGE CAPACITY:

7.1 As soon as practicable after the date of execution of this Agreement, Stone Applications shall submit to CAWCD a proposed schedule indicating the amount of SMRP storage capacity it desires to use during the year in which this Agreement is executed. Thereafter, on or before October 1 of each year during the term of this Agreement, Stone Applications shall submit to CAWCD a proposed schedule indicating the amount of SMRP storage capacity Stone Applications desires to use during the following year.

7.2 As soon as practicable after receipt of Stone Applications's proposed schedule following the execution of this Agreement, CAWCD shall return to Stone Applications the schedule, as adjusted by and acceptable to CAWCD, indicating the amount of SMRP storage capacity that is available to Stone Applications for the year in which this Agreement is executed. Thereafter, on or before November 15 of each year during the term of this Agreement, CAWCD shall return to Stone Applications the schedule, as adjusted by and acceptable to CAWCD, indicating the amount of SMRP storage capacity that is available to Stone Applications for the following year, if any.

8. WATER STORAGE RATE:

Each year under the term of this Agreement, CAWCD shall establish a per acre-foot recharge rate ("Annual Recharge Rate") for the use of SMRP storage capacity for the following year, in accordance with CAWCD's adopted Recharge Rate Policy. Stone Applications shall be obligated to pay CAWCD this Annual Recharge Rate for each acre-foot of storage capacity used by Stone Applications during the year. Such payment shall be in accordance with the provisions of Section 13 below.

9. OPERATING AGENT:

9.1 CAWCD shall be responsible for operating the SMRP.

- 9.2 CAWCD shall retain sole responsibility and authority for decisions relating to the SMRP operating and maintenance practices, including maintenance scheduling and the selection of periods when maintenance will be done.
- 9.3 Whenever practicable, CAWCD shall inform Stone Applications ninety (90) days in advance of any matter which may substantially affect the SMRP or the rights of Stone Applications.

10. DESTRUCTION/RECONSTRUCTION OF THE SMRP:

In the event of destruction of all or part of the SMRP, CAWCD may repair or reconstruct the SMRP, but CAWCD shall not be obligated to do so.

11. WATER MEASUREMENT AND ACCOUNTING:

- 11.1 CAWCD shall base its accounting for water delivered to the SMRP on actual measurements, methods required by the Permit and/or generally accepted accounting and engineering practices.
- 11.2 CAWCD shall install and maintain a flow measurement system to measure the amount of water diverted from the CAP into the SMRP. CAWCD shall test and maintain the accuracy of this system within plus or minus 5 percent of actual flows.
- 11.3 CAWCD shall determine evaporation losses representative of the conditions at or near the SMRP using the method indicated in the Permits or using actual measurements, when available. Any other losses in the SMRP shall be calculated using generally accepted engineering practices.
- 11.4 All losses that occur at the SMRP, other than by evaporation, will be calculated using generally accepted engineering practices and water-level readings from the gauges in the basins.
- 11.5 CAWCD shall prepare a monthly water accounting report of water stored at the SMRP for Stone Applications. The report shall include the daily amount of water stored and the losses calculated as described in this Section.
- 11.6 CAWCD shall provide the ADWR with water accounting reports for the SMRP as required by the Permit.
- 11.7 The water accounting reports prepared pursuant to this Section shall be sent to Stone Applications monthly and shall be retained by CAWCD for at least three years.
- 11.8 CAWCD shall provide Stone Applications copies of SMRP annual reports submitted to ADWR.

12. WATER QUALITY:

Stone Applications shall indemnify and hold harmless CAWCD against all losses to third parties resulting from water quality degradation or harm to property caused by Stone Applications's use of the SMRP, due to the commingling of Stone Applications Water with the groundwater. Further, Stone Applications waives any claim on its own behalf against CAWCD for water quality degradation or harm to property arising from such commingling, unless such claim is intended to enforce the indemnification provision of this Section; provided, however, that Stone Applications shall indemnify and hold harmless CAWCD only to the extent that indemnification is not provided to CAWCD by the State of Arizona pursuant to A.R.S. Section 45-898.01; and provided, further, however, that Stone Applications's indemnification shall only extend to the percentage of degradation attributable to the water stored on behalf of Stone Applications at the SMRP under the terms of this Agreement. Stone Applications retains the right to claims over against any other entity, including CAWCD, storing water in the SMRP in the amount proportionate to such amount stored by those other entities. In no event shall CAWCD assume liability for water quality degradation resulting from the storage of water in the SMRP, solely due to its performance of obligations as the operating agent under this Agreement.

13. BILLING AND PAYMENTS:

13.1 On or before the 15th day of each month, CAWCD will bill Stone Applications for each acre-foot of storage capacity used by Stone Applications during the previous month. The amount billed to Stone Applications shall be equal to the Annual Recharge Rate multiplied by the number of acre-feet of Stone Applications Water delivered to the SMRP as measured at the SMRP Turnout Structure. Stone Applications shall pay CAWCD within thirty (30) days of receipt of such bill. Payment is not contingent upon and is not related to Stone Applications's accrual of long-term storage credits from water stored at the SMRP.

13.2 If payment due under this Agreement remains unpaid more than sixty (60) days after its due date, CAWCD may terminate this Agreement effective upon written notice to Stone Applications. In the event CAWCD terminates this Agreement, Stone Applications shall remain obligated to pay any outstanding balance.

14. AUTHORIZATIONS AND APPROVALS:

Stone Applications shall be responsible for obtaining, at its own expense, any permits, authorizations and approvals required for the underground storage and recovery of water in the SMRP or for Stone Applications's performance under this Agreement. Stone Applications shall keep CAWCD informed of its applications for such permits and authorizations. CAWCD will share information with Stone Applications to assist Stone Applications in its permit application. Stone Applications shall also be responsible for filing any annual reports or other documents necessary to maintain its right to store water at the SMRP.

15. LIABILITY:

15.1 Each Party shall assume liability for its own negligence and shall indemnify the other against any damages the non-negligent Party incurs as a result of the negligent Party's action or inaction.

15.2 CAWCD shall assume no liability to Stone Applications for claims of damage resulting from CAWCD's decision to curtail or stop water flows to the SMRP site during storm or emergency conditions.

15.3 CAWCD shall assume no liability to Stone Applications for quantities of recoverable or unrecoverable water stored underground or removed from underground storage; nor to replace water lost, unintentionally misdirected or otherwise failing to reach the underlying aquifer. CAWCD, Stone Applications and any other entities storing water at the SMRP shall share in any deficiency resulting from such lost, misdirected or otherwise unstored water in proportion to the amount of the SMRP capacity it used at the time the deficiency accrued.

15.4 Liability, as described in Section 12 related to water stored in the SMRP by Stone Applications prior to termination of this Agreement, shall remain with Stone Applications after termination of this Agreement. This Section 15.4 shall survive expiration or termination of this Agreement, and remain in full force and effect.

15.5 In the event any third party institutes an action against CAWCD, Stone Applications or other entities storing water at the SMRP for claims arising from the activities undertaken pursuant to this Agreement, the parties named in the action shall meet to determine the procurement of legal counsel and the steps to take to defend against the action.

16. INSURANCE

- 16.1 During the term of this Agreement, unless otherwise agreed in writing by CAWCD, Stone Applications shall procure and maintain in force or cause to be procured and maintained in force the following types of insurance:
 - 16.1.1 Commercial General Liability Insurance naming CAWCD as an additional insured, including bodily injury, personal injury, property damage, wrongful death and contractual liability with a minimum limit of \$1,000,000 per occurrence.
 - 16.1.2 Business Automobile Liability Insurance with a minimum limit of \$1,000,000.
 - 16.1.3 Worker's Compensation required by Arizona State law, and Employer's Liability Insurance with limits of \$1,000,000 per accident, \$1,000,000 per employee per disease, and \$1,000,000 aggregate for disease.
 - 16.1.4 Commercial Umbrella – combined single limit of \$4,000,000.
- 16.2 Any insurance carried by CAWCD shall be excess and not contributory insurance to any insurance afforded hereunder. Stone Applications shall submit satisfactory proof of insurance to CAWCD prior to use of the SMRP. Such proof of insurance shall be in the form of a certificate stating the coverage provided and that such insurance shall not be canceled until after thirty (30) days prior written notice thereof shall have been given to CAWCD.
- 16.3 With written approval of CAWCD, Stone Applications may self-insure or combine the coverages required by this Agreement with coverages outside the scope of that required by this Agreement.
- 16.4 If Stone Applications fails to acquire, provide or continue the insurance coverages required CAWCD may terminate this Agreement immediately upon written notice to Stone Applications.

17. DEFAULT:

- 17.1 Stone Applications and CAWCD shall pay all monies and carry out all other performances, duties and obligations agreed to be paid and/or performed by them pursuant to this Agreement. A failure by Stone Applications or CAWCD to adhere to the covenants and obligations to be kept and performed by it shall be an act of default under this Agreement.

17.2 In the event of a default by Stone Applications or CAWCD, then, within thirty (30) days following notice of such default either Party may cure the default either by advancing the necessary funds and/or rendering the necessary performance. Such notice shall specify the existence and nature of such default. If such default is not remedied within the time specified, the non-defaulting Party may terminate this Agreement upon 24 hours written notice.

18. UNCONTROLLABLE FORCES:

Neither Party to this Agreement shall be considered in default in the performance of any of its obligations under this Agreement (other than obligations of Stone Applications to pay costs and expenses due under Sections 8.1 and 13 for Stone Applications Water stored at SMRP) when a failure of performance is due to Uncontrollable Forces. The term "uncontrollable forces"; shall mean any cause beyond the control of the Party unable to perform such obligation, including, but not limited to, failure of or threat of failure of facilities, flood, earthquake, storm, fire, lightning, and other natural catastrophes, epidemic, war, riot, civil disturbance or disobedience, strike, labor dispute, labor or material shortage, sabotage, government priorities and restraint by court order or public authority, and action or non-action by, or failure to obtain the necessary authorizations or approvals from any governmental agency or authority not a Party to this Agreement, which by exercise of due diligence, it shall be unable to overcome.

19. RESOLUTION OF DISPUTES:

A Party having a dispute under this Agreement that cannot be resolved by the Parties, may submit the dispute to arbitration. Arbitration shall be subject to the following provisions:

19.1.1 Arbitration shall be binding only upon the consent of the Parties.

19.1.2 A Party wishing to submit a dispute to arbitration shall provide thirty (30) days' written notice to the other Party of its intent to pursue arbitration and shall name one arbitrator at that time. Within fifteen (15) days of receiving this notice, the other Party to the dispute shall name one arbitrator and give written notice to the other Party of its selection. The two selected arbitrators shall, within five (5) days of selection of the second arbitrator, jointly select a third arbitrator.

- 19.1.3 Within thirty (30) days from the selection of the third arbitrator, the arbitrators shall hold a hearing. Within thirty (30) days from the conclusion of the hearing, the arbitrators shall render a decision on the dispute.
- 19.1.4 Arbitration shall be subject to the Arizona Arbitration Act, Arizona Revised Statutes, Title 12, Chapter 9, Article 1. In the event of a conflict between this Agreement and the Act, the provisions of this Agreement shall prevail.
- 19.1.5 A Party that is dissatisfied with the results of non-binding arbitration may pursue any other legal or equitable remedy not expressly provided for in this Section 19 and available to resolve the dispute.

20. ACTION PENDING RESOLUTION OF DISPUTES:

Pending the resolution of a dispute pursuant to Section 19, each Party shall proceed, to the extent legally permissible, in a manner consistent with this Agreement, and shall make payments required in accordance with the applicable provisions of this Agreement. Any amount paid by a Party pursuant to this Section 20 during the course of such dispute shall be subject to refund and adjustment upon a final resolution of any dispute involving an amount due.

21. GOVERNING LAW:

The laws of the State of Arizona shall govern this Agreement.

22. BINDING OBLIGATIONS:

All of the obligations set forth in this Agreement shall bind CAWCD and its successors and assigns. This Agreement shall not be assigned by Stone Applications or accrue to Stone Applications's successor, nor shall the SMRP capacity use rights hereunder of Stone Applications be used by another party. CAWCD retains the right to sell, lease, assign or otherwise convey its ownership of the SMRP to a third party. In such event, CAWCD may cancel this Agreement upon written notice to Stone Applications.

23. NOTICES:

23.1 Notice, demand or request provided for in this Agreement shall be in writing and shall be deemed properly served, given or made if delivered in person or sent by registered or certified mail, postage prepaid, to the persons specified below:

Central Arizona Water Conservation District

c/o General Manager
P.O. Box 43020
Phoenix, AZ 85080-3020

STONE APPLICATIONS, LLC

c/o Rhett A. Billingsley
Fennemore Craig
2394 E. Camelback Road, Suite 600
Phoenix, AZ 85016

23.2 A Party may, at any time, by notice to the other Party, designate different or additional persons or different addresses for the giving of notices.

24. THIRD PARTY BENEFICIARIES:

This Agreement shall not be construed to create rights in, or to grant remedies to, any third party as a beneficiary of this Agreement or of any duty, obligation or undertaking established herein.

25. WAIVER:

The waiver by either Party of a breach of any term, covenant or condition in this Agreement shall not be deemed a waiver of any other term, covenant or condition or any subsequent breach of the same or any other term, covenant or condition of this Agreement.

26. HEADINGS:

Title and paragraph headings are for reference only and are not part of this Agreement.

27. ENTIRE AGREEMENT:

The terms, covenants and conditions of this Agreement constitute the entire Agreement between the Parties relative to the leasing of SMRP storage capacity, and no understandings or agreements not herein expressly set forth shall be binding upon them. This Agreement may not be modified or amended in any manner unless in writing and signed by the Parties.

(Signatures on Following Page)

IN WITNESS WHEREOF, this Agreement is executed by the Parties hereto.

CENTRAL ARIZONA WATER CONSERVATION DISTRICT

By: _____
Lisa Atkins, President

Attest: _____
Secretary

STONE APPLICATIONS, LLC

By: _____
Jay Kramer, Authorized Signatory

**AGREEMENT FOR STORAGE OF WATER
AT THE
AGUA FRIA RECHARGE PROJECT**

1. PARTIES:

This Agreement for Storage of Water at the Agua Fria Recharge Project (“Agreement”) is made and entered into the _____ day of _____, 2020, by and between the CENTRAL ARIZONA WATER CONSERVATION DISTRICT, hereinafter referred to as “CAWCD”, and STONE APPLICATIONS, LLC, hereinafter referred to as “Stone Applications”.

2. RECITALS:

2.1 CAWCD is responsible for constructing and operating the Agua Fria Recharge Project (the “AFRP”), an underground storage facility that is located in the Phoenix Active Management Area, within the floodplain of the Agua Fria River. The AFRP is unique because it consists of two components: (a) an in-channel component, known and regulated as the managed underground storage facility pursuant to ADWR permit no. 71-569775.0008, where CAP water is released from the Agua Fria Siphon Blowoff Structure into the channel of the Agua Fria River for underground storage and/or conveyance as in-channel surface water flows approximately four miles downstream to the constructed underground storage facility; and (b) a constructed component, known and regulated as the constructed underground storage facility pursuant to ADWR permit No. 71-569776.0009, consisting of an in-channel diversion dam and headworks structure, which divert water from the channel into a conveyance canal for delivery to approximately 115 acres of spreading basins. The AFRP is more specifically located in portions of Sections 31 and 32, Township 5N, Range 1E, and Section 6, Township 4N, Range 1E, GSRB&M, Maricopa County, Arizona.

2.2 ADWR has issued CAWCD a Constructed Underground Storage Facility Permit (Permit No. 71-569776.0009) and a Managed Underground Storage Permit for the AFRP (Permit No. 71-569775.0008). The Permits together authorize the underground storage of a combined maximum of 30,000 acre-feet of water per year at the AFRP. The AFRP is a State Demonstration Recharge Project pursuant to A.R.S. § 45-891.01, et seq.

- 2.3 Stone Applications has or will enter into an agreement with the San Carlos Apache Tribe (“Tribe”) and the United States to lease CAP water from the Tribe (“San Carlos Apache Tribe CAP Water Lease”).
- 2.4 Stone Applications desires to store a portion of the CAP water leased from the San Carlos Apache Tribe at the AFRP and CAWCD agrees to make available unused storage capacity at the AFRP for such storage, in accordance with the provisions of this Agreement.

NOW THEREFORE, in consideration of the foregoing, the payments to be paid by Stone Applications, and the covenants and agreements contained in this Agreement, and other good and valuable consideration, CAWCD and Stone Applications agree as follows:

3. DEFINITIONS:

As used in this Agreement, the following terms, when capitalized, have the following meanings:

- 3.1 ADWR: The Arizona Department of Water Resources.
- 3.2 AGUA FRIA RECHARGE PROJECT or AFRP: The combined constructed underground storage facility and managed underground storage facility, constructed and operated by CAWCD pursuant to the Permits, which is located in portions of Sections 31 and 32, Township 5N, Range 1E, and Section 6, Township 4N, Range 1E, GSRB&M, Maricopa County, Arizona.
- 3.3 AGUA FRIA SIPHON BLOWOFF STRUCTURE: The point at which Stone Applications Water is diverted from the CAP canal for delivery into the AFRP.
- 3.4 CENTRAL ARIZONA PROJECT (CAP): The water delivery works of the CAP including, but not limited to, the CAP canal, its turnout structures and associated measuring devices.
- 3.5 STONE APPLICATIONS WATER: CAP water scheduled by or for Stone Applications under the terms of the San Carlos Apache Tribe CAP Water Lease or under the terms of a future lease or contract for CAP water into which Stone Applications may enter.
- 3.6 PARTY/PARTIES: Either one or both of the parties to this Agreement.
- 3.7 PERMITS: The Constructed Underground Storage Facility Permit issued by the ADWR for the AFRP, permit no. 71-569775.0008, and the Managed Underground Storage Facility Permit issued by the ADWR for the AFRP, permit no. 71-569776.0009.

4. SCOPE OF SERVICES:

This Agreement is limited to the diversion of water at the Agua Fria Siphon Blowoff Structure into the AFRP and the storage of such water at the AFRP by CAWCD for the benefit of Stone Applications. CAWCD shall deliver Stone Applications Water, which is scheduled by or for Stone Applications to the Agua Fria Siphon Blowoff Structure and CAWCD shall store such water underground at the AFRP for the benefit of Stone Applications.

5. TERM OF AGREEMENT:

This Agreement shall become effective when executed by both Parties and shall remain in effect for ten (10) years unless the Parties agree in writing to extend the term or unless it is sooner terminated or canceled in accordance with the terms of this Agreement.

6. CONDITIONS RELATING TO STORAGE:

6.1 All storage of Stone Applications Water at the AFRP shall be consistent with Arizona water law.

6.2 Stone Applications shall obtain a water storage permit from ADWR authorizing it to store Stone Applications Water at the AFRP.

6.3 CAWCD's storage of Stone Applications Water at the AFRP shall, at all times, comply with the Permits. CAWCD shall be responsible for filing annual reports as required by the Permits. CAWCD shall promptly notify Stone Applications of any changes or modifications to the Permits that would affect Stone Applications' rights under this Agreement. If one or both of the Permits are canceled or expire for any reason, Stone Applications may terminate this Agreement.

7. PROCEDURE FOR SCHEDULING STORAGE CAPACITY

7.1 As soon as practicable after the date of execution of this Agreement, Stone Applications shall submit to CAWCD a proposed schedule indicating the amount of AFRP storage capacity it desires to use during the year in which this Agreement is executed. Thereafter, on or before October 1 of each year during the term of this Agreement, Stone Applications shall submit to CAWCD a proposed schedule indicating the amount of AFRP storage capacity Stone Applications desires to use during the following year.

7.2 As soon as practicable after receipt of Stone Applications' proposed schedule following the execution of this Agreement, CAWCD shall return to Stone Applications the schedule, as adjusted by and acceptable to

CAWCD, indicating the amount of AFRP storage capacity that is available to Stone Applications for the year in which this Agreement is executed. Thereafter, on or before November 15 of each year during the term of this Agreement, CAWCD shall return to Stone Applications the schedule, as adjusted by and acceptable to CAWCD, indicating the amount of AFRP storage capacity that is available to Stone Applications for the following year, if any.

8. WATER STORAGE RATE

8.1 Each year under the term of this Agreement, CAWCD shall establish a per acre-foot recharge rate (“Annual Recharge Rate”) for use of AFRP storage capacity for the following year, in accordance with CAWCD’s adopted Recharge Rate Policy. Stone Applications shall be obligated to pay CAWCD this annual Recharge Rate for each acre-foot of storage capacity used by Stone Applications during the year. Such payment shall be in accordance with the provisions of Section 13 below.

9. OPERATING AGENT:

9.1 CAWCD shall be responsible for operating the AFRP.

9.2 CAWCD shall retain sole responsibility and authority for decisions relating to the AFRP operating and maintenance practices, including maintenance scheduling and the selection of periods when maintenance will be done.

9.3 Whenever practicable, CAWCD shall inform Stone Applications ninety (90) days in advance of any matter which may substantially affect the AFRP or the rights of Stone Applications.

10. DESTRUCTION/RECONSTRUCTION OF THE AFRP:

In the event of destruction of all or part of the AFRP, CAWCD may repair or reconstruct the AFRP, but CAWCD shall not be obligated to do so.

11. WATER MEASUREMENT AND ACCOUNTING:

11.1 CAWCD shall base its accounting for water delivered to the AFRP on actual measurements, methods required by the Permit and/or generally accepted accounting and engineering practices.

11.2 CAWCD shall install and maintain a flow measurement system in the Agua Fria Siphon Blowoff Structure to measure the amount of water diverted from the CAP into the AFRP. CAWCD shall test and maintain the accuracy of this system within a plus or minus 5 percent of actual flows.

11.3 CAWCD shall determine evaporation losses representative of the conditions at or near the AFRP using the method indicated in the Permits

- or using actual measurements, when available. Any other losses in the AFRP shall be calculated using generally accepted engineering practices.
- 11.4 All losses that occur at the AFRP, other than by evaporation, will be calculated using generally accepted engineering practices and water-level readings from the gauges in the basins.
 - 11.5 CAWCD shall prepare a monthly water accounting report of water stored at the AFRP for Stone Applications. The report shall include the daily amount of water stored and the losses calculated as described in this Section.
 - 11.6 CAWCD shall provide the ADWR with water accounting reports for the AFRP as required by the Permits.
 - 11.7 The water accounting reports prepared pursuant to this Section shall be sent to Stone Applications monthly and shall be retained by CAWCD for at least three years.
 - 11.8 CAWCD shall provide Stone Applications copies of the AFRP annual report submitted to ADWR.

12. WATER QUALITY:

Stone Applications shall indemnify and hold harmless CAWCD against all losses to third parties resulting from water quality degradation or harm to property caused by Stone Applications's use of the AFRP, due to the commingling of Stone Applications Water with the groundwater or water flowing above or below the surface of the Agua Fria riverbed. Further, Stone Applications waives any claim on its own behalf against CAWCD for water quality degradation or harm to property arising from such commingling, unless such claim is intended to enforce the indemnification provision of this Section; provided, however, that Stone Applications shall indemnify and hold harmless CAWCD only to the extent that indemnification is not provided to CAWCD by the State of Arizona pursuant to A.R.S. §45-898.01; and provided, further, however, that Stone Applications' indemnification shall only extend to the percentage of degradation attributable to the water stored on behalf of Stone Applications at the AFRP under the terms of this Agreement. Stone Applications retains the right to claims over against any other entity, including CAWCD, storing water in the AFRP in the amount proportionate to such amount stored by those other entities. In no event shall CAWCD assume liability for water quality degradation resulting from the storage of water in the AFRP, solely due to its performance of obligations as the operating agent under this Agreement.

13. BILLING AND PAYMENTS:

- 13.1 On or before the 15th day of each month, CAWCD will bill Stone Applications for each acre-foot of storage capacity used by Stone Applications during the previous month. The amount billed to Stone Applications shall be equal to the Annual Recharge Rate multiplied by the number of acre-feet of Stone Applications Water delivered to the AFRP as measured at the Agua Fria Siphon Blowoff Structure. Stone Applications shall pay CAWCD within thirty (30) days of receipt of such bill. Payment is not contingent upon and is not related to Stone Applications' accrual of long-term storage credits from water stored at the AFRP.
- 13.2 If payment due under this Agreement remains unpaid more than sixty (60) days after its due date, CAWCD may terminate this Agreement effective upon written notice to Stone Applications. In the event CAWCD terminates this Agreement, Stone Applications shall remain obligated to pay any outstanding balance.

14. AUTHORIZATIONS AND APPROVALS:

Stone Applications shall be responsible for obtaining, at its own expense, any permits, authorizations and approvals required for the underground storage and recovery of water in the AFRP or for Stone Applications' performance under this Agreement. Stone Applications shall keep CAWCD informed of its applications for such permits and authorizations. CAWCD will share information with Stone Applications to assist Stone Applications in its permit application(s). Stone Applications shall also be responsible for filing any annual reports or other documents necessary to maintain its right to store water at the AFRP.

15. LIABILITY

- 15.1 Each Party shall assume liability for its own negligence and shall indemnify the other against any damages the non-negligent Party incurs as a result of the negligent Party's action or inaction.
- 15.2 CAWCD shall assume no liability to Stone Applications for claims of damage resulting from CAWCD's decision to curtail or stop water flows to the AFRP site during storm or emergency conditions.
- 15.3 CAWCD shall assume no liability to Stone Applications for quantities of recoverable or unrecoverable water stored underground or removed from underground storage; nor to replace water lost, unintentionally misdirected or otherwise failing to reach the underlying aquifer. CAWCD, Stone Applications and any other entities storing water at the AFRP shall share

in any deficiency resulting from such lost, misdirected or otherwise unstored water in proportion to the amount of the AFRP capacity it used at the time the deficiency accrued.

- 15.4 Liability, as described in Section 12 related to water stored in the AFRP by Stone Applications prior to termination of this Agreement, shall remain with Stone Applications after termination of this Agreement. This Section 15.4 shall survive expiration or termination of this Agreement, and remain in full force and effect.
- 15.5 In the event any third party institutes an action against CAWCD, Stone Applications or other entities storing water at the AFRP for claims arising from the activities undertaken pursuant to this Agreement, the parties named in the action shall meet to determine the procurement of legal counsel and the steps to take to defend against the action.

16. INSURANCE

- 16.1 During the term of this Agreement, unless otherwise agreed in writing by CAWCD, Stone Applications shall procure and maintain in force or cause to be procured and maintained in force the following types of insurance:
 - 16.1.1 Commercial General Liability Insurance naming CAWCD as an additional insured, including bodily injury, personal injury, property damage, wrongful death, and contractual liability with a minimum limit of \$1,000,000 per occurrence.
 - 16.1.2 Business Automobile Liability Insurance with a minimum limit of \$1,000,000.
 - 16.1.3 Worker's Compensation as required by Arizona State law and Employees' Liability Insurance with limits of \$1,000,000 per accident, \$1,000,000 per employee per disease and \$1,000,000 aggregate for disease.
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- 16.2 Any insurance carried by CAWCD shall be excess and not contributory insurance to any insurance afforded hereunder. Stone Applications shall submit satisfactory proof of insurance to CAWCD prior to use of the AFRP. Such proof of insurance shall be in the form of a certificate stating the coverage provided and that such insurance shall not be canceled until after thirty (30) days' prior written notice thereof shall have been given to CAWCD.

- 16.3 With written approval of CAWCD, Stone Applications may self-insure or combine the coverages required by this Agreement with coverages outside the scope of that required by this Agreement.
- 16.4 If Stone Applications fails to acquire, provide or continue the insurance coverages required CAWCD may terminate this Agreement immediately upon written notice to Stone Applications.

17. DEFAULT:

- 17.1 Stone Applications and CAWCD shall pay all monies and carry out all other performances, duties and obligations agreed to be paid and/or performed by them pursuant to this Agreement. A default by Stone Applications or CAWCD in the covenants and obligations to be kept and performed by it shall be an act of default under this Agreement.
- 17.2 In the event of a default by CAWCD or Stone Applications, then, within thirty (30) days following notice of such default by the non-defaulting Party, the defaulting Party shall remedy such default either by advancing the necessary funds and/or rendering the necessary performance. Such notice shall specify the existence and nature of such default. If such default is not remedied within the time specified, the non-defaulting party may terminate this Agreement upon 24 hours' written notice.

18. UNCONTROLLABLE FORCES:

Neither Party to this Agreement shall be considered in default in the performance of any of its obligations under this Agreement (other than obligations of Stone Applications to pay costs and expenses due under Sections 8.1 and 13 for Stone Applications Water stored at AFRP) when a failure of performance is due to Uncontrollable Forces. The term "uncontrollable forces" shall mean any cause beyond the control of the Party unable to perform such obligation, including but not limited to, the failure of or threat of failure of facilities, flood, earthquake, storm, fire, lightning and other natural catastrophes, epidemic, war, riot, civil disturbance or disobedience, labor dispute, labor or material shortage, sabotage, government priorities and restraint by court order or public authority, and action or non-action by or failure to obtain the necessary authorizations or approvals from any governmental agency or authority not a Party to this Agreement, which by exercise of due diligence, it shall be unable to overcome.

19. RESOLUTION OF DISPUTES:

19.1 A Party having a dispute under this Agreement that cannot be resolved by the Parties, may submit the dispute to arbitration. Arbitration shall be subject to the following provisions:

19.1.1 Arbitration shall be binding only upon the consent of the Parties.

19.1.2 A Party wishing to submit a dispute to arbitration shall provide thirty (30) days' written notice to the other Party of its intent to pursue arbitration and shall name one arbitrator at that time. Within fifteen (15) days of receiving this notice, the other Party to the dispute shall name one arbitrator and give written notice to the other Party of its selection. The two selected arbitrators shall, within five (5) days of selection of the second arbitrator, jointly select a third arbitrator.

19.1.3 Within thirty (30) days from the selection of the third arbitrator, the arbitrators shall hold a hearing. Within thirty (30) days from the conclusion of the hearing, the arbitrators shall render a decision on the dispute.

19.1.4 Arbitration shall be subject to the Arizona Arbitration Act, Arizona Revised Statutes, Title 12, Chapter 9, Article 1. In the event of a conflict between this Agreement and the Arizona Arbitration Act, the provisions of this Agreement shall prevail.

19.1.5 A Party that is dissatisfied with the results of non-binding arbitration may pursue any other legal or equitable remedy not expressly provided for in this Section 19 and available to resolve the dispute.

20. ACTION PENDING RESOLUTION OF DISPUTES:

Pending the resolution of a dispute pursuant to Section 19, each Party shall proceed, to the extent legally permissible, in a manner consistent with this Agreement, and shall make payments required in accordance with the applicable provisions of this Agreement. Any amount paid by a Party pursuant to this Section 20 during the course of such dispute shall be subject to refund and adjustment upon a final resolution of any dispute involving an amount due.

21. GOVERNING LAWS

This Agreement shall be governed by laws of the State of Arizona.

22. BINDING OBLIGATIONS:

All of the obligations set forth in the Agreement shall bind CAWCD and its successors and assigns. This Agreement shall not be assigned by Stone Applications or accrue to Stone Applications' successor, nor shall the AFRP capacity use rights hereunder of Stone Applications be used by another party, without the prior written consent of CAWCD. CAWCD retains the right to sell, lease, assign or otherwise convey its ownership of the AFRP to a third party. In such event, CAWCD may cancel this Agreement upon written notice to Stone Applications.

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23.1 Notice, demand or request provided for in this Agreement shall be in writing and shall be deemed properly served, given or made if delivered in person or sent by registered or certified mail, postage prepaid, to the persons specified below:

Central Arizona Water Conservation District
c/o General Manager
P.O. Box 43020
Phoenix, AZ 85080-3020

STONE APPLICATIONS, LLC
c/o Rhett A. Billingsley
Fennemore Craig
2394 E. Camelback Road, Suite 600
Phoenix, AZ 85016

23.2 A Party may, at any time, by notice to the other Party, designate different or additional persons or different addresses for the giving of notices.

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This Agreement shall not be construed to create rights in, or to grant remedies to, any third party as a beneficiary of this Agreement or of any duty, obligation or undertaking established herein.

25. WAIVER:

The waiver by either Party of a breach of any term, covenant or condition in this Agreement shall not be deemed a waiver of any other term, covenant or condition or any subsequent breach of the same or any other term, covenant or condition of this Agreement.

26. HEADINGS:

Title and paragraph headings are for reference only and are not part of this Agreement.

27. ENTIRE AGREEMENT:

The terms, covenants and conditions of this Agreement constitute the entire agreement between the Parties relative to the use of AFRP storage capacity, and no understandings or agreements not herein expressly set forth shall be binding upon them. This Agreement may not be modified or amended in any manner unless in writing and signed by both Parties.

(Signatures on Following Page)

IN WITNESS WHEREOF, this Agreement is executed by the Parties hereto.

CENTRAL ARIZONA WATER CONSERVATION DISTRICT

By: _____
Lisa Atkins, President

Attest: _____
Secretary

STONE APPLICATIONS, LLC

By: _____
Jay Kramer, Authorized Signatory

ACTION BRIEF

BOARD OF DIRECTORS



Agenda Number 5.a.i

CONTACT: Bridget Schwartz-Manock Jeff Gray
623-869-2150 623-869-2425
bschwartzmanock@cap-az.com jgray@cap-az.com

MEETING DATE: Thursday, March 5, 2020

AGENDA ITEM: Possible Consideration of Action on State Issues that Could Impact CAP, Including but not Limited to HB2787, HB2880, and SB1113

RECOMMENDATION: See attached documents and proposed staff recommendations.

FISCAL IMPLICATIONS: No

Impact on Budget:

None

Additional spending authority requested: None

Impact on Reserves:

None

Impact on Rates:

None

LINKAGE TO STRATEGIC PLAN, POLICY, STATUTE OR GUIDING PRINCIPLE:

2016 Board Strategic Plan

- Leadership & Public Trust: Relationships – Improve Relationships with Customers and Stakeholders
- Leadership & Public Trust: CAP Board Leadership – Equip Board Members to Effectively Represent CAP and its Position
- Water Supply: Optimize Reliability and Sustainability of CAP Water Supply

PREVIOUS BOARD ACTION/ACTIVITY:

November 7, 2019 Public Policy Committee previewed and discussed the draft proposed 2020 State Legislative Agenda

December 5, 2019 Board adopted 2020 State Legislative Agenda

February 20, 2020 CAGR and Underground Storage Committee discussed HB2787 and HB2880

ISSUE SUMMARY/DESCRIPTION:

This report describes CAP's state legislative agenda and provides an update on those issues. In addition, this update reports on and requests guidance on bills being considered by the State Legislature.

See attached documents and issue descriptions.

SUGGESTED MOTION:

I move that the Board adopt a position on the following pending state legislation of interest to CAP: (staff recommendations in parentheses)

- HB2787 (MONITOR)
- HB2880 (MONITOR)
- SB1113 (SUPPORT)

ATTACHMENTS:

1. HB2787 House Engrossed
2. HB2880 House Engrossed
3. SB1113

State of Arizona
House of Representatives
Fifty-fourth Legislature
Second Regular Session
2020

HOUSE BILL 2787

AN ACT

AMENDING SECTIONS 45-1972, 48-901, 48-909, 48-909.01, 48-1014 AND 48-1019,
ARIZONA REVISED STATUTES; RELATING TO WATER SUPPLY DEVELOPMENT.

(TEXT OF BILL BEGINS ON NEXT PAGE)

1 Be it enacted by the Legislature of the State of Arizona:

2 Section 1. Section 45-1972, Arizona Revised Statutes, is amended to
3 read:

4 45-1972. Groundwater augmentation and conservation assistance
5 fee; transfer to authority

6 A. Within sixty days after the authority is formed, the department
7 shall transfer to the secretary-treasurer of the authority one-half of all
8 unencumbered monies and the accrued interest on those monies that were
9 collected in the active management area in which the authority is located
10 during the prior year pursuant to section 45-611, subsection C,
11 paragraph 2.

12 B. Each year the director shall transfer an amount of not ~~more~~ LESS
13 than ~~two hundred thousand dollars~~ \$200,000 to the secretary-treasurer of
14 the authority from the monies collected in that year in the active
15 management area in which the authority is located pursuant to section
16 45-611, subsection C, paragraphs 2 and 3. The director shall specify the
17 amount from each funding source to be transferred.

18 C. The secretary-treasurer shall deposit the transferred monies in
19 the general fund of the authority, and the authority may spend the monies
20 to carry out the purposes of this chapter.

21 Sec. 2. Section 48-901, Arizona Revised Statutes, is amended to
22 read:

23 48-901. Definitions

24 In this article, unless the context otherwise requires:

25 1. "Assessment" or "assessment roll" means a special assessment
26 made under this article.

27 2. "Block" means a parcel of ground, regular or irregular, bounded
28 by streets or by streets and district boundary lines.

29 3. "Chairman of the board" means the person designated to preside
30 over meetings of the board of directors.

31 4. "Clerk" or "district clerk" means the clerk of the board of
32 supervisors, who shall be the clerk under this article and in whose office
33 shall be filed all papers directed or required to be filed with the clerk.

34 5. "Commercial farming" means the intensive cultivation of arable
35 land by the raising of agricultural or horticultural products as a
36 principal source of the owner's livelihood.

37 6. "Commercial stock raising" means the breeding, raising and care
38 of domestic animals as a principal source of the owner's livelihood.

39 7. "Contractor" includes personal representatives or assignee of
40 the contractor.

41 8. "Delinquency" means delinquency in the payment of an assessment.

42 9. "Engineer" or "district engineer" means a person designated or
43 employed by the board of directors of a district to perform any or all of
44 the engineering work authorized to be done by the district under this
45 article.

- 1 10. "Improvement bond" means a bond issued under this article.
- 2 11. "Lighting plants" includes electric light plants, electric
3 power plants, gas plants, distribution systems, poles, parts, pipes,
4 conduits, wires, tanks, reservoirs, generators for gas or electricity,
5 transmission lines, towers, lamps, transformers of every character,
6 machinery, apparatus, equipment and all appliances and structures
7 necessary or incidental to the construction, installation or operation of
8 a complete electric light, power and gas plant and distribution system
9 placed on the streets improved, though extended beyond.
- 10 12. "Lot" includes any portion, piece, parcel or subdivision of
11 land, but not property owned or controlled by any person as a railroad
12 right of way.
- 13 13. "Owner" means the person in whom legal title appears by
14 recorded deed, or the person in possession under claim or title, or the
15 person exercising acts of ownership for himself or as the personal
16 representative of the owner, including the boards of trustees of school
17 districts and the boards of education of high school districts owning
18 property within the proposed improvement district.
- 19 14. "Sewers" includes wastewater treatment facilities, tunnels,
20 excavations, ditches, drains, conduits, channels, outlets, outfalls,
21 cesspools, manholes, catch basins, flush tanks, septic tanks, connecting
22 sewers of every character, machinery, apparatus, equipment and all
23 appliances and structures necessary or incidental to the construction,
24 installation or operation of a complete sewer system for either sanitary
25 or drainage purposes.
- 26 15. "Street" includes avenues, alleys, highways, lanes, crossings,
27 intersections, courts, places and grounds opened or dedicated to public
28 use and public ways.
- 29 16. "Street superintendent" or "superintendent" means a county
30 employee designated by the board of supervisors to perform the duties of
31 street superintendent for all the districts organized under this article
32 in any county.
- 33 17. "Time of delinquency" means the time when assessments become
34 delinquent.
- 35 18. "Treasurer" or "district treasurer" means the treasurer of the
36 county in which a district is situated, who shall be the treasurer of the
37 district.
- 38 19. "Unincorporated area" means any portion of a county not within
39 the limits of an incorporated city or town, so situated that any of the
40 improvements provided for in this article might reasonably or properly be
41 made or constructed for the benefit of the inhabitants of the area under
42 existing special assessment statutes if the area were situated within an
43 incorporated city or town.
- 44 20. "Wastewater systems" means sewers and other wastewater
45 treatment facilities.

1 21. "WATER ASSETS" MEANS WATER AND WATER RIGHTS, INCLUDING
2 GROUNDWATER, SURFACE WATER, TREATED WASTEWATER, CENTRAL ARIZONA PROJECT
3 WATER, COLORADO RIVER WATER, STORED WATER AS DEFINED IN SECTION 45-802.01,
4 LONG-TERM STORAGE CREDITS AS DEFINED IN SECTION 45-802.01, GRANDFATHERED
5 RIGHTS AS DEFINED IN SECTION 45-402, GRANDFATHERED RIGHT EXTINGUISHMENT
6 CREDITS, GROUNDWATER WITHDRAWAL PERMITS AND EXCHANGED WATER.

7 ~~21.~~ 22. "Waterworks" means works for the storage or development of
8 water for domestic uses, including drinking water treatment facilities,
9 wells, pumping machinery, power plants, pipelines and all equipment
10 necessary for those purposes.

11 ~~22.~~ 23. "Work" or "improvement" includes any of the improvements
12 mentioned and authorized to be made in this article, INCLUDING WATER
13 ASSETS, the ACQUISITION, CREATION, construction, reconstruction and repair
14 of all or any portion of any such improvement, and labor, services,
15 expenses and material necessary or incidental thereto.

16 Sec. 3. Section 48-909, Arizona Revised Statutes, is amended to
17 read:

18 48-909. Purposes for which public improvements may be
19 undertaken; powers incidental to public
20 improvements

21 A. When the public interest or convenience requires, the board of
22 directors of an improvement district may order:

23 1. The whole or any portion, either in length or width, of one or
24 more of the streets of the district graded or regraded, paved or repaved,
25 landscaped or otherwise maintained, improved or reimproved.

26 2. The acquisition, construction, reconstruction or repair of any
27 street, tunnel, subway, viaduct or conduit in, on, under or over which the
28 district may have an easement or right-of-way therefor.

29 3. The construction or reconstruction of sidewalks, crosswalks,
30 curbs, gutters, culverts, bridges, tunnels, siphons, manholes, steps,
31 parkings and parkways.

32 4. The placement, replacement or repair of pipes, hydrants and
33 appliances for fire protection.

34 5. The acquisition, construction, reconstruction, maintenance or
35 repair of wastewater treatment facilities, sewers, ditches, drains,
36 conduits, pipelines and channels for sanitary and drainage purposes, with
37 outlets, cesspools, manholes, catch basins, flush tanks, septic tanks,
38 connecting sewers, ditches, drains, conduits, channels and other
39 appurtenances in, under, over or through any street or any land of the
40 district or any right-of-way granted or obtained for such a purpose,
41 either within or without the district limits.

42 6. The acquisition, construction, reconstruction, maintenance or
43 repair of waterworks, including drinking water treatment facilities, for
44 the delivery of water for domestic purposes, and of wells, ditches,
45 canals, channels, conduits, pipelines and siphons, together with the

1 necessary or usual appurtenances for carrying storm water or water from
2 irrigation ditches, watercourses, streams or springs into, through or out
3 of the district in, under, over or through any street, or any land of the
4 district or any right-of-way granted or obtained for such a purpose,
5 either within or without the district limits. This section does not
6 prohibit the board of directors of an improvement district from purchasing
7 an existing domestic water delivery system within the district or outside
8 the district or constructing an initial or improving an existing domestic
9 water delivery system inside or outside the district.

10 7. The construction, reconstruction or repair of breakwater levees
11 or walls, riverbank protection or replacement of riverbanks and supporting
12 land. A district established for this purpose shall cooperate and
13 coordinate its plans and activities with the county flood control district
14 established in the county and any incorporated city or town in which the
15 district is established.

16 8. The acquisition, construction, reconstruction or repair of
17 lighting plants and poles, wire conduits, lamps, standards and other
18 appliances for the purpose of lighting and beautifying streets or other
19 public lands.

20 9. The construction, reconstruction or repair of any work
21 incidental to or connected with any improvement.

22 10. The acquisition, in the name of the district, by gift, purchase
23 or otherwise and the maintenance, repair, improvement or disposal of any
24 real or personal property necessary or convenient for district operation
25 for a community center, park or recreational area.

26 11. Pursuant to section 48-902, the board of directors of an
27 improvement district may contract for or in any other manner provide
28 transportation services within the district.

29 12. THE ACQUISITION, CREATION, MAINTENANCE OR PLEDGE OF WATER
30 ASSETS FOR THE PURPOSE OF MUNICIPAL, INDUSTRIAL, COMMERCIAL OR DOMESTIC
31 DEVELOPMENT.

32 B. In addition to the powers specifically granted by or reasonably
33 inferred from this article, an improvement district through its board of
34 directors may:

35 1. Acquire by gift, purchase, condemnation or otherwise in the name
36 of the district and own, control, manage and dispose of any real or
37 personal property or interest in the property necessary or convenient for
38 the construction, operation and maintenance of any of the improvements
39 provided for by this article.

40 2. Join with any other improvement district, any city, town,
41 governmental agency or Indian tribe, or any agency or instrumentality of
42 an Indian tribe, or any person in the construction, operation or
43 maintenance of any of the improvements hereby authorized.

44 3. Join with any other improvement district or any city, town,
45 county or Indian tribe, or any agency or instrumentality of an Indian

1 tribe, in improving streets running on or along the boundary of the
2 district and levy assessments and issue bonds for the district's part of
3 the cost of those improvements.

4 4. Sell, lease or otherwise dispose of any property of the district
5 or interest in the property when the property is no longer required for
6 the purposes of the district or the use of which may be permitted without
7 interfering with the use thereof by the district.

8 5. Sell or otherwise dispose of any property or material acquired
9 in the construction or operation of any improvements as a by-product or
10 otherwise, and acquire rights-of-way for the disposal by condemnation or
11 otherwise.

12 6. Accept from this state or the federal government, or any agency,
13 department or instrumentality of either, grants for or in aid of the
14 construction of any of the improvements provided for by this chapter.

15 7. Notwithstanding any other law, sell improvement bonds to the
16 federal government, or any agency, department or instrumentality of the
17 federal government, for the construction of any of the improvements
18 provided by this chapter.

19 8. Enter into contracts with this state or the federal government,
20 or any agency, department or instrumentality of either or both, for the
21 construction or supervision of construction by ~~the~~ THIS state ~~of Arizona~~
22 or the federal government, or any agency, department or instrumentality of
23 either or both, but reserving to the district the right to assess against
24 the property benefited by the improvement, and located within the
25 district, that portion of the cost of the improvement that does not
26 qualify for aid under a state or federal grant.

27 9. Operate, maintain and repair the streets within the district and
28 any improvements made pursuant to this chapter.

29 10. Do all things incidental to the exercise of the powers granted
30 by this article.

31 C. A county improvement district formed for the purpose of
32 purchasing an existing or constructing a new domestic water delivery
33 system within the district or outside the district shall have the same
34 authority and responsibility as an incorporated city or town pursuant to
35 title 45 and chapters 22 and 28 of this title.

36 D. An improvement district that proposes to provide domestic water
37 service within the certificated area of a public service corporation
38 serving domestic water shall provide just compensation to the public
39 service corporation pursuant to section 9-516 for the facilities or
40 certificated area taken. The right to compensation for a public service
41 corporation from an improvement district shall not apply if no facilities
42 of the public service corporation are actually acquired by the improvement
43 district and either of the following conditions exist:

1 1. At the time the law providing for compensation became effective
2 the certificated area for which compensation is sought is an area that was
3 within the boundaries of an improvement district.

4 2. A certificate is issued to a public service corporation for any
5 area that is within an improvement district at the time the certificate is
6 issued.

7 E. If the county board of supervisors determines that the public
8 interest or convenience so requires, an improvement district that is
9 formed for the purposes of providing domestic water service pursuant to
10 article 4 of this chapter may also provide domestic wastewater service.

11 Sec. 4. Section 48-909.01, Arizona Revised Statutes, is amended to
12 read:

13 48-909.01. Wastewater treatment facility; waterworks; sewer
14 collection system and nonpoint source projects;
15 financial assistance loan repayment agreements;
16 definitions

17 A. Notwithstanding any other law, a county improvement district,
18 including a domestic wastewater improvement district, may construct or
19 improve a wastewater treatment facility, sewer collection system,
20 waterworks, including a drinking water treatment facility, or nonpoint
21 source project OR UNDERTAKE WATER SUPPLY DEVELOPMENT or any combination of
22 those projects with monies borrowed from or financial assistance provided
23 by the water infrastructure finance authority of Arizona pursuant to title
24 49, chapter 8.

25 B. To repay financial assistance from the water infrastructure
26 finance authority of Arizona, a county improvement district, including a
27 domestic wastewater improvement district, may enter into a financial
28 assistance loan repayment agreement with the authority to repay any
29 financial assistance provided by the water infrastructure finance
30 authority of Arizona. A financial assistance loan repayment agreement is
31 payable from any revenues otherwise authorized by law to be pledged to
32 repay long-term indebtedness. A financial assistance loan repayment
33 agreement may be secured either by assessments or by a pledge of revenues
34 of the district or any combination of those sources. If the financial
35 assistance loan repayment agreement is secured in whole or in part by
36 assessments levied pursuant to this article, the financial assistance loan
37 repayment agreement shall be treated as a series of bonds to the extent
38 that they are secured by those assessments and the board of directors of
39 the district has all powers and duties to collect assessment installments
40 and enforce delinquent assessments through sale and eventual issuance of
41 deeds in the same manner as if the assessments were evidenced by bonds.

42 C. The board of directors of the district shall obtain approval for
43 the financial assistance loan repayment agreement in the same manner
44 provided by law for approving and issuing bonds or other long-term
45 indebtedness that is secured by those assessments or revenues or a

1 combination of assessments and revenues that are to be pledged to repay
2 the loan.

3 D. A financial assistance loan repayment agreement entered into
4 pursuant to this section shall contain the covenants and conditions
5 pertaining to constructing a wastewater treatment facility, sewer
6 collection system, waterworks, including a drinking water treatment
7 facility, or nonpoint source project OR WATER SUPPLY DEVELOPMENT or any
8 combination of those projects and repaying the loan as the water
9 infrastructure finance authority of Arizona deems proper. Financial
10 assistance loan repayment agreements may provide for paying interest on
11 the unpaid principal balance of the agreement at the rates established in
12 the agreement. The agreement may also provide for paying the district's
13 proportionate share of the expenses of administering the clean water
14 revolving fund established by section 49-1221 and may provide that the
15 district pay financing and loan administration fees approved by the water
16 infrastructure authority of Arizona. These costs may be included in the
17 assessment and revenue amounts pledged to repay the financial assistance
18 loan repayment agreement. Districts are bound by and shall fully perform
19 the financial assistance loan repayment agreements, and the agreements are
20 incontestable after the loan is funded by the water infrastructure finance
21 authority of Arizona. The district shall also agree to pay the
22 authority's costs in issuing bonds or otherwise borrowing to fund a loan.

23 E. The water infrastructure finance authority of Arizona shall not
24 require that payment of a financial assistance loan repayment agreement be
25 made from other than those sources permitted in subsection B of this
26 section. The financial assistance loan repayment agreement may also
27 include covenants concerning the operation of the system, the setting of
28 rates and provisions for the appointment of a receiver to take charge of
29 and operate a sewer collection system, a waterworks, including a drinking
30 water treatment facility, and a wastewater treatment system if the
31 financial assistance loan repayment agreement is not paid in a timely
32 manner and, in the sole discretion of the water infrastructure finance
33 authority of Arizona, if the district will not be able to cure the
34 default.

35 F. A district may employ or contract for the services of attorneys,
36 accountants, financial consultants and other experts in their fields as
37 deemed necessary to perform services with respect to the financial
38 assistance loan repayment agreement. These costs are incidental expenses
39 and shall be included in any assessments.

40 G. This section is supplemental and alternative to any other law
41 under which a district may borrow monies or issue bonds. This section is
42 not the exclusive authorization to enter into loan agreements with the
43 water infrastructure finance authority of Arizona.

44 H. A district may borrow additional monies or enter into additional
45 financial assistance loan repayment agreements with the water

1 infrastructure finance authority in an amount up to the amount approved
2 pursuant to subsection C of this section less the amount that the district
3 is obligated to repay to the water infrastructure finance authority of
4 Arizona pursuant to a financial assistance loan repayment agreement.

5 I. For the purposes of this section: ~~;~~

6 1. "Nonpoint source project" has the same meaning prescribed in
7 section 49-1201.

8 2. "WATER SUPPLY DEVELOPMENT" HAS THE SAME MEANING PRESCRIBED IN
9 SECTION 49-1201.

10 Sec. 5. Section 48-1014, Arizona Revised Statutes, is amended to
11 read:

12 48-1014. Powers and duties of an elected or appointed board
13 of directors

14 A. The board of directors of a domestic water improvement district
15 or domestic wastewater improvement district elected or appointed pursuant
16 to this article shall have all the powers and duties of the board of
17 supervisors sitting as the board of directors of a county improvement
18 district formed for the purposes prescribed in section 48-909, subsection
19 A, paragraph 1, 2, 3, 4, 5, ~~or~~ 6 OR 12, including the related powers and
20 duties prescribed in section 48-909, subsection B and section 48-910, and
21 that are not in conflict with this article. A single district may be
22 formed for or converted to a combination of water and wastewater purposes.

23 B. Additions to and alterations of the district shall be made as
24 follows:

25 1. A petition addressed to the district governing board requesting
26 the addition or alteration may be filed with the clerk of the governing
27 body, if signed by a majority of the persons owning property and by the
28 owners of fifty-one ~~per cent~~ PERCENT or more of the assessed valuation of
29 the property within the limits of the proposed addition or alteration.

30 2. A petition with the required number of signatures shall not be
31 declared void on account of any alleged defect, but the governing body
32 shall allow the petition to be amended in form and substance to conform to
33 the requirements of this article. One or more similar petitions, or
34 copies of the same petition with additional signatures, for the addition
35 to or alteration of the improvement district may be filed before the time
36 of the hearing on the first petition, ~~;~~ and shall be considered as though
37 filed with the first petition. The petition shall be presumed to contain
38 the signatures of the persons whose signatures appear on the petition,
39 unless the contrary is proved.

40 3. The petition shall set forth:

41 (a) The name of the improvement district to which the addition or
42 alteration is proposed.

43 (b) The necessity for the proposed addition or alteration.

1 (c) That the public convenience, necessity or welfare will be
2 promoted by the addition or alteration of the district and that the
3 property to be included in the district will be benefited.

4 (d) The boundaries of the proposed addition or alteration.

5 4. Each copy of the petition shall be verified by one of the
6 petitioners and shall be accompanied by a plat or sketch indicating the
7 approximate area and boundaries of the district.

8 5. On receipt of a petition for an addition or alteration of a
9 district, the governing body shall set a date for a hearing on the
10 petition not later than forty days after presentation of the petition. At
11 the hearing all interested property owners may appear and be heard on any
12 matter relating to the addition to or alteration of the district. Any
13 person wishing to object to the addition or alteration may file, before
14 the date set for the hearing, the person's objections with the clerk of
15 the governing body.

16 6. Notice announcing the hearing and stating the boundaries of the
17 proposed addition or alteration shall be published twice in a newspaper of
18 general circulation in the county within which the district is
19 located. The publications shall be one week apart, and the first
20 publication shall be not less than ten days before the date of the
21 hearing. The notice shall also be mailed by first class mail at least
22 twenty days before the hearing to the property owners within the area of
23 the proposed addition or alteration according to the names and addresses
24 that appear on the most recent property tax assessment roll.

25 7. At the hearing, if it appears after consideration of all
26 objections that the petition is signed by the requisite number of property
27 owners, and that the public convenience, necessity or welfare will be
28 promoted by the addition to or alteration of the district, the governing
29 body by formal order shall declare its findings and order the addition to
30 or alteration of the district.

31 8. If the governing board finds that the public convenience,
32 necessity or welfare will not be promoted by the addition to or alteration
33 of the district, the governing body by formal order shall declare its
34 findings.

35 C. Notwithstanding subsection B of this section, any property owner
36 whose land is within a county that contains an improvement district and
37 whose land is adjacent to the boundaries of the improvement district may
38 request in writing that the governing body of the district amend the
39 district boundaries to include that property owner's land. If the
40 governing body determines that the inclusion of that property will benefit
41 the district and the property owner, the boundary change may be made by
42 order of the governing body and is final on the recording of the governing
43 body's order that includes a legal description of the property that is
44 added to the district. A petition is not required for an amendment to an
45 improvement district's boundaries made pursuant to this subsection.

1 D. On approval of any boundary change of the district, the district
2 board may order the successful petitioners or requesters to pay all of the
3 costs of the boundary change.

4 Sec. 6. Section 48-1019, Arizona Revised Statutes, is amended to
5 read:

6 48-1019. Drinking water facility and wastewater facility
7 projects; financial assistance loan repayment
8 agreements; definitions

9 A. Notwithstanding any other law, a domestic water or wastewater
10 improvement district may construct, acquire, or improve a drinking water,
11 wastewater or water reclamation facility **OR UNDERTAKE WATER SUPPLY**
12 **DEVELOPMENT** with monies borrowed from or financial assistance, including
13 forgivable principal, provided by the water infrastructure finance
14 authority of Arizona pursuant to title 49, chapter 8.

15 B. To repay financial assistance from the authority a district may
16 enter into a financial assistance loan repayment agreement with the
17 authority. A financial assistance loan repayment agreement is payable
18 from any revenues otherwise authorized by law to be used to pay long-term
19 obligations.

20 C. For a district with a population of more than fifty thousand
21 persons, the board of directors of the district shall submit the question
22 of entering and performing a financial assistance loan repayment agreement
23 to the qualified electors voting at a regular or special election in the
24 district. An election is not required if voter approval has previously
25 been obtained for substantially the same project with another funding
26 source. For a district with a population of fifty thousand persons or
27 less, the board may enter into the financial assistance loan repayment
28 agreement on the approval of the board and an election is not required.

29 D. A financial assistance loan repayment agreement entered into
30 pursuant to this section shall contain the covenants and conditions
31 pertaining to **WATER SUPPLY DEVELOPMENT OR TO** the construction, acquisition
32 or improvement of a drinking water, wastewater or water reclamation
33 facility and repayment of the loan as the authority deems proper.
34 Financial assistance loan repayment agreements may provide for the payment
35 of interest on the unpaid principal balance of the agreement at the rates
36 established in the agreement. The agreement may also provide for payment
37 of the domestic water or wastewater improvement district's proportionate
38 share of the expenses of administering the drinking water revolving fund
39 established by sections 49-1221 and 49-1241 and may provide that the
40 domestic water or wastewater improvement district pay financing and loan
41 administration fees approved by the authority. These costs may be
42 included in the assessment or revenue amounts pledged to repay the
43 loan. Districts are bound by and shall fully perform the loan repayment
44 agreements, and the agreements are incontestable after the loan is funded
45 by the authority. The domestic water improvement district shall also

1 agree to pay the authority's costs in issuing bonds or otherwise borrowing
2 to fund a loan.

3 E. A financial assistance loan repayment agreement under this
4 section does not create a debt of the domestic water or wastewater
5 improvement district, and the authority shall not require that payment of
6 a loan agreement be made from other than those sources permitted in
7 subsection B of this section.

8 F. A domestic water or wastewater improvement district may employ
9 or contract for the services of attorneys, accountants, financial
10 consultants and other experts in their field as deemed necessary to
11 perform services with respect to the financial assistance loan repayment
12 agreement.

13 G. This section is supplemental and alternative to any other law
14 under which a district may borrow money or issue bonds. This section
15 ~~shall be construed as~~ CONSTITUTES the exclusive authorization to enter
16 into loan agreements with the authority.

17 H. A district may borrow additional monies or enter into additional
18 financial assistance loan repayment agreements with the water
19 infrastructure finance authority in an amount up to the amount approved
20 pursuant to subsection C of this section less the amount that the district
21 is obligated to repay to the water infrastructure finance authority
22 pursuant to a financial assistance loan repayment agreement.

23 I. For the purposes of this section:

24 1. "Authority" means the water infrastructure finance authority of
25 Arizona.

26 2. "WATER SUPPLY DEVELOPMENT" HAS THE SAME MEANING PRESCRIBED IN
27 SECTION 49-1201.

State of Arizona
House of Representatives
Fifty-fourth Legislature
Second Regular Session
2020

HOUSE BILL 2880

AN ACT

AMENDING TITLE 45, CHAPTER 2, ARTICLE 9, ARIZONA REVISED STATUTES, BY ADDING SECTION 45-576.08; AMENDING SECTION 45-579, ARIZONA REVISED STATUTES; AMENDING TITLE 45, CHAPTER 2, ARTICLE 9, ARIZONA REVISED STATUTES, BY ADDING SECTION 45-579.01; RELATING TO THE GROUNDWATER CODE.

(TEXT OF BILL BEGINS ON NEXT PAGE)

1 Be it enacted by the Legislature of the State of Arizona:

2 Section 1. Title 45, chapter 2, article 9, Arizona Revised
3 Statutes, is amended by adding section 45-576.08, to read:

4 45-576.08. Pinal active management area: assured water
5 supply; physical availability; definitions

6 A. THE FOLLOWING APPLY IN THE PINAL ACTIVE MANAGEMENT AREA FOR AN
7 APPLICATION TO MODIFY OR RENEW A DESIGNATION OF ASSURED WATER SUPPLY:

8 1. THE DIRECTOR SHALL NOT REVIEW THE PHYSICAL AVAILABILITY OF
9 GROUNDWATER DETERMINED TO BE PHYSICALLY AVAILABLE UNDER THE PREVIOUS
10 DESIGNATION DETERMINATION IF THE APPLICATION IS NOT SEEKING AN INCREASE IN
11 THE TOTAL GROUNDWATER DEMAND DETERMINED TO BE AVAILABLE UNDER THE PREVIOUS
12 DESIGNATION. THE PHYSICAL AVAILABILITY OF GROUNDWATER DETERMINED TO BE
13 PHYSICALLY AVAILABLE UNDER THE PREVIOUS DESIGNATION SHALL NOT BE GROUNDS
14 FOR AN OBJECTION. THIS SECTION IS NOT INTENDED TO AFFECT THE DIRECTOR'S
15 REVIEW OF ASSURED WATER SUPPLY CRITERIA OTHER THAN GROUNDWATER PHYSICAL
16 AVAILABILITY.

17 2. THE FOLLOWING ARE DEEMED PHYSICALLY AVAILABLE FOR PURPOSES OF AN
18 ASSURED WATER SUPPLY DESIGNATION:

19 (a) STORED WATER THAT IS TO BE RECOVERED BY THE APPLICANT WITHIN
20 THE AREA OF IMPACT PURSUANT TO EXISTING LONG-TERM STORAGE CREDITS PLEDGED
21 TO THE DESIGNATION OF ASSURED WATER SUPPLY.

22 (b) STORED WATER THAT IS TO BE RECOVERED WITHIN THE AREA OF IMPACT
23 BY THE APPLICANT EITHER ON AN ANNUAL BASIS PURSUANT TO SECTION 45-851.01
24 OR AS LONG-TERM STORAGE CREDITS TO BE EARNED IN THE FUTURE IF THE WATER TO
25 BE STORED MEETS THE PHYSICAL AVAILABILITY REQUIREMENTS FOR THE WATER
26 SUPPLY UNDER RULES ADOPTED PURSUANT TO SECTION 45-576, SUBSECTION H.

27 B. FOR THE PURPOSES OF THIS SECTION:

28 1. "AREA OF IMPACT" MEANS ANY ONE OF THE FOLLOWING:

29 (a) WITHIN ONE MILE OF AN EXISTING OR PROPOSED UNDERGROUND STORAGE
30 FACILITY.

31 (b) WITHIN THE DISTRICT BOUNDARIES OF AN IRRIGATION DISTRICT THAT
32 HAS A PERMIT FOR A GROUNDWATER SAVINGS FACILITY.

33 (c) FOR AREAS THAT ARE NOT PRESCRIBED BY SUBDIVISIONS (a) AND (b)
34 OF THIS PARAGRAPH, AREAS THAT HAVE BEEN SHOWN TO HAVE BEEN POSITIVELY
35 IMPACTED BY THE STORAGE ACTIVITY AS DEMONSTRATED BY A HYDROLOGIC MODEL
36 APPROVED BY THE DIRECTOR.

37 2. "LONG-TERM STORAGE CREDIT" HAS THE SAME MEANING PRESCRIBED IN
38 SECTION 45-802.01.

39 3. "STORED WATER" HAS THE SAME MEANING PRESCRIBED IN SECTION
40 45-802.01.

1 Sec. 2. Section 45-579, Arizona Revised Statutes, is amended to
2 read:

3 45-579. Assignment of certificate of assured water supply;
4 definition

5 A. A holder of a certificate of assured water supply issued
6 pursuant to section 45-576 may assign the certificate, in whole or in
7 part, to another person if the holder applies to the director for approval
8 within ten years after the original certificate was issued and the
9 director approves the application. An application may be filed under this
10 section more than ten years after the original certificate was issued if a
11 minimum of five hundred lots within the subdivision covered by the
12 certificate have been sold to individual home buyers by the holder of the
13 certificate and any previous holders of the certificate. An application
14 filed under this section shall be on a form prescribed by the director.
15 The director shall approve a timely application for assignment of a
16 certificate of assured water supply if the director determines that all of
17 the following apply:

18 1. The proposed assignee owns or is acquiring the subdivision to
19 which the current certificate applies, or if the application is for a
20 partial assignment, the portion of the subdivision to which the current
21 certificate applies that is the subject of the proposed assignment.

22 2. There has not been any material change in the subdivision plat,
23 plan or map since the certificate was originally issued, including ~~an~~
24 ~~increase in the total number of housing units or~~ an increase in the total
25 water demand for the subdivision, including all assignments.

26 3. Either there is water delivery infrastructure in place that is
27 capable of delivering water to each lot within the subdivision or the
28 proposed assignee has demonstrated financial capability to complete the
29 infrastructure. In determining whether the proposed assignee has
30 demonstrated financial capability to complete the infrastructure, the
31 director shall apply the same standards that are used in evaluating
32 financial capability for a new certificate application.

33 4. The water provider serving the subdivision and the source of
34 supply have not changed since the current certificate was issued and the
35 water provider has agreed to serve the subdivision after the assignment.

36 5. Water rights, permits, licenses, contracts and easements other
37 than the municipal provider's service area rights at the time the current
38 certificate was issued have been assigned and may be used to support water
39 service to the portion of the subdivision that is the subject of the
40 assignment and to any remaining portions of the subdivision that are
41 retained by the subdivider.

42 6. There has not been any change in the manner in which the
43 consistency with management goal requirements were satisfied at the time
44 the original certificate was issued.

1 B. After a change of ownership has occurred and on approval of an
2 assignment, the director shall issue a certificate of assured water supply
3 in the name of the assignee, retaining the date of the original
4 certificate as the date of issuance.

5 C. In the case of a partial assignment, the director shall issue a
6 certificate in the name of the assignee for the portion of the subdivision
7 that is the subject of the proposed assignment, and shall issue a
8 certificate in the name of the assignor for the portion of the subdivision
9 retained, each with the date of the original certificate as the date of
10 issuance. The new certificates shall include all water demand for the
11 subdivision represented by the current certificate. The allocation of
12 demand between the certificates shall be based on a reasonable plan for
13 allocation of the total subdivision demand as approved by the director.

14 D. Section 45-578 does not apply to an application filed under this
15 section. Section 45-114, subsections A and B govern administrative
16 proceedings, rehearing and review and judicial review of final decisions
17 of the director under this section. If an administrative hearing is held,
18 it shall be conducted in the active management area in which the use is
19 located.

20 E. Within two business days after receiving an application under
21 subsection A of this section, the director shall post notice of the
22 application on the department's ~~web site~~ WEBSITE until the director issues
23 a decision on the application. The notice shall include notice of the
24 right to submit comments on the application as provided in this
25 subsection, including a toll free number where comments may be submitted
26 by telephone and the addresses where comments may be submitted by United
27 States mail, electronic mail and hand delivery. Any person may submit
28 comments on the application within fourteen calendar days after the first
29 day that notice of the application is posted on the department's ~~web site~~
30 WEBSITE. The director shall consider all timely comments submitted on the
31 application before issuing a decision on the application. Within two
32 business days after issuing a decision on the application, the director
33 shall post notice of the decision on the department's ~~web site~~ WEBSITE for
34 a minimum of fourteen days. Notwithstanding title 41, chapter 6, article
35 10 and section 45-114, a person who submits comments on an application
36 pursuant to this subsection is not a party for purposes of title 41,
37 chapter 6, article 10, is not entitled to an administrative hearing before
38 or after the director's decision on the application and is not entitled to
39 judicial review of the director's decision.

40 F. For the purposes of this section, "original certificate" means
41 the initial certificate of assured water supply that is issued by the
42 director for a subdivision.

State of Arizona
Senate
Fifty-fourth Legislature
Second Regular Session
2020

SENATE BILL 1113

AN ACT

AMENDING SECTION 42-18054, ARIZONA REVISED STATUTES; RELATING TO PROPERTY TAX.

(TEXT OF BILL BEGINS ON NEXT PAGE)

1 Be it enacted by the Legislature of the State of Arizona:

2 Section 1. Section 42-18054, Arizona Revised Statutes, is amended
3 to read:

4 42-18054. Tax statements for mortgaged property; liability

5 A. If property that is subject to taxation by the county assessor
6 is mortgaged and the mortgagee, or a person acting for the mortgagee, by
7 the terms of the mortgage agreement pays the tax on behalf of the
8 mortgagor:

9 1. The county treasurer shall mail a statement of taxes due on the
10 property to the mortgagor at the mortgagor's last known address. The tax
11 statement sent to the mortgagor shall be MAILED BEFORE NOVEMBER 1 AND BE a
12 written document ~~and may be in any form established by the county~~
13 ~~treasurer~~. THE TAX STATEMENT SHALL SEPARATELY LIST THE FOLLOWING FOR THE
14 CURRENT AND PREVIOUS TAX YEARS FOR THE PROPERTY:

15 (a) THE AMOUNT OF PRIMARY TAXES AND SECONDARY TAXES APPLICABLE TO
16 THE PROPERTY THAT IS DUE TO EACH TAXING JURISDICTION.

17 (b) IF APPLICABLE, THE AMOUNT OF ADDITIONAL STATE AID TO SCHOOL
18 DISTRICTS PROVIDED TO PROPERTY CLASSIFIED AS CLASS THREE PURSUANT TO
19 SECTION 42-12003.

20 2. The county treasurer, on request, shall send a statement of
21 taxes due on the property to the mortgagee. The tax statement sent to the
22 mortgagee may be in any form established by the county treasurer.

23 ~~2.~~ 3. The liability for the tax, and any subsequent interest, fees
24 and penalties, does not depend on either the mortgagor or the mortgagee
25 receiving the tax statement.

26 B. When a mortgagee either continues to receive or possesses an
27 unsatisfied tax statement from the county treasurer after the mortgage is
28 satisfied, the mortgagee shall either:

29 1. Return the tax statement to the county treasurer within thirty
30 working days, together with the last known address of the mortgagor as
31 shown on the records of the mortgagee.

32 2. Forward the tax statement or current taxes due information to
33 the mortgagor and notify the county treasurer of this action.

34 C. If a mortgagee fails to comply with subsection B of this section
35 and, as a result of the mortgagee's failure to comply, the tax on the
36 mortgagor's property becomes delinquent, the mortgagee is liable to the
37 mortgagor for all interest and penalties imposed by law for the delinquent
38 tax.



February 20, 2020 Meeting

Committee Members present were: Chair Terry Goddard, Maricopa County; Vice Chair Mark Taylor, Pima County; Alexandra Arboleda, Maricopa County; Karen Cesare, Pima County; Pat Jacobs, Pima County; and Jennifer Martin, Maricopa County.

Report on Internal Audit Activities

Ramon Ramirez, Internal Auditor, delivered required periodic communication in order to maintain compliance with professional auditing standards. Specifically, he confirmed his independence from direct oversight from CAP staff and spoke to the four Code of Ethic Principles that guide an auditor: Integrity, Objectivity, Confidentiality, and Competency.

Discussion and Consideration of Action to Recommend that the Board Approve Additional Spending Authority for Navajo Generating Station Decommissioning Costs

Doug Dunlap, Finance and Accounting Manager followed up his presentation on this topic from the January 2020 FAP meeting with a staff recommendation to fund the additional \$25.7 million liability related to the decommissioning of Navajo Generating Station and the final reclamation costs of the Kayenta Mine. Once this additional decommissioning liability is recorded, staff will return with funding options and a recommendation at a later Committee meeting. Board Member Taylor asked clarifying questions relating to the source of repayment from the General Fund: taxes or rates. Staff clarified that this was an accounting requirement to book the expense to the period in which CAP became aware of it, but the discussion on funding the liability would come at a later date. Chairman Goddard asked for specifics relating to the source of the increased liability. Staff replied it was related to closure of the mine, rather than NGS. Board Member Jacobs asked if these were the final numbers now that negotiations were over. Mr. Dunlap indicated that there may be some fluctuation in the next few years as remediation occurs, but once the land has been restored, the ongoing monitoring costs for 30 years will be known and fixed. The Committee voted unanimously to forward the recommendation to the Board.

Discussion of Strategic Reserves Target and Strategy

Mr. Dunlap also presented information relating to the Strategic Reserves target, which the Board sets every two years. The current overall target is \$179 million, however utilizing the same approach as in prior years, staff believes the new target should be \$204 million. This increase follows the rising cost of capital projects, as well as additional “buffer” in the Working Capital Reserve to deal with larger intra-year fluctuations in operating costs. Mr. Dunlap also presented that staff had received feedback from stakeholder groups that there was a desire to see the Working Capital Reserve broken out from the rest of strategic reserves in order to separate the “checking account” from the “rainy day fund”. He raised the topic to get Board input



on whether this should be considered as part of a future staff recommendation. Warren Tenney (AMWUA) provided comments to the Board that the inclusion of the Working Capital Reserve as part of the Strategic Reserves was confusing to his members and should be excluded from the Strategic Reserves. He also suggested staff bring forward a policy that outlined under what conditions the strategic reserves could be utilized and how they would be restored. Staff, including General Manager Ted Cooke, indicated that it was not administratively burdensome to break out the Working Capital Reserve from Strategic Reserves, but for the sake of transparency, staff would need to report on both funds, rather than simply continue to report on the remaining funds in the strategic reserve. Mr. Dunlap indicated that formulating a formal policy would take more time and ongoing discussions. He also indicated that the Board setting the Strategic Reserve target was the first step in setting tax rates, which will begin to be discussed in the coming months.

Discussion and Consideration of Action to Recommend that the Board Approve Supplemental Guidance to the CAWCD Rate Setting Policy Regarding the Collection of Fixed OM&R Costs for System Conservation

Chuck Cullom, Colorado River Programs Manager, reported out on the recent Stakeholder Roundtable on this topic, in which multiple options were presented for collecting Fixed O&M on water intentionally left in Lake Mead as part of System Conservation. The participants of the Roundtable included Tribal, M&I, and NGO representatives. The options considered were: The Water User creating the conservation pays; the funder pays; or the fixed O&M costs generated by system conservation are spread across all CAP water users. They were unanimous in their willingness to spread the Fixed OM&R rates across all users to help facilitate additional system conservation efforts. With this feedback in mind, staff recommended this guidance be approved as part of the CAWCD Rate Setting Policy. Geri Walker (Fort McDowell-Yavapai Nation) provided public comment that she would like to see more detail written into the guidance document and asked the Committee to hold sending a recommendation to the Board. Jessica Fox (AMWUA), indicated support for the staff recommendation but also expressed a desire for more detail. Staff added that they could look at adding more detail, but were intentional in the crafting of the language so as to not be overly prescriptive and allow for customers to innovate. By adopting this guidance, it allowed for existing contract/sub-contract language to dictate the process. Mr. Cullom also added that the United States had requested clarity on this item in the first quarter of 2020 so that it could serve as guidance in upcoming System Conservation agreements. Board Member Taylor asked if the Committee could forward the recommendation with the understanding that staff would work to improve clarifying language as an amendment at the Board Meeting. The Committee voted unanimously to recommend forwarding the supplemental guidance to the Board.

The agenda item relating to Power Updates was held until the March FAP Committee meeting.

FINANCE, AUDIT AND POWER COMMITTEE **REPORT**



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[3]



Agenda Number 5.b.i

CONTACT: Doug Dunlap
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ddunlap@cap-az.com

MEETING DATE: Thursday, March 5, 2020

AGENDA ITEM: Discussion and Consideration of Action to Approve Additional Spending Authority for Navajo Generating Station Decommissioning Costs - Dunlap

RECOMMENDATION: The Finance Audit and Power Committee recommends that the Board of Directors approve additional spending authority of \$25.7 million to record the additional liability related to the decommissioning of NGS and final reclamation costs of the Kayenta Mine.

FISCAL IMPLICATIONS: Yes

Impact on Budget:

Increase of \$25.7 million in General Fund other expenses

Additional spending authority requested: \$25.7 million

Impact on Reserves:

To be determined at a future date

Impact on Rates:

To be determined at a future date

LINKAGE TO STRATEGIC PLAN, POLICY, STATUTE OR GUIDING PRINCIPLE:

CAWCD 2016 Board of Directors Strategic Plan

- Finance: Effectively communicate financial issues to Board and stakeholders

PREVIOUS BOARD ACTION/ACTIVITY:

April 20, 2017	FAP Committee informed of need to record additional \$48.5 million in decommissioning expense
February 1, 2018	Board of Directors approved utilization of the Extraordinary Cost Reserves for decommissioning
April 5, 2018	Board of Directors approved \$41 million water storage tax reserves to be transferred to the decommissioning reserve
April 19, 2019	FAP Committee informed of additional \$49 million in decommissioning costs from recent studies
December 5, 2019	Board received an update on the Closure of NGS
January 23, 2020	FAP Committee received an update on the status of NGS Costs and Agreements
February 20, 2020	FAP Committee recommended that the Board approve additional spending authority

for costs related to decommissioning NGS and the Kayenta Mine

ISSUE SUMMARY/DESCRIPTION:

The Board has been provided periodic updates on the closure and decommissioning and related costs of the Navajo Generating Station (NGS) and the Kayenta Mine.

Previous estimates that had previously been provided by SRP have been recorded for a total of \$133.8 million. Funds for the same amount have also been dedicated for decommissioning by the CAWCD Board. These early estimates were at the low end of the closure cost estimates with some costs under review, particularly related to the Mine

The Mine settlement agreement has been finalized by all the related parties. Previously unsettled costs have been agreed to that have resulted in additional costs. The increase primarily relate to the now settled costs including settled tail costs and settled coal cost. In addition, there have been updates to the estimates for the decommissioning of NGS. The current estimate of the CAWCD portion of the costs result in an additional \$25.7 million, bringing the current CAWCD estimate to \$159.5 million. Through December, CAWCD has paid \$80.7 million of these costs. While the costs are the best estimates currently available, as is the case with large projects such as this one, costs will fluctuate as activities occur.

As previously reported, the Navajo Nation will retain certain structures that lowered some of the decommissioning costs. These assets include the railroad (except the catenary), lake pumps and certain maintenance buildings. Assets are anticipated to be sold for salvage value and may cause some variation in estimates. The Navajo Transmission System will remain in service as is.

Subsequent to recording the additional decommissioning liability, Staff are evaluating alternatives to fund the additional amount and return to the FAP Committee with funding options and a recommendation.

SUGGESTED MOTION:

I move that the Board of Directors approve additional spending authority of \$25.7 million to record the additional liability related to the decommissioning of NGS and final reclamation costs of the Kayenta Mine.

ATTACHMENTS:

None

ACTION BRIEF

BOARD OF DIRECTORS



Agenda Number 5.b.ii

CONTACT: Chuck Cullom Greg Adams
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ccullom@cap-az.com gadams@cap-az.com

MEETING DATE: Thursday, March 5, 2020

AGENDA ITEM: Discussion and Consideration of Action to Approve Supplemental Guidance to the CAWCD Rate Setting Policy Regarding the Collection of Fixed OM&R Costs for System Conservation - Cullom

RECOMMENDATION: Staff recommend that the Board approve supplemental guidance to the current CAWCD Rate Setting Policy regarding the collection of Fixed OM&R fees related to system conservation projects with CAP Project Water through 2026, per the attached schedule.

FISCAL IMPLICATIONS: Yes

Impact on Budget:

None

Additional spending authority requested: None

Impact on Reserves:

None

Impact on Rates:

Potential incremental increase to Fixed OM&R rates due to reduction in delivery of CAP Project Water from approved system conservation projects.

LINKAGE TO STRATEGIC PLAN, POLICY, STATUTE OR GUIDING PRINCIPLE:

Water Supply Reliability

PREVIOUS BOARD ACTION/ACTIVITY:

February 6, 2020 Discussion on Establishing a Board Policy on the collection of Fixed OM&R fees for system conservation projects in the CAP system

February 20, 2020 Discussion and action by the Finance, Audit and Power Committee recommending supplemental guidance to the CAWCD Rate Setting Policy for approval by the CAWCD Board

ISSUE SUMMARY/DESCRIPTION:

As part of the implementation of the Lower Basin Drought Contingency Plan and the Agreement Regarding Lower Basin Drought Contingency Plan Obligations, CAWCD have identified the need to develop a policy regarding the collection of Fixed OM&R costs relating to system conservation projects with CAP Project Water. CAWCD's definition is an intentional reduction in existing and historic beneficial use, through investment or incentives, with the purpose of providing a benefit to Colorado River system storage in Lake

Mead. To accommodate system conservation projects in the CAP system, and consistent with CAP water delivery contracts and CAWCD's contracts, the key considerations are as follows:

1. System conservation projects require an investment or incentive to cause a reduction in existing, historic beneficial use,
2. The CAP water user must order the conserved water, so that the conserved water is no longer available to cascade to junior priority pools, including the CAP Excess Pool,
3. CAWCD retains the right to remarket unused water in the CAP system. To facilitate system conservation, CAWCD must concur with the system conservation project and commit to forgo remarketing the conserved water,
4. CAWCD must collect Fixed OM&R costs, so forgoing remarketing of the conserved water will result in an incremental increase to Fixed OM&R rate paid by CAP rate payers.

In January 2020, CAWCD staff conducted a roundtable discussion to obtain input from CAP contractors and subcontractors. CAWCD staff outlined the key issues and framed three potential approaches: Water user pays the Fixed OM&R for system conservation, the funder pays the Fixed OM&R for system conservation, and all CAP rate payers contribute to system conservation by paying the incremental increase in Fixed OM&R due to system conservation. The stakeholders attending the roundtable represented tribes, M&I subcontractors and NGOs. They overwhelmingly supported accepting the incremental increase in Fixed OM&R due to system conservation projects with CAP Project Water. In addition, they requested opportunities to discuss and understand water supply and rate impacts related to system conservation projects in subsequent years.

In addition, at the Finance, Audit and Power Committee meeting on February 20, 2020, representatives from the Fort McDowell Yavapai Nation (FMYN) and Arizona Municipal Water Users Association requested clarification of the proposed supplemental guidance document. CAWCD staff met with FMYN staff and worked to add clarification to the supplemental guidance document.

Based on the forgoing, staff recommend supplemental guidance to the CAWCD Rate Setting Policy with the intent to provide advanced notice of system conservation projects, transparency in rate setting, provide consideration and potential action by CAWCD to forgo remarketing of appropriate system conservation projects, the incorporation of system conservation in the water ordering process, and the intentional reduction in CAP diversions to provide a water supply benefit to Lake Mead.

SUGGESTED MOTION:

I move that the Board approve supplemental guidance to the current CAWCD Rate Setting Policy regarding the collection of Fixed OM&R fees related to system conservation projects with CAP Project Water through 2026, per the attached schedule.

ATTACHMENTS:

1. Presentation
2. Supplemental Guidance to CAWCD Rate Setting Policy DRAFT

Collection of Fixed OM&R Costs on System Conservation Projects with CAP Supplies

March 5, 2020



Definition and Framing

- System Conservation with CAP Project Water is *the intentional reduction in existing and historic beneficial use, through investment or incentives, with the purpose of providing a benefit to the Colorado River system storage in Lake Mead.*
- The doctrine of beneficial use, the priority system, and our collective contracts and rights have not explicitly contemplated intentional conservation programs.
- CAWCD retains authority to remarket unused water regardless of origin. Therefore CAWCD's concurrence for system conservation is part of the process.



Nature of CAP Water Delivery Contracts/subcontracts

- CAP contracts/subcontracts are for the delivery of CAP Project Water
- Customers exercise their contract through the annual water ordering process
- Water that is unordered is available to the next priority pool for delivery
- Customers are required to pay Fixed OM&R charges on all water scheduled for delivery
- CAWCD determines the Fixed OM&R charge by dividing the estimated Fixed OM&R costs by the estimated amount of Project Water to be delivered



Policy Question

Who should pay the Fixed OM&R equivalency fee for System Conservation Projects with CAP Project Water?



Three Approaches

- **Contractor/subcontractor pays**
 - consistent with existing contract language
 - avoids increased costs all other CAP users
- **Funder pays**
 - avoids increased costs to all other CAP users
- **All CAP Users Contribute (overwhelming support at roundtable)**
 - CAP users will bear the incremental increased costs



CAP Users Contribute: Updated Supplemental Guidance

Annually through 2026 operations CAWCD will:

- **June Board Meeting** – request that those proposing system conservation projects for the coming year share their concepts with CAWCD
- **August Board Meeting** – staff present an overview of any proposed system conservation projects for the coming year
- **August CAWCD Annual Water Users Meeting** – staff will share analysis of rate and water supply impacts and seek water user input
- **September Board Meeting*** – Board considers action regarding proposed system conservation project through forgoing remarketing of conserved water
- **October** – Approved system conservation to be included in water orders
- **January** –CAWCD reduces its diversions to generate the approved system conservation

*CAWCD's commitment to forgo remarketing of system conservation water for BOR projects is governed by the LBDCP agreements.



Updated Supplemental Guidance

Based on comments at the 2/20 FAP and follow up discussions, staff:

- Added a preamble to the supplemental guidance to clarify the intent of the guidance
- Clarified the notice provision contemplated for the June Board Meeting as a request for those developing system conservation projects to share their intent with CAWCD, and noting that project proposals can come forward sooner than June
- Noted that the outcome is for all CAP rate payers through the incremental increase in Fixed OM&R due to decreased deliveries stemming from system conservation projects
- Outlined the goal of discussing proposed system conservation projects in the upcoming year and water user input of system conservation in subsequent years
- Updated the footnote to reflect the commitments made by CAWCD regarding system conservation projects in its agreement with the U.S. through the Agreement Regarding Lower Basin Drought Contingency Plan Obligations



Supplemental Guidance to CAWCD Rate-Setting Policy: Collection of Fixed OM&R for System Conservation Projects with CAP Project Water

As part of the implementation of the Lower Basin Drought Contingency Plan and related agreements, there is potential for new system conservation projects within the CAP system. This Supplemental Guidance is intended to provide transparency in Fixed OM&R rate-setting by providing a process consistent with current water ordering procedures to enable CAP rate payers to better understand water supply and Fixed OM&R rate impacts stemming from system conservation projects in the CAP system. In January 2020, CAWCD engaged in a public process to obtain input from CAP contractors and subcontractors regarding Fixed OM&R costs associated with system conservation projects. Consistent with the input received by CAP ratepayers, the Supplemental Guidance will facilitate the sharing of Fixed OM&R rate impacts among all CAP rate payers for system conservation projects in the CAP System through 2026. Each year through 2026 CAWCD will:

1. June CAWCD Board Meeting – the Board will request that entities considering new system conservation projects with CAP Project Water for the coming year share their intent with CAWCD staff.¹
2. August CAWCD Board Meeting - staff will present to the Board an overview of any proposed system conservation projects for the coming year.
3. August CAWCD Annual Water Users Meeting - staff will provide an analysis of the rate and water supply impacts of any proposed system conservation projects in the coming year, and seek water user input on system conservation projects for subsequent years.
4. September CAWCD Board Meeting – the Board will consider action² regarding the proposed system conservation project through forgoing its authorities to remarket conserved water recognizing that in so doing Fixed OM&R rates will incrementally increase to CAP rate payers.
5. October – Entities with approved system conservation projects involving CAP Project Water will submit water orders that include the quantity of water intended to be conserved through the system conservation project.
6. January – CAP water users with approved system conservation projects will reduce their CAP Project Water order to reflect the appropriate system conservation volume, CAWCD will provide notice to Reclamation that CAWCD is reducing its diversion schedule to accommodate the system conservation project, resulting in conservation to Lake Mead. CAWCD’s calculation of the Fixed OM&R Charge for that year will be adjusted to reflect the reduced water order associated with approved system conservation projects.

¹ Nothing in this Supplemental Guidance precludes entities from engaging with CAWCD staff prior to the June CAWCD Board Meeting.

² For System Conservation Projects that are a part of the United States’ commitments under the Lower Basin Drought Contingency Plan, CAWCD’s commitment to forego remarketing conserved water is as set forth in the Lower Basin Drought Contingency Plan Agreement (May 20, 2019) and the Agreement Regarding Lower Basin Drought Contingency Plan Obligations (May 20, 2019).



February 20, 2020 Meeting

Board Members present were Secretary Sharon Megdal, Karen Cesare, Jim Hartdegen, Pat Jacobs, Jennifer Martin and Heather Macre (by phone)

Consideration of Action to Approve the October 17, 2019 Minutes of CAGR D and Underground Storage Committee

Minutes were approved as written.

Report and Discussion on the Draft Mid-Plan Review Document Including Comments Received and Consideration of Action to Forward the Final Document to the Board

Laura Grignano, CAGR D, reported on CAGR D's 2019 draft Mid-Plan Review document. She explained that the document was the culmination of a year-long process initiated through the Committee in early 2019. Ms. Grignano provided an overview of the Mid-Plan contents, highlighted key points in each section and summarized the two comment letters received. Ms. Grignano added that based on comments received from the Arizona Municipal Water Users Association (AMWUA), CAGR D staff proposed minor modifications to Section 3.0 (Water Supplies). These included a modification to Table 3.1 and the top paragraph of page 18. Two blue cards were submitted. Robert Anderson, representing developers and homebuilders, spoke in support of staff's work on the Mid-Plan and acknowledged the health of CAGR D's finances, as evidenced by the recent historic water acquisition with the Gila River Indian Community. Jessica Fox, AMWUA, agreed with staff's summary of AMWUA's comments but encouraged discussions of long standing issues, such as how to secure long-term sustainable supplies and the location of replenishment, be held at the Committee and Board level as well as other venues such as the Post 2025 AMA Committee. The Committee passed a motion to forward the final Mid-Plan Review document to the Board for informational purposes, with compliments to staff on their work and minor modifications to the section 4.0 (Replenishment Reserve) and the document's cover.

Report on ADWR Public Processes and Pinal AMA Activities that could Impact CAGR D

Ms. Grignano and Andrew Craddock, CAGR D, reported on two public processes that CAGR D staff are currently participating in. Ms. Grignano gave a brief summary on the Post-2025 AMA Committee, a Committee of the Governor's Water Augmentation, Innovation and Conservation Council, by outlining its objectives, process and time-frame. She explained that the Post-2025 AMA Committee had identified a number of issues or challenges in the AMAs to further discuss and analyze and that two of those issues involved the CAGR D: 1) unlimited enrollment/uncertainty of future supplies and 2) hydrologic disconnect between recharge/recovery and pumping and replenishment. Ms. Grignano explained that staff will provide regular updates on this Committee's work. Mr. Craddock then gave a report on the Pinal AMA Stakeholders group chaired by Supervisor Miller. He explained that the group has identified two actionable items for this

CAGR D

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legislative session. One involves changing the definition of a Material Plat change, to assist updating older plats tied to a Certificate of Assured Water Supply (CAWS) either to maintain or reduce total water use. The other involves the process for reducing the total groundwater volume in existing Designations of AWS (DAWS). For years, the City of Eloy has been trying to modify its DAWS, to reduce its total groundwater demand, but has been unable due to the AMA's modeling issues. Mr. Craddock, added that these changes may result in a marginal increase in CAGR D's administrative workload and will reduce total Annual Membership Dues from the City of Eloy.

Update and Report on Status of 2020 Proposed Legislation that Could Impact the CAGR D

Jeff Gray, Legislative Affairs, gave an update on three bills that are currently moving through the House. H.B. 2677 modifies how CAGR D replenishment reserve targets are calculated and conforms to how they were calculated in the 2015 Plan of Operation. CAP's position on this bill is Support. Mr. Gray described the components of H.B. 2787, which originates from the Pinal County Water Augmentation Authority (PCWAA), and allows for a number of things, including the ability for county improvement districts to acquire water, the establishment of contract land in the Pinal AMA, the requirement that PCWAA charge a voluntary assessment against each parcel (CAGR D-like portion of bill) and the requirement that the Director of ADWR annually transfer at least \$200,000 to PCWAA from the withdrawal fees. Committee member Jacobs asked if this would increase competition with CAGR D for water supplies. Ms. Grignano answered that acquisition sources may likely be similar, but that any renewable supplies purchased in this new way would most likely offset the need for CAGR D replenishment by the same volume. Lastly, Mr. Gray described H.B. 2880 that modifies the process to renew or modify a DAWS as well as modifies the definition of a material plat change for a CAWS holder in all AMAs. He explained that H.B. 2787 and H.B. 2880 were dropped after the Public Policy Committee met last and added that CAP does not have a position on these bills. He added that both bills passed out of the House NREW Committee on February 18th.

Report on 2019 Member Land and Member Service Area Enrollment and Activation Activity

Ms. Grignano, CAGR D, provided an update on enrollment and activation activity in 2019. She reported that approximately 6,500 member land lots enrolled in the CAGR D last year, with the majority located in the Phoenix Active Management Area. She added that 2019 enrollment was lower than in 2018 and below the level of enrollment projected in the 2015 Plan of Operation. She added that Activation fees in 2019 were the highest in 10 years and stated that this activity occurred in both MSAs and MLs. There was a discussion about historic enrollment, including the rush to enroll in the Pinal AMA before the 2007 changes in the AWS rules. Mr. Anderson also acknowledged how the 2013 shift in GR D's revenue collection timeline has reduced speculative enrollment since that time. Chair Megdal requested historic activation data similar to the historic enrollment graphs shown.

CAGRD & UNDERGROUND STORAGE COMMITTEE REPORT



Report on Recovery Planning and Recovery Implementation

Angie Lohse, Resource Planning and Analysis, provided a brief report on the latest work out of the Recovery Planning Advisory Group (RPAG) as well as the feasibility work at Tonopah Desert Recharge Project. She described how independent recovery, i.e. recovery performed by the beneficiary could work and how there was a current bill in the legislature to allow the AWBA to directly transfer credits to subcontractors in a time of shortage. Ms. Lohse then provided a report on the recent geophysical results found at Tonopah Desert Recharge Project and the consultant's recommendations for next steps in identifying alternative recovery locations. These included drilling a total of four boreholes in various locations east, southeast and northeast of the site, including a few sites adjacent to the CAP canal.

Future Agenda Items

The CAGRD Committee will meet next on March 19. The agenda for March will include a presentation by Kathy Ferris and Sarah Porter, Morrison Institute's Kyl Center on Water Policy, on their recent Report on the CAGRD as well as a staff update on CAGRD's Conservation Program development. Chair Megdal added that April will start the rate setting process and mentioned that there will likely not be a Committee meeting in June.

Public Comment

There was no public comment

Contact for more information:

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INFORMATION BRIEF

BOARD OF DIRECTORS



Agenda Number 5.c.i

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MEETING DATE: Thursday, March 5, 2020

AGENDA ITEM: Report and Discussion on the Final CAGR D 2019 Mid-Plan Review Document (*Replenishment: CAGR D Management and Oversight*^) - Grignano

LINKAGE TO STRATEGIC PLAN, POLICY, STATUTE OR GUIDING PRINCIPLE:

CAGR D Management and Oversight: Review CAGR D status as compared to projections in the Plan of Operation.

PREVIOUS BOARD ACTION/ACTIVITY:

Sept 5, 2019 Mid-Plan Review Board Update

ISSUE SUMMARY/DESCRIPTION:

In February, 2019, CAGR D initiated a process to review its operations compared to projections in the 2015 Plan of Operation. This Mid-Plan Review is not required by law but rather a commitment by the CAWCD Board to provide enhanced reporting and increased transparency of CAGR D's operations. Through numerous reports and presentations to the CAGR D & Underground Storage Committee, CAGR D staff and technical experts reported on trends in Arizona's housing market, CAGR D enrollment and replenishment obligation as well as summarized CAGR D's current and projected water supplies, storage capacity and financial capability.

A Mid-Plan Review document was compiled at the end of the process and contains the information presented to the Committee. In December of 2019, a draft Mid-Plan document was released to the public for comment. Two comment letters were received and are enclosed in the packet. Based on comments received, minor modifications were proposed to Section 3 (Water Supplies). On February 20, the CAGR D & Underground Storage Committee voted to forward the Final Mid-Plan to the Board for informational purposes with the proposed modifications as well as minor changes to Section 4 (Replenishment Reserve) and to the cover. The final version of the 2019 Mid-Plan Review is attached.

In summary, the 2019 Mid-Plan Review demonstrates that CAGR D's 2015 Plan of Operation remains in good standing and complies with Arizona laws and CAGR D is well positioned to meet its replenishment obligations through the remainder of the Plan.

ATTACHMENTS:

1. Presentation
2. 2019 CAGRDR Mid-Plan Review
3. Comments - AMWUA
4. Response to AMWUA
5. Comments - Bucher
6. Letter of Support - Central and Southern Arizona Homebuilders

2019 Mid-Plan Review Highlights



- CAGRDR continues to fulfill its statutory duties
- Enrollment has trended lower than projections
- Obligations have remained relatively steady (approx. 30,000AF/Y)
- Current water portfolio is well positioned; reduced reliance on excess CAP water
- Plan to mitigate potential risks to NIA supplies from future shortages by accrual of LTSCs
- Replenishment Reserve accrual is on track
- Storage capacity remains sufficient to meet needs
- Based on current assets and projected revenues, CAGRDR is prepared to meet its statutory obligations

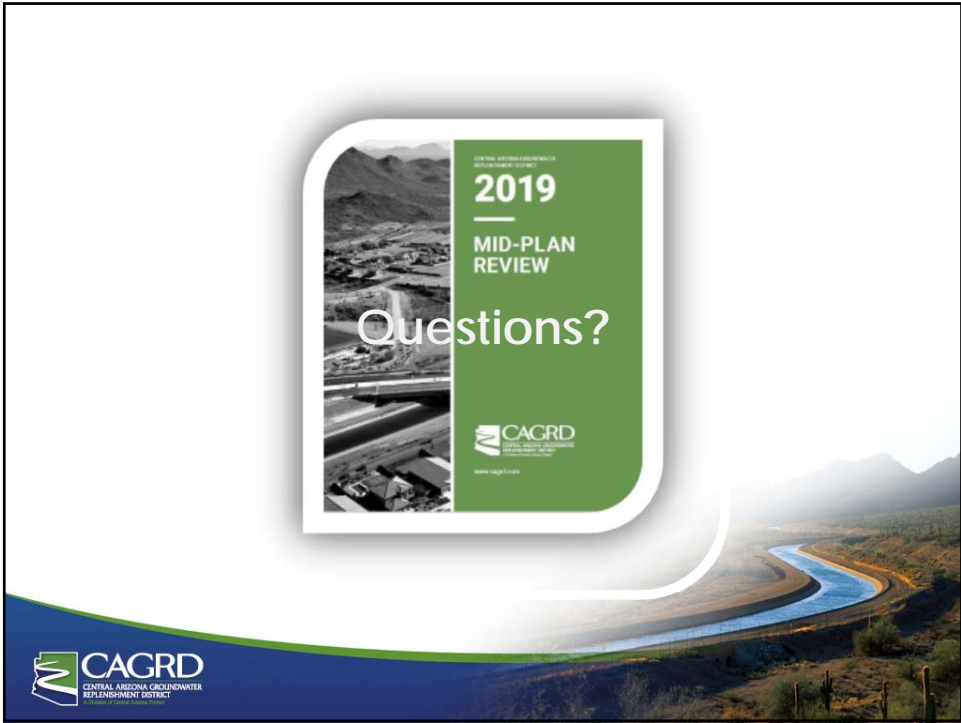


Mid-Plan Review Public Comments



- Public Comment Period 12/12/19 – 1/24/20
- A total of two submittals were received (included in packet)
 - Email from a concerned member of the public
 - AMWUA letter dated January 24, 2020
- Response to AMWUA's letter dated Feb 12 (included in packet)
- Minor modifications made to Mid-Plan based on comments and Feb 20th CAGRDR & US Committee feedback
- Final Mid-Plan Review in Board Packet







CENTRAL ARIZONA GROUNDWATER
REPLENISHMENT DISTRICT

2019

MID-PLAN REVIEW



www.cagrd.com

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Executive Summary

The Central Arizona Groundwater Replenishment District (CAGRDR), a special function of the Central Arizona Water Conservation District (CAWCD), was created in 1993 by the Arizona Legislature. CAGRDR members are landowners and water providers in Maricopa, Pima and Pinal counties without sufficient access to renewable water supplies. CAGRDR serves its members by replenishing the groundwater they pump, providing a way to comply with Arizona's Assured Water Supply Rules.

Pursuant to Arizona Law, every 10 years, CAGRDR must submit a Plan of Operation (Plan) to the Director of the Arizona Department of Water Resources (ADWR) for review and approval. The ADWR Director must determine whether the Plan is consistent with achieving the management goals of the Phoenix, Pinal and Tucson Active Management Areas (AMAs). Among other requirements, the Plan must demonstrate that CAGRDR has: 1) made reasonable estimates of its projected replenishment obligations for 100 years; 2) identified sufficient water supplies for current and potential members; 3) developed a replenishment reserve and target; and 4) identified sufficient storage capacity to be used for replenishment.

On August 5, 2015, the ADWR Director found the 2015 Plan to be consistent with achieving the management goals of all three AMAs. At the time of its submittal, the CAWCD Board of Directors committed to the development of a mid-Plan review that would provide a comprehensive look at the mid-term trends in CAGRDR operations, as well as an indication of where the trends may lead over the remainder of the 2015 Plan. This document serves as the Mid-Plan Review of the 2015 Plan. It compares projections of member enrollment and replenishment obligation made in the 2015 Plan to actuals, provides a current assessment of supplies and storage facilities available to CAGRDR to meet those obligations, and gives an update on CAGRDR's financial capability to meet its statutory responsibilities.

The 2015 Plan projected that by 2024, approximately 119,000 new Member Land (ML) housing units would be added to the existing 263,700 enrolled units, bringing the total to 382,700 enrolled ML units. But halfway through the planning period, less than 20% of the projected new enrollment has occurred, with total enrollment nearing 286,000 ML units. Projecting CAGRDR's future replenishment obligations for the 2015 Plan involved a number of assumptions about future population growth in the tri-county service area, the location of that growth (inside or outside areas reliant on CAGRDR) and the reliance of enrolled members on CAGRDR to offset their excess groundwater pumping. CAGRDR developed the 2015 Plan in 2013 and 2014, shortly after the end of the Great Recession when there was still a significant amount of uncertainty surrounding the timing and pace of the housing market return. Since the 2015 Plan was approved, growth has steadily returned, but at a lower rate than the official projections used in the planning assumptions. CAGRDR still has a large backlog of enrolled but unconstructed lots, though recent development has been working through some of that stock. Still, enrollment continues to be lower than projected in the 2015 Plan, which in turn, contributes to less obligation both now and moving into the second half of the 2015 Plan period.

Lower enrollment has and will continue to result in lower than anticipated future replenishment obligations for CAGRDR. The 2015 Plan included a 2020 projection of annual obligation by CAGRDR members of 44,800 acre-feet (AF), increasing to 86,900 AF by 2034. The actual 2018 annual obligation was less than 29,000 AF, significantly lower than 2015 Plan estimates. Additional factors identified as likely contributors to lower than projected obligation include members'

temporary avoidance of reporting excess groundwater by using groundwater allowances, long-term storage credits (LTSCs) and/or extinguishment credits and the continued groundwater availability constraints in the Pinal AMA, which limit new enrollment and associated obligation. However, CAGRDR remains on track to meet its current replenishment obligations well within the three-year statutory timeframe in which it must complete its obligations.

Historically, CAGRDR has relied heavily on excess CAP water to meet the replenishment obligations of its members. In the 2005 Plan of Operation, CAGRDR began to plan for a future in which it could no longer continue to rely solely on Excess CAP water to meet its obligations. The CAGRDR Water Supply Acquisition Program was established by the CAWCD Board action in 2012 with the goal of acquiring a diverse portfolio of water supplies through voluntary, market-based transactions with willing entities. In the 2015 Plan, CAGRDR identified a number of supplies, including CAP water, effluent, Colorado River water, LTSCs and imported groundwater, that it planned to use in the next 20 years, as well as potentially available supplies in the subsequent 80 years. The ADWR Director found these supply estimates sufficiently reasonable to meet the projected needs of current and future members.

Since the 2015 Plan was approved, CAGRDR has added additional supplies to its portfolio, including an acquisition of 33,185 AF per year for 25 years (through a combination of lease and exchange) from the Gila River Indian Community, and is well positioned to meet its replenishment obligations, as well as its replenishment reserve target, for the remainder of the 2015 Plan period. CAGRDR continues to plan for the potential risks that deep, prolonged shortages and increased future replenishment obligations could pose to current available supplies by focusing on firming existing supplies to increase resiliency and acquiring additional supplies to meet future obligations based on enrollment trends. On-river opposition to Colorado River mainstem transfers and the increasing cost of available water supplies may also have an impact on future CAGRDR acquisition activities.

Although there have been minor changes in storage capacity available to CAGRDR since the 2015 Plan was approved, there remains sufficient capacity to meet CAGRDR's replenishment obligation through 2034. CAGRDR has access to CAWCD-owned underground storage facilities (USFs) in the Phoenix and Tucson AMAs and has permits and/or water storage agreements with seven groundwater savings facilities (GSFs) across all three AMAs. Since the development of the 2015 Plan, CAGRDR has obtained additional water storage permits to store effluent at Liberty Utilities USF and CAP water at the Gila River Indian Community's Olberg Dam USF.

CAGRDR has a great deal of financial flexibility as economic and operational conditions change. The financial mechanisms in place have ensured CAGRDR's ability to meet its statutory obligations using funds collected exclusively from its members, and will continue to do so through the remaining 2015 Plan period and beyond. For example, in 2013, CAGRDR made a significant change in how it collected revenues by collecting earlier in the membership timeline. This adjustment spread costs out more equitably through time and amongst members, and moved some of the costs from the homeowner to the developer/homebuilder. In the remaining 2015 Plan period, CAGRDR will continue to evaluate alternative rate structures that are equitable and based on members' reliance on CAGRDR. Rates will continue to be established to ensure CAGRDR's financial ability to achieve its responsibilities.

1.0

Introduction

CAGRDR is required by law to submit a Plan of Operation for approval by the Director of the Arizona Department of Water Resources (ADWR) every 10 years. The current CAGRDR Plan of Operation (2015 Plan), covering the period from 2015 through 2024, was submitted to the ADWR Director on Dec. 29, 2014, after being developed from April 2013 through December 2014.

The development process included numerous Central Arizona Water Conservation District (CAWCD) Board and Committee meetings, stakeholder working group meetings and workshops. After ADWR review, public review and public hearings, the ADWR Director determined on Aug. 5, 2015 that the 2015 Plan, as submitted, was consistent with achieving the management goals of the Phoenix, Pinal and Tucson Active Management Areas (AMAs). The 2015 Plan describes the activities CAGRDR proposes to undertake in the Phoenix, Pinal and Tucson AMAs over the next 100 years to meet its replenishment obligations for existing and new members enrolled during the 2015 Plan period.

In addition to its mandatory annual reporting to ADWR, the CAWCD Board committed to enhanced annual reporting and directed staff to develop a Mid-Plan Review halfway through the 2015 Plan period. This Mid-Plan Review provides a comprehensive view of the mid-term trends in CAGRDR operations under the 2015 Plan and provides indications of where these trends may lead CAGRDR over the remaining years of the 2015 Plan.

In the year leading up to publication of this Mid-Plan Review, CAP staff gave presentations to the CAGRDR and Underground Storage Committee (Committee) describing the major findings from the report. The briefings were on CAGRDR activities and trends related to Enrollment, Obligation, Water Supplies, Replenishment Reserve, Storage Opportunities, and Financial Capability. Additionally, staff presented quarterly updates on enrollment and activation activity. Through this venue, the Committee and public were given an opportunity to ask questions or give feedback as the report was being drafted. This Mid-Plan Review addresses each of these same topics as individual chapters and provides additional detail on each.

2.0

Enrollment and Obligation

Becoming a CAGR Member is a voluntary, multi-step process that brings with it a number of benefits, as well as responsibilities. In turn, the characteristics of existing Members, along with the rate and type of new memberships brings significant responsibilities to CAGR itself. This section describes the CAGR enrollment and obligation activity since 2015 and how this compares to the projections made in the 2015 Plan.

2.1 Enrollment and De-enrollment Since 2015

Since 2015, the majority of new Member Land (ML) enrollment occurred in the Phoenix AMA (see **Figure 2.1.1**). A total of 21,748 lots enrolled in the Phoenix AMA from 2015 through 2019 YTD, with 58 percent in the West Valley (12,429 lots) and 42 percent in the East Valley (9,319 lots). The new enrollment brought with it a total projected demand of 13,775 AF per year (AF/yr) at full buildout. The Tucson AMA added very little new membership (102 lots) in the same period, with a projected demand of just 79 AF/yr. Only one new ML subdivision enrolled in the Pinal AMA, in 2018, with 151 lots and a projected demand of 64 AF/yr at buildout. Prior to this, there had been no ML enrollment from the Pinal AMA since 2011. Although recent annual ML enrollment increased markedly in 2018 and 2019, it is still far below the peak enrollment years before the Great Recession. See **Figure 2.1.1** full enrollment history inset.

In 2016, one new Member Service Area (MSA) enrolled, in the Pinal AMA. Known as Southwest Environmental Utilities, L.L.C., the MSA has an estimated projected demand of 1,973 AF/yr, though its Designation of Assured Water Supply (Designation) is still pending from ADWR. The MSA remains “inactive” in the CAGR until the Designation is approved.

Enrolling in CAGR

Any water provider or subdivision located in the Phoenix, Pinal or Tucson Active Management Area may voluntarily join CAGR, so long as it meets the State’s requirements, including access to a 100-year physical supply of groundwater.

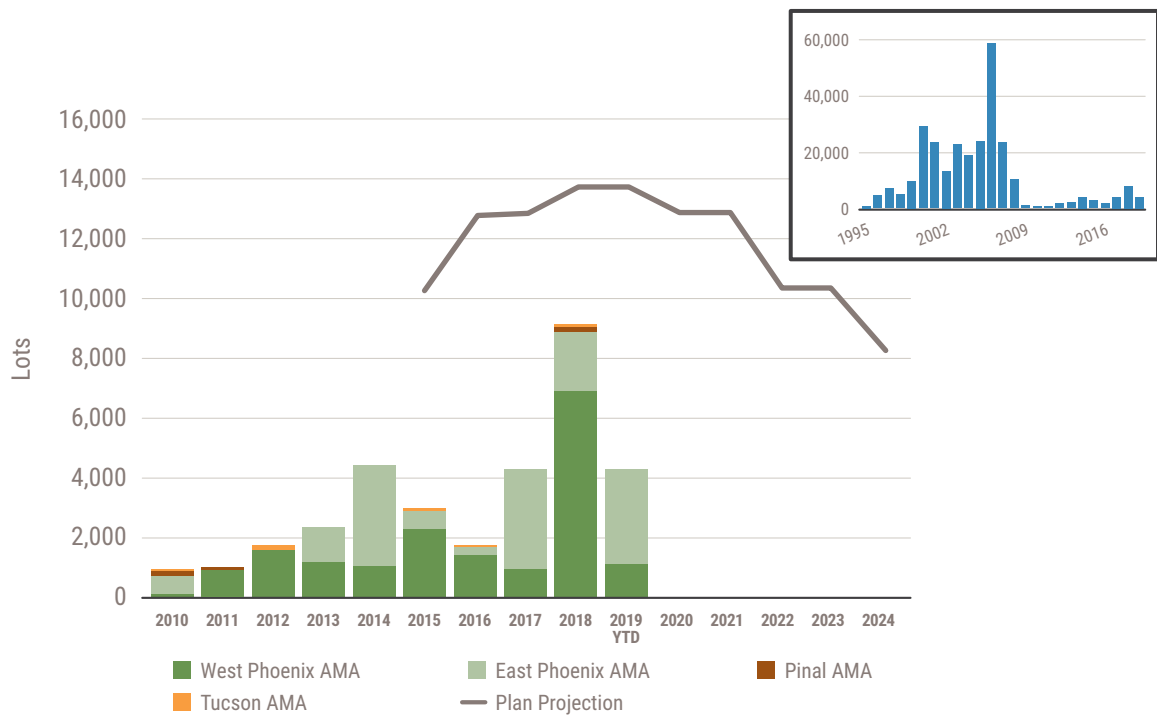
- A **Member Land (ML)** is an individual subdivision. An annual replenishment assessment is collected by the county treasurer from each individual parcel based on the amount of “excess groundwater” delivered to that parcel. Enrollment includes an irrevocable declaration of covenants, conditions and restrictions on the land, and an agreement between the water provider and the CAGR.
- A **Member Service Area (MSA)** is the water service area of a city, town or private water company. MSAs pay a replenishment assessment directly to CAGR according to the amount of excess groundwater delivered within their service areas.

On April 9, 2015, House Bill 2325 was signed into law allowing CAGRDR MLs to voluntarily de-enroll, subject to all of the following conditions: 1) the land cannot have been sold or leased to a retail purchaser or lessee; 2) no public report for the property has been issued; 3) if the lot or parcel boundaries have been recorded, the planning agency (e.g. county) has vacated them; 4) a declaration with the county has been recorded specifying that the property's CC&Rs have been revoked; 5) the agreement between CAGRDR and the municipal provider has been revoked; and 6) if a Certificate of Assured Water Supply has been issued for the property, ADWR has revoked the Certificate.

CAGRDR experienced its first de-enrollment activity in 2016, when two Phoenix AMA ML subdivisions representing 57 lots de-enrolled. In 2017, 20 Phoenix AMA ML subdivisions representing 646 lots de-enrolled, though portions of these areas were subsequently re-platted and re-enrolled. In 2018, five subdivisions representing 188 lots de-enrolled.

ML ENROLLMENT, AND 2015 PLAN PROJECTION

FIGURE 2.1.1



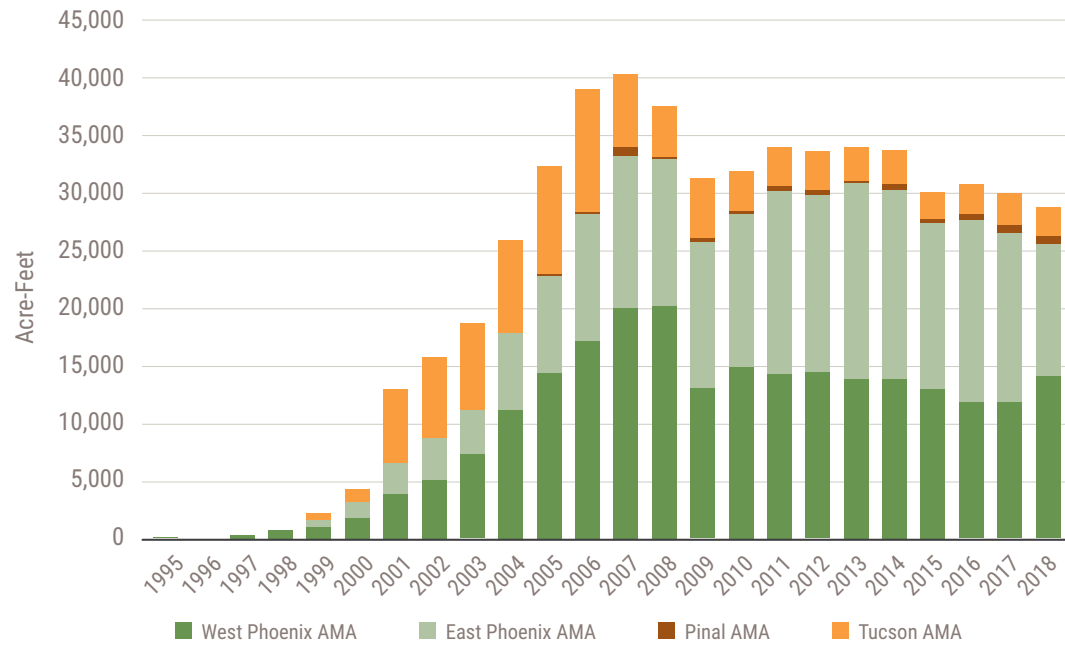
2.2 Replenishment obligation since 2015

As shown in **Figure 2.2.1**, CAGRDR's replenishment obligation rapidly increased through the early 2000s, but has remained under 35,000 acre-feet (AF) for more than a decade. The obligation has been concentrated in the Phoenix AMA, and essentially equally divided between the East and West Valley. The lower than anticipated obligation is a result of a number of factors, discussed below, and differs from both current and previous CAGRDR Plan projections, as well as common perceptions of the level of reliance on CAGRDR for groundwater replenishment.

By statute, CAGRDR has three years to complete the replenishment of reported use of excess groundwater. **Figure 2.2.2** shows the annual obligation incurred and the annual replenishment activity to satisfy that obligation. For example, the 2016 obligation was 30,992 AF. To satisfy that obligation, 4,884 AF was stored in 2016, 25,563 AF was stored in 2017, and the final 475 was stored in 2018. The figure also shows that a portion of the obligation incurred in 2017 and 2018 is yet to be satisfied. This remaining obligation will be satisfied in 2019.

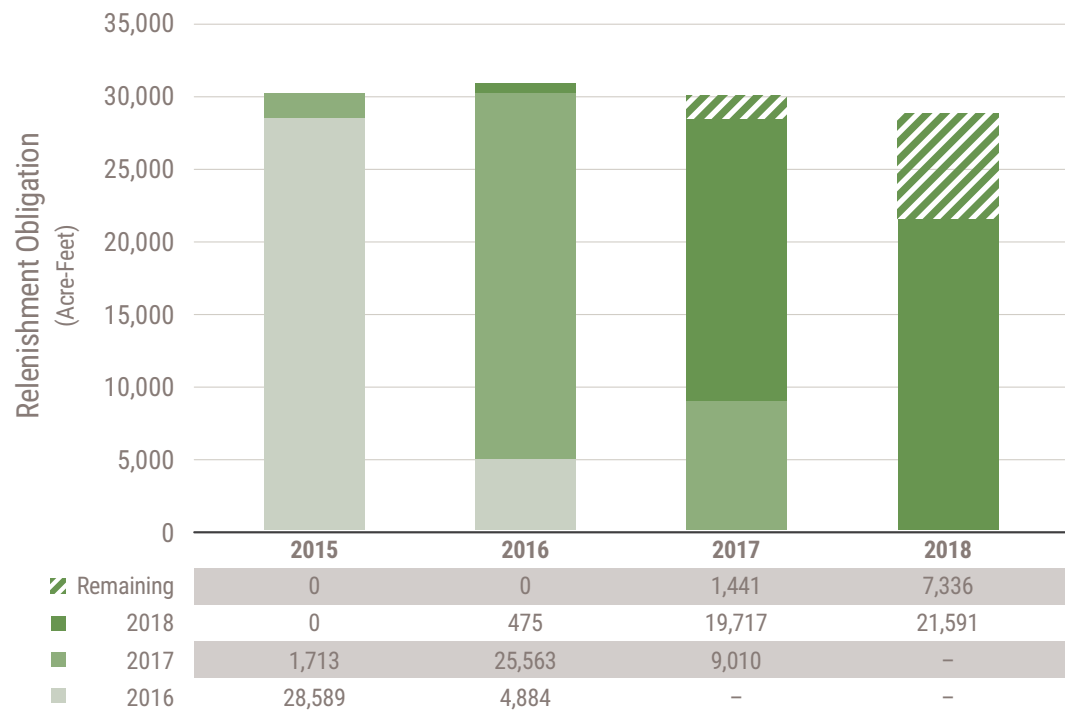
ANNUAL REPLENISHMENT OBLIGATION BY AMA

FIGURE 2.2.1



ANNUAL REPLENISHMENT OBLIGATION BY YEAR OF SATISFACTION

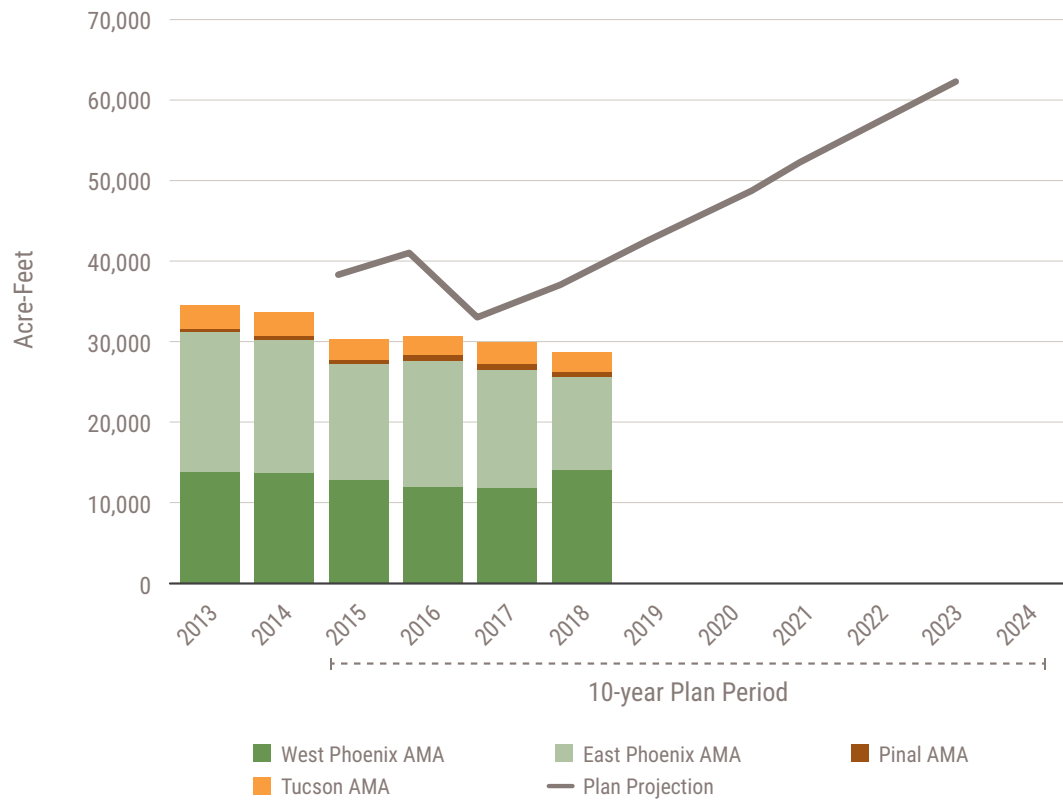
FIGURE 2.2.2



2.3 Comparison to 2015 plan projections

As a part of the 2015 Plan, State statute requires CAGRDR to develop a single long-range projection of replenishment obligation for current members and those anticipated to be enrolled during the 10-year Plan period (2015 – 2024). This is a complex task that takes into account the best data available. **Figure 2.3** shows the 10-year projection of obligation along with the actual annual obligation by AMA, midway through the 2015 Plan period.

ANNUAL REPLENISHMENT OBLIGATION, AND 2015 PLAN PROJECTION FIGURE 2.3



To account for the interplay of water supplies, demands and the regulatory system within the Phoenix, Pinal and Tucson AMAs, CAP staff developed a computer model for the CAP service area known as CAP:SAM. The model makes individualized projections for more than 100 water providers, irrigation districts, tribes and others, and tracks 16 legal and physical water types. The CAP:SAM model is capable of simulating a wide range of future conditions, but to facilitate ADWR's regulatory approval, and to avoid the impression that future obligation was being underestimated, many of the assumptions used for the 2015 Plan were intentionally conservative.

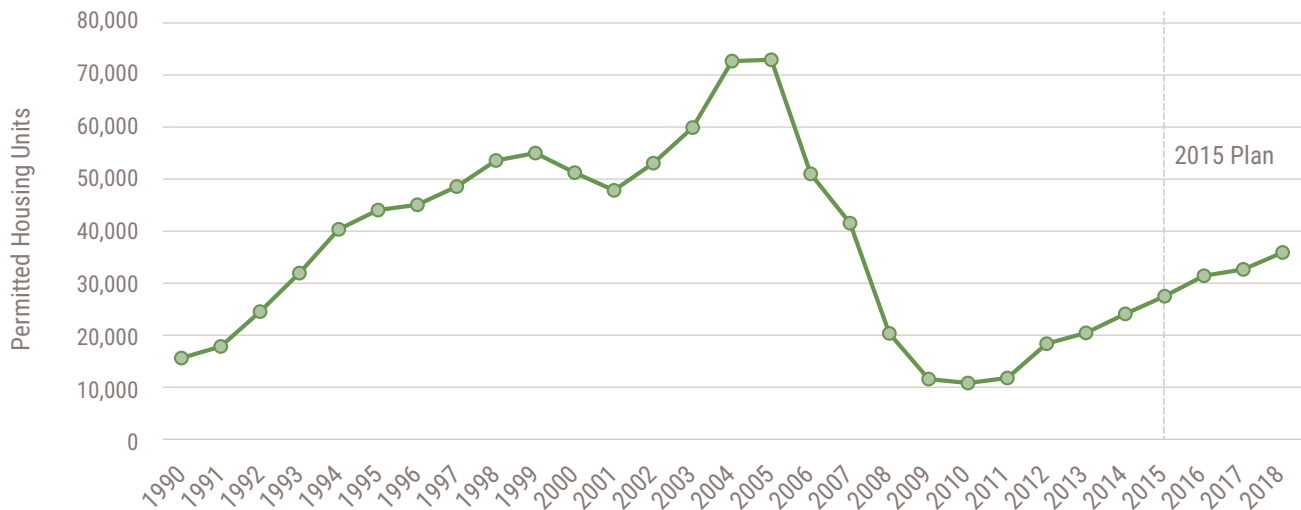
The subsections below address each of the factors that affected the difference between the projections of enrollment and obligation in the 2015 Plan, as well as the actual activity, beginning with the most significant factor.

2.3.1 Rate of growth

The single largest factor affecting CAGR’s future enrollment and obligation is the rate of population and housing growth. The annual number of housing permits in **Figure 2.3.1** shows the dramatic rise and subsequent collapse from the Great Recession. CAGR developed the 2015 Plan projections in 2013 and 2014 when there was still a significant amount of uncertainty following the Great Recession surrounding the timing and magnitude of future housing activity.

ANNUAL HOUSING PERMITS IN MARICOPA, PINAL AND PIMA COUNTIES

FIGURE 2.3.1

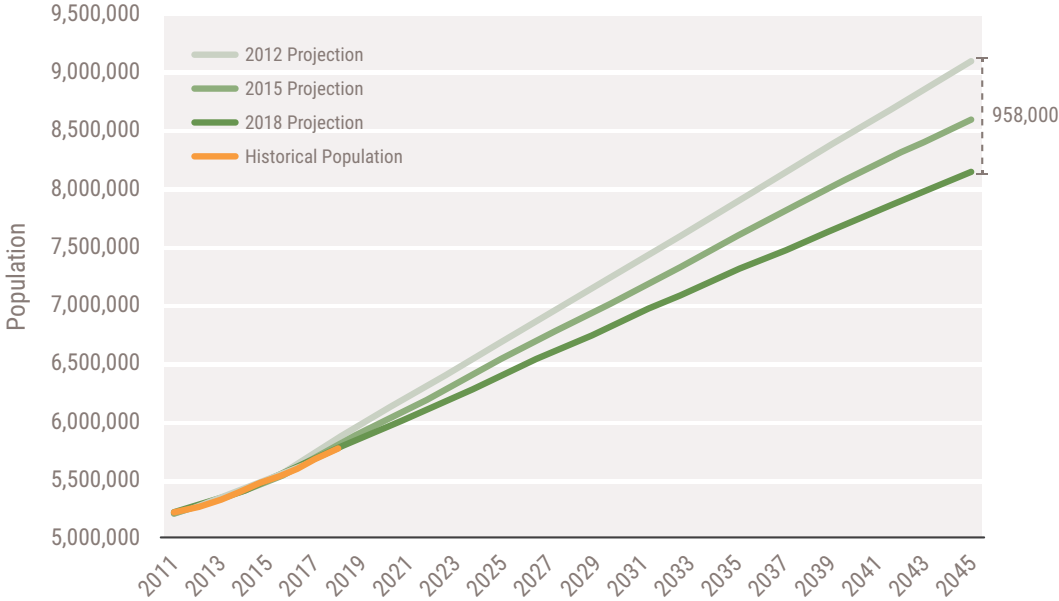


The Arizona Department of Administration (ADOA) develops official projections of population and housing units (low/mid/high series) by county that are in wide use for regional planning. The mid-series projections were used for the 2015 Plan, calibrated to the decennial census. Since the time the 2015 Plan was approved, growth has steadily returned, but at a lower rate than the official projections. As **Figures 2.3.2** and **2.3.3** indicate, these official projections have been revised downward twice since the 2015 Plan was developed.

OFFICIAL ADOA PROJECTIONS OF TOTAL POPULATION

“Mid Series”; Maricopa, Pinal and Pima Counties

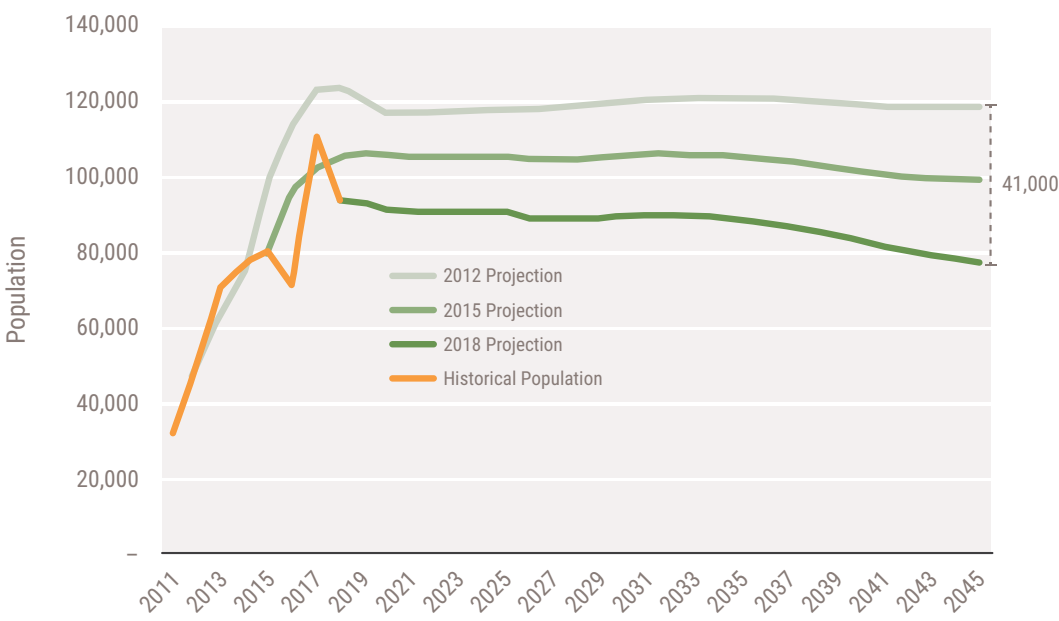
FIGURE 2.3.2



OFFICIAL ADOA PROJECTIONS OF ANNUAL POPULATION

“Mid Series”; Maricopa, Pinal and Pima Counties

FIGURE 2.3.3

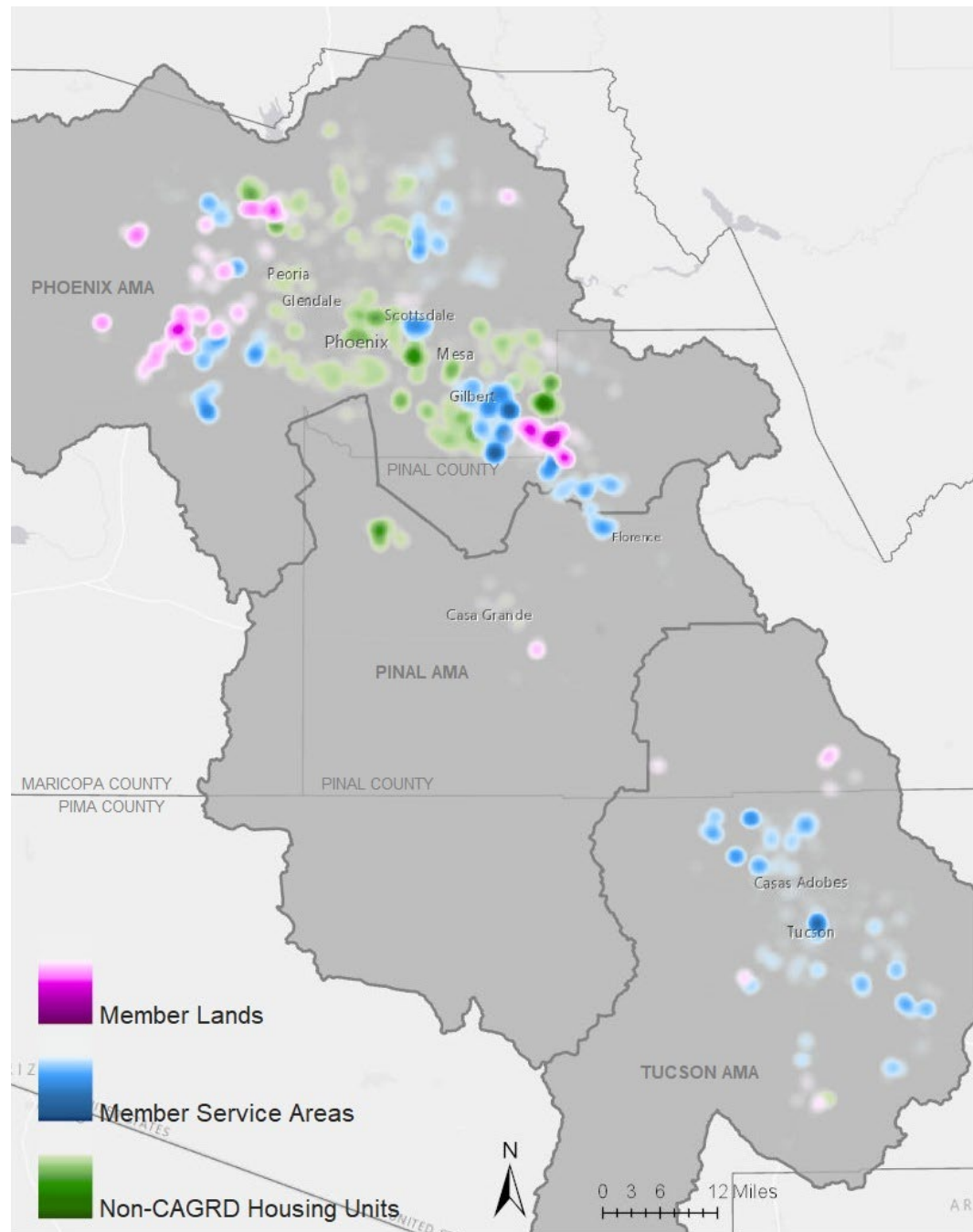


2.3.2 Location of growth

The location of growth was one of the more complex but important aspects of the analysis required in the development of the 2015 Plan. Where a new housing unit is constructed has large implications for the CAGR, in terms of whether it will be served by a provider designated without CAGR, an undesignated provider serving it as part of an ML, or a current or future MSA.

DENSITY OF HOUSING UNITS CONSTRUCTED SINCE 2015, BY RELATIONSHIP TO CAGR

FIGURE 2.3.4



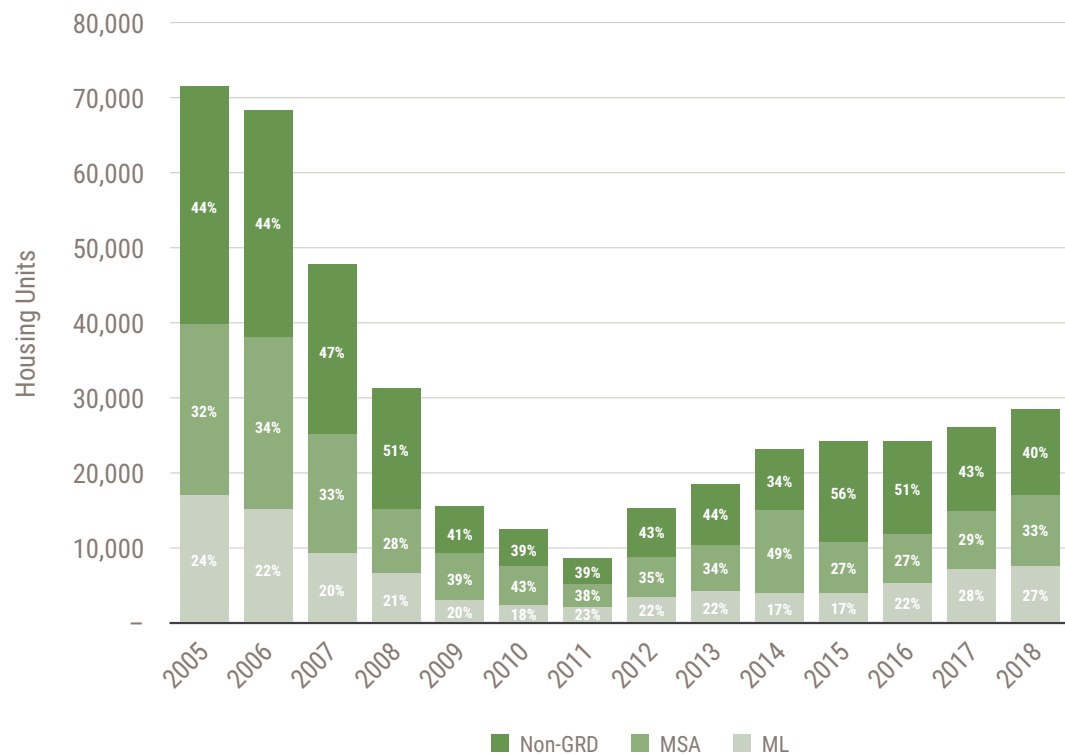
As part of their transportation and regional planning roles, the local Associations of Governments (Maricopa Association of Governments and Pima Association of Governments) develop officially-vetted spatial projections, taking into consideration factors such as zoning, proximity to existing infrastructure, and planned development projects. In general, the models used to generate these patterns of growth show a gradual outward expansion of the urban area. The models are also tied to the State’s official growth rates by county.

The spatial models are tied to the official rates of growth, but when growth is slower than projected, it also forestalls some of the expansion into the outer areas. As a result, the slower growth compounds the over-projection of housing units in the exurban areas, where CAGR members, particularly MLs, are concentrated.

The map of the service area’s recent growth (**Figure 2.3.4**) shows there has been a mixture of housing activity, including a significant amount of urban infill, along with more traditional suburban growth and the beginnings of true outward expansion. Through time, that outward expansion is expected to play a larger role in development patterns as available land is constrained and housing is less affordable in the urban core. That trend is reflected in the housing construction data in **Figure 2.3.5**, with the uptick in the percent of ML homes in the last few years.

HOUSING CONSTRUCTION, BY RELATIONSHIP TO CAGR

FIGURE 2.3.5



Housing Market Focus

CAGR D monitors greater economic and housing trends to understand how enrollment and replenishment obligations might progress over time. The Homebuilders Association of Central Arizona, in partnership with Elliott D. Pollack & Company, provides periodic overviews on the Arizona economic outlook and housing market. CAGR D also received housing and population projections from the Economic and Business Research Center at the University of Arizona. The following update is based on information received from representatives from both the Homebuilders Association of Central Arizona and the University of Arizona as of May 2019.

ECONOMIC OUTLOOK

The two biggest indicators of Arizona's housing demand are job growth and population migration. Arizona was 6th in 2018 and 5th in 2017 for job growth. The greater Phoenix area is ranked 4th in the top 10 growing metro areas by percentage job growth. Population growth in Phoenix has been 1.4% annually from 2009-2018. Projections show an estimated 1.8% growth in 2020 and 1.7% in 2025. The housing model used at the Economic and Business Research Center predicts that Arizona's population growth will stabilize around 100,000 new residents per year which equates to about 43,000 net new housing permits (assuming 2.5 persons per new housing permit). This is well below the pre-recession peak, but not particularly low. Pre-recession era growth was closer to 3% and crashed during the housing bubble collapse. The rate of growth over the next 10 to 20 years is expected to be lower than what Arizona has experienced historically, indicating that economic recovery and demand for housing is recovering but also lower than expected.

HOUSING MARKET TRENDS

The greater Phoenix area homebuilding market has been strengthening in recent years, but faces some significant supply and demand constraints. On the supply side, the cost of buildable lots and construction costs are increasing. Limited labor supply is also causing longer build times. On the demand side, housing purchases are sensitive to rising mortgage interest rates.

Despite these constraints, pent up demand for housing has led to a strong single family housing market. This is especially true in the entry-level housing sector that the millennial generation, ages 23-38, is entering. Indeed, the millennial generation is expected to drive Arizona housing demand in the next 10 years.

The millennial homebuyer often earns in the 60-120% of median household income and aims to purchase an affordable entry-level home that is 20-30% of their income. This translates to strong demand for houses priced at \$180,000 on the low-end and \$280,000- \$380,000 on the higher-end. These houses can vary from 1,500 square feet to 2,800 square feet and tend to sell quickly. Thus, Arizona homebuilders have seen that demand is high for correctly priced housing.

There may be some affordability issues as interest rates increase, but even combined with the supply- and demand-side constraints, the five-year outlook is positive. Housing permits in Central Arizona have steadily increased year-over-year since 2015 from approximately 15,000 permits to approximately 22,400 in 2018.

Source: Kamps, Spencer. "Current Trends in Home Building." CAGR D and Underground Storage Committee, 16 May 2019, Central Arizona Project, Phoenix, AZ. Guest Presentation, and; Hammond, George. "Arizona's Economy: Still Strong After All These Years." CAGR D and Underground Storage Committee, 20 June 2019, Central Arizona Project, Phoenix, AZ. Guest Presentation.

2.3.3 Reallocation of CAP NIA priority water

In January 2014, ADWR issued its “Recommendation for Reallocation of Non-Indian Agricultural Priority Central Arizona Project Water” pursuant to Section 104(a)(2)(C)(i)(III) of the Arizona Water Settlements Act of 2004. The 2015 Plan included an assumption that the Bureau of Reclamation (BOR) would approve ADWR’s recommended reallocation, and that the recipients could use the supply beginning in 2017. The recommendation includes several water providers who serve CAGRDL MLs. As such, the availability of an alternative supply to groundwater would have lowered their CAGRDL obligation in 2017 and beyond. The magnitude of reduction to obligation depends on supply and demand factors unique to each provider, but the NIA reallocation was projected to reduce the 2017 total annual obligation by approximately 8,000 acre-feet.

The NIA reallocation has not yet been finalized, so the lowering effect on obligation has not occurred. However, when it does occur the initial impact is likely to be less pronounced than projected because of the other factors that have resulted in a lower overall demand.

2.3.4 Change in excess groundwater reporting

MSAs and water providers serving MLs have some discretion regarding the amount of Excess Groundwater they report, particularly for MSAs and MLs that joined CAGRDL prior to Jan. 1, 2004. Up until 2015, pre-2004 CAGRDL members had minimum Excess Groundwater reporting requirements that for most members ramped up to two-thirds of the total groundwater delivered. Beginning in 2015, the minimum reporting requirement for pre-2004 members became zero.

When developing the 2015 Plan, the CAP:SAM modeling assumed that pre-2004 members would be conservative in their use of the Groundwater Allowances by continuing to report at least two-thirds of their groundwater use as Excess Groundwater. While some providers did continue to report the two-thirds or greater, many ML water providers reported zero or very little Excess Groundwater and relied heavily on the ML Groundwater Allowances instead. The impact on reported CAGRDL annual obligation was as follows:

2015	2016	2017	2018
4,655	5,376	7,354	9,551

In other words, in 2018, the obligation reported to CAGRDL would have been 9,551 AF greater if water providers continued to report the two-thirds for pre-2004 subdivisions. With recent total CAGRDL obligation hovering around 30,000 AF/yr, this represents a significant portion of the difference between the projected and actual obligation.

In general, this reporting strategy accelerates the point in time when a ML’s Groundwater Allowance will run out and therefore, any reduction in reported obligation may be temporary. However, some providers, like the Town of Queen Creek, have begun acquiring Extinguishment Credits and Effluent Credits to use in lieu of Excess Groundwater, enabling their ML customers to avoid paying CAGRDL assessments even after the Groundwater Allowances are exhausted. In the case of Queen Creek, the Town has made public its long-term plans to obtain a Designation of Assured Water Supply with its own supplies, eliminating future reliance on CAGRDL.

2.3.5 New versus existing members

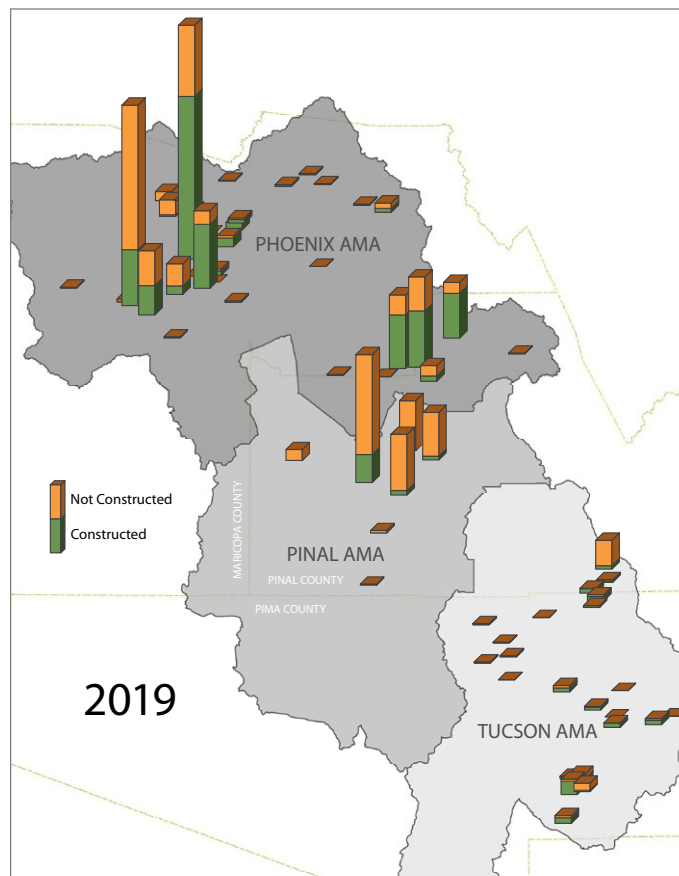
During the 2015 Plan development, it was necessary to make assumptions about how much of the projected ML construction during the 2015 Plan period would occur within MLs that had already enrolled but were not yet built out, versus those that would newly enroll.

The CAP:SAM model addressed this by using ratios of construction by enrollment period that account for the time delays between enrollment and construction. Those ratios change through time. Initially, most of the construction is associated with previously enrolled lots. The proportion attributed to the new members increases through the 10-year Plan period and then the proportion attributed to the current Plan tapers off over several decades.

The premise behind these ratios has tracked relatively well with activity since 2015. As anticipated, most ML construction has occurred in previously enrolled subdivisions rather than within new members enrolled under the 2015 Plan. However, since overall growth has been less than projected, the transition to higher rates of new enrollment and construction on new MLs has been delayed. The delay in transition contributes to the large overestimate of enrollment in the first half of the 2015 Plan and means there is still a large inventory of enrolled, but unconstructed, ML lots. **Figure 2.3.6** shows constructed vs. unconstructed ML lots by geographic area. Predominately located in the Pinal AMA and the West Valley of the Phoenix AMA, unconstructed lots total approximately 140,000 through 2019.

CONSTRUCTED VS. UNCONSTRUCTED ML LOTS, BY WATER PROVIDER

FIGURE 2.3.6

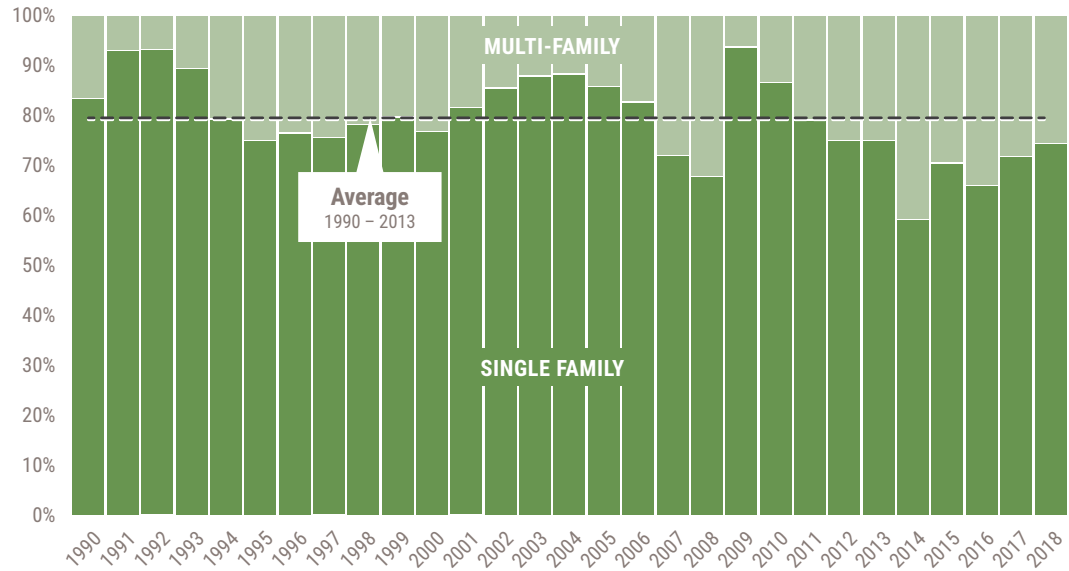


2.3.6 Single versus multi-family housing

The composition of housing stock also influences the ultimate water demand and potential reliance on CAGR. For the period of time covered by the 2015 Plan, CAGR assumed recent single-family trends would be consistent with long-term averages. However, since 2015 there was a higher ratio of multi-family to single-family homes as urban redevelopment efforts have intensified and housing affordability has affected the market (see **Figure 2.4.7**). Most of that multi-family construction has occurred in areas served by water providers with no relationship to CAGR or in CAGR MSAs with limited reliance on CAGR replenishment. However, in areas with CAGR reliance, an increase in the proportion of multi-family housing will generally result in lower average water use, accelerating the observed declines in usage.

PERCENTAGE OF SINGLE FAMILY AND MULTI-FAMILY RESIDENTIAL HOUSING UNITS – MARICOPA, PINAL & PIMA COUNTIES

FIGURE 2.4.7



Source: Census C-40 data, accessed through UofA Economic and Business Research Center

2.3.7 Conversion of member lands to member service areas

In the CAP:SAM modeling work, CAGR made an assumption that the City of Buckeye would receive its Designation of Assured Water Supply (Designation) from ADWR and become a CAGR MSA in 2015. That would mean that all the ML and pre-1995 subdivisions in its service area would become part of the new MSA. That conversion in membership would have the effect of increasing reliance on CAGR over the 10-year Plan period by about 1,270 AF/yr. Since its Designation process is still underway, CAGR's obligation is reduced, compared to projections, until the Designation is issued and the City transitions to an MSA.

2.3.8 Pinal AMA groundwater availability

The 2015 Plan projection included additional obligation in the Pinal AMA related to new growth and development that was anticipated in the region. But there are ongoing difficulties with satisfying the Assured Water Supply demonstration of physical availability of groundwater in the AMA, which has delayed the issuance of Analyses and Certificates of Assured Water Supply. This has the effect of halting CAGRDR enrollment in the AMA and it will continue to reduce obligation in the Pinal AMA, at least temporarily.

2.3.9 Wheeling & recovery of LTSCs by ML HOAs

In 2015, third-party entities began marketing Long-Term Storage Credits (LTSCs) to homeowners associations (HOAs) within CAGRDR MLs as an alternative to paying CAGRDR assessments. The practice involves individual ML property owners, such as an HOA: 1) obtaining a recovery well permit from ADWR for one of the ML water provider's wells; 2) purchasing LTSCs from a third-party; and, 3) entering into an agreement whereby the water provider would recover the LTSCs on behalf of the property owner and "wheel" the recovered water in place of groundwater that would otherwise be delivered to the property. The recovered LTSCs would be used to reduce or eliminate the property's replenishment obligation and thereby reduce the assessment for that year. To date, though, this practice has occurred in only a few MLs, resulting in a relatively small reduction in CAGRDR obligation (about 580 AF/yr in 2017 and 2018).

2.4 Enrollment and obligation summary

Growth in the service area has steadily returned in the past five years, but at a lower than projected rate. New ML enrollment has surpassed 22,000 lots in that time, far less than the 63,600 lots projected to enroll from 2015 through 2019. And low enrollment relative to the 2015 Plan projection, combined with factors like the change in excess groundwater reporting requirements, or MLs' use of alternative supplies, has and will continue to result in much lower replenishment obligation. The actual annual replenishment obligation has stayed well below 35,000 AF for the past decade, even before the start of the 2015 Plan period. Despite the challenges associated with projecting future obligations, CAGRDR remains on track to satisfy its current replenishment obligations well within the three-year statutory timeframe in which it must complete its obligations.

BOTTOM LINE

Since 2015, CAGRDR enrollment and obligation are lower than the 2015 Plan projections. This is a result of a set of factors including lower than projected growth, differences in the type and location of growth, and changes in member reporting practices. While some of these reductions are temporary, lower enrollment will reduce the overall obligation for CAGRDR during the remainder of the 2015 Plan.

3.0

Water Supplies

The 2015 Plan included a description of the CAGRDR Water Supply portfolio and listed water supplies available to “the conservation district for groundwater replenishment purposes” during “the 20 calendar years following submission of the plan” and “during the subsequent 80 calendar years.” In 2015 CAGRDR had sufficient water supplies within its portfolio to meet current obligations, but because some of those supplies were still awaiting final authorization for use, Excess CAP Water remained an important component of the water supply used for replenishment. This section describes how CAGRDR has completed additional water supply acquisitions since the 2015 Plan was developed to reduce reliance on Excess CAP Water and includes a brief discussion of the need to acquire additional supplies in the future.

3.1 Current water supply portfolio

At the time the 2015 Plan was developed and approved, CAGRDR had a water supply portfolio of 31,081 AF/yr of long-term supplies, plus access to approximately 545,000 LTSCs that could be represented as an annual supply of 5,450 AF/yr for 100 years. The approximate 36,000 AF annual supply was more than sufficient to meet the annual replenishment obligation in 2015 of 30,400 AF/yr. However, more than half of that supply (18,185 AF of NIA Priority CAP water through the 2014 reallocation and 2,500 AF of NIA water leased from the White Mountain Apache Tribe (WMAT)), which was anticipated to be available for use by 2017, has not yet been made available to CAGRDR as it is awaiting final approval from BOR. This has meant that during much of the 2015 Plan period, the available long-term supplies were less than obligations and CAGRDR remained reliant on Excess Water.

Between 2015 and 2019, CAGRDR acquired additional water supplies that will reduce reliance on Excess Water during normal water supply years beginning in 2020. During those years CAGRDR acquired 700,000 AF of LTSCs in the three AMA CAP service areas. CAGRDR also completed an agreement with the Gila River Indian Community in early 2019 that will provide CAGRDR with 15,000 AF/yr. of Indian Priority CAP water and 18,185 AF/yr. of NIA Priority CAP water for 25 years as part of a combined water exchange and lease agreement. This agreement is described in more detail below.

The recently completed Drought Contingency Plan (DCP) does present added challenges to CAGRDR operations through its implementation of deeper mandatory CAP water delivery cuts at specified elevations of Lake Mead. The initial drought reductions (Tier 0) have resulted in the loss of Excess CAP water for 2020. Future reductions at lower elevations of Lake Mead will result in reduced delivery of NIA Priority CAP water, which makes up a large portion of the CAGRDR water supply portfolio. The NIA water leased from GRIC is expected to be available in 2020 and 2021, but could be reduced by shortage in subsequent years. Much of this water, however, will be mitigated through agreements under Arizona’s implementation of DCP. The WMAT leased water will become available after final implementation of the WMAT settlement agreement and the reallocated NIA water will be available after the Department of Interior publishes its final recommendation in the Federal Register. There is no firm date for completion of either of those actions.

As a result of the water supply acquisitions completed in the past five years, CAGR D's water supply portfolio now totals more than 52,000 AF/yr without the NIA supplies awaiting authorization and nearly 73,000 AF/yr if those supplies become available (Table 3.1). At the same time, CAGR D replenishment obligations have trended less than projected in the 2015 Plan (see Section 2.4). Of those totals, 33,185 AF/yr is available until 2044 under the terms of the lease/exchange agreements with GRIC. The remaining supplies are either permanent or available for 100 years (or annualized over 100 years in the case of LTSCs).

Overall, the water supply outlook for CAGR D is optimistic for the remainder of the 2015 Plan period. There are, however, issues that CAGR D will continue to closely monitor, such as: the impact of deep, prolonged shortages on NIA priority CAP water in the portfolio, and; whether a resurgence of growth in the replenishment obligation could cut into CAGR D's water supply portfolio. These instances could require temporary use of LTSCs, including possibly the Replenishment Reserve.

SUMMARY OF CURRENT CAGR D WATER SUPPLY PORTFOLIO

TABLE 3.1

SUPPLY CLASS	VOLUME (AF)	AVAILABILITY	DESCRIPTION
CAP M&I	8,311	Annually	Permanent entitlement* potential reduction under Tier 3 shortage
CAP Indian (GRIC)	15,000	Annually from 2020 to 2044	25 year exchange; potential reduction under Tier 3 shortage
CAP NIA (GRIC)	18,185	Annually from 2020 to 2044	25 year lease, subject to shortage reduction
Effluent (Liberty)	2,400	Annually, began 2017	100 year lease
CAP NIA (WMAT)	2,500	Annually from 2024	100 year lease, awaiting final authorization; subject to shortage
CAP NIA	18,185	Annually from 2024	Permanent, awaiting final authorization; subject to shortage
TOTAL:	43,896	(currently available) / 64,581 (including future supplies awaiting final authorization)	
Long-term Storage Credits (current)	427,000	As needed	Currently in CAGR D Subaccount** (as of end of 2018); equivalent to 4,270 AF/yr for 100 years
Long-term Storage Credits (future)	390,000	2019-2114	To be acquired under existing purchase agreements; equivalent to 3,900 AF/yr for 100 years
TOTAL (with current and future credits; annualized)	52,066	(currently available) / 72,751 (including future supplies awaiting final authorization)	

* The entitlement volume is expected to be reduced due to an expected future transfer to the City of Peoria after their acquisition of New River Utility Company. New River Utility Co. had previously assigned their CAP M&I water to CAWCD for CAGR D use.

** Excludes 375,000 LTSCs acquired from GRWS which will be exchanged for GRIC CAP Indian Priority water.

3.2 Available water supplies

The potential risks from future shortages and increased obligation can also be mitigated in the same way that the 2015 Plan suggested that the risk of losing Excess Water could be mitigated – by identifying other water supplies potentially available for acquisition by CAGRD. These water supplies include CAP entitlements, LTSCs, effluent, Colorado River entitlements and imported groundwater. CAGRD provided a summary of these supplies in the 2015 Plan and provided a range of both a low estimate of nearly 500,000 AF potentially available for acquisition by CAGRD over the period 2015 to 2114 and a high estimate of nearly 1 million AF.

In ADWR's "Decision and Order Determining that Plan of Operation is Consistent With Achieving the Management Goal of the Phoenix, Pinal, and Tucson Active Management Areas" (D&O), issued Aug. 5, 2015, ADWR found it reasonable to assume that a minimum total of 372,500 AF/yr of combined LTSCs, effluent, CAP entitlements, and Colorado River entitlements is potentially available for purposes of meeting its projected replenishment obligations. This volume is well in excess of the projected replenishment obligation for current and projected members of 86,900 AF/yr by 2034 and 113,000 AF/yr by 2114.

Additionally, ADWR determined in the D&O that Colorado River supplies could not be considered available for the 20 years after approval of the 2015 Plan because a standard form of wheeling contract had not yet been approved for transport of these supplies into the AMAs. The applicable standard form wheeling contract was completed in 2017 through the development and approval of the System Use Agreement (SUA) between CAWCD and BOR. Implementation of the SUA is still on-going, including the development of the necessary water quality standards and the system improvement projects to move non-project water through the CAP canal. This process should be complete by the time of the development of the 2025 Plan of Operation.

3.3 CAGRD water supply activity, 2015-2019

An agreement between CAGRD, the Gila River Indian Community (GRIC) and Gila River Water Storage (GRWS) was approved in January 2019. The agreement includes a 25-year lease of 18,185 AF/yr of GRIC NIA Priority CAP entitlement and a 25-year exchange of 15,000 AF/yr of GRIC Indian Priority CAP water. CAGRD purchased 375,000 AF of LTSCs located in the Pinal AMA that will be exchanged for the Indian Priority water and an additional 70,375 AF of LTSCs located in the Phoenix AMA from GRWS. The credit transfers were completed in 2019 and the lease and exchange will begin in 2020.

The exchange will be accomplished through an innovative mechanism that will allow Pinal LTSCs, recovered via GRIC wells for use in their farming operation, to be converted into a Phoenix or Tucson AMA water supply, delivered for CAGRD purposes to underground storage facilities (USFs) and groundwater savings facilities (GSFs) in the Phoenix and Tucson AMAs. The GRIC NIA water will be recharged to the aquifer beneath GRIC lands by delivery to its Olberg Dam Recharge Facility, earning LTSCs in the Phoenix AMA for CAGRD use. The 70,375 Phoenix AMA LTSCs have been added to CAGRD's long-term storage account to be used as needed to offset future replenishment obligations.

From 2015 through 2019, new agreements in the Phoenix and Tucson AMAs enabled CAGRD to purchase an additional 138,300 LTSCs, apart from the GRIC/GRWS acquisition. Through previously existing agreements CAGRD acquired another 126,500 LTSCs. Additionally, a single-year lease agreement approved in late 2019 between CAGRD and the Fort McDowell Yavapai Nation will allow CAGRD to deliver 3,933 AF to a recharge facility in the Phoenix AMA in 2020.

In 2017 and 2018, CAGR D sought to acquire supplies of Colorado River water by entering into a 25-year lease for the Town of Quartzsite's 4th Priority entitlement and through an acquisition of farm properties in the Mohave Valley Irrigation and Drainage District (MVIDD) that could have yielded a water supply through a rotational fallowing program within MVIDD. Ultimately, ADWR did not recommend the contract modification necessary for the Quartzsite lease. The MVIDD acquisition was not finalized because of issues encountered during the due diligence period that could not be resolved prior to the closing deadline. While such efforts to work with interested on-river users provide an opportunity for CAGR D to secure a higher-priority, drought resilient water supply, efforts to address local concerns with transfers of Colorado River water into central Arizona will be critical for these types of transactions in the future.

3.4 Water supply assessment and summary

As described above, water supply acquisitions completed since implementation of the 2015 Plan have allowed CAGR D to reduce reliance on Excess CAP Water to meet annual replenishment obligations. In the near-term, CAGR D's portfolio of water supplies is in excess of anticipated replenishment obligations. This will allow additional accumulation of LTSCs in years when the full supply is available. This is one potential strategy for managing Colorado River shortages. Acquisition of other supplies may become a reality if Colorado River shortage becomes a frequent occurrence that limits the availability of the CAP NIA supplies in the CAGR D portfolio.

Even if the CAP NIA supplies remain available in most years, the exchange and lease agreements with GRIC will expire in 25 years and will need to be replaced before then. Most of the water supply acquisition efforts during the past five years and in the future are likely to focus on needs for replenishment in the Phoenix AMA. Future replenishment obligations can be met using available LTSCs in the Tucson and Pinal AMAs for at least the next 20 years.

BOTTOM LINE

Water supply acquisitions completed since implementation of the 2015 Plan have positioned CAGR D's water portfolio in excess of anticipated replenishment obligations in the near term. However, the water supply risks posed by Colorado River shortages mean the acquisition of additional supplies continues to be at the forefront of CAGR D operations.

Arizona Water Market Focus

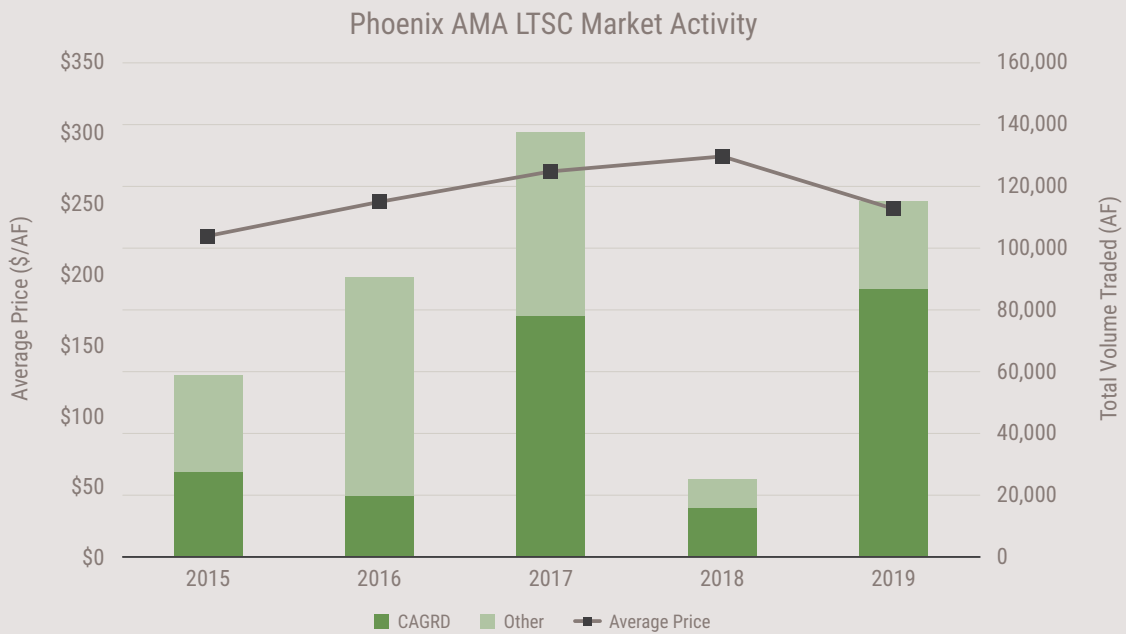
At the request of CAGRD, WestWater Research, L.L.C., gave the following update on Arizona water markets at the August 2019 meeting of the CAGRD and Underground Storage Committee.

LONG TERM STORAGE CREDITS

When eligible water is stored underground for more than one year, LTSCs may be issued. Each LTSC is a one-time right to recover an AF of water stored in a recharge facility in an AMA. They can be stored at a managed or constructed facility or at a GSF. LTSCs are easily tradable with a straightforward regulatory process for transferring intra-AMA. The ability to hold LTSCs indefinitely without cost is also a benefit to the LTSC owner.

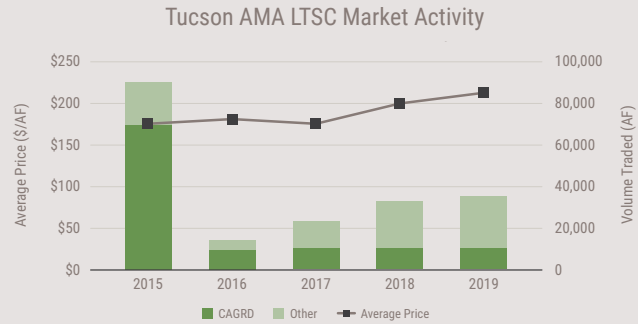
PHOENIX AMA

The market for LTSCs is the most active in the Phoenix AMA. However, it is a relatively small volume in any given year compared to the approximately 7 million acre-feet of total LTSCs. In more recent years, there has been upward pressure on the price/acre-foot beyond the cost to generate the credit due to drought concerns, reduced CAP Excess Water and increased economic development. CAGRD has been active in the market and is responsible for half of the overall volume traded each year since 2015.



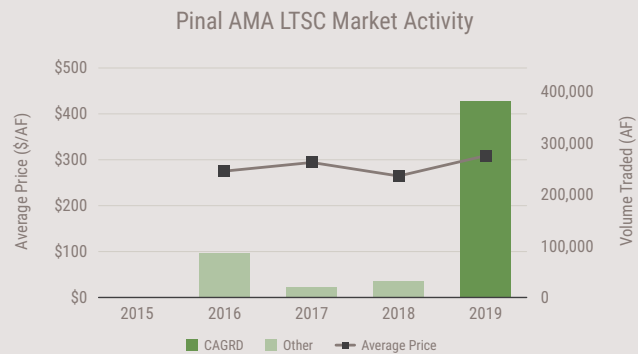
TUCSON AMA

The Tucson AMA market for LTSCs is relatively inactive with few buyers and sellers. Small volume trades occur infrequently. The primary buyers are the Arizona Water Banking Authority and the Town of Marana. The recent legislative change that allows a 95% LTSC accrual rate for effluent at managed USFs will create additional credits and keep the price/AF relatively low.



PINAL AMA

The Pinal AMA LTSC market experienced a spike in activity in 2019 driven by CAGRD’s participation in the GRIC GRWS, L.L.C. program. However, recent constraints on groundwater availability creates some uncertainty in the market and may affect the future value of LTSCs in the AMA.



CAP TRIBAL LEASES

A number of tribes receive CAP water as a result of settlements or other agreements that allow water to be leased for off-reservation uses. The duration of these leases are either single-year or 100-year terms. Tribal CAP water is the only type of CAP water that can be marketed directly.

Short term leases have been used either for the creation of LTSCs or as part of the Pilot System Conservation Program (PSCP) where the water remains in Lake Mead as system water. BOR has paid between \$170- \$190/AF of Tribal CAP water leased and stored in Lake Mead since 2015. Buyers are paying closer to \$20/AF for one-year leases outside of the PSCP, generally for water banking purchases. These low-cost leases are not expected to continue because of rising price expectations from the PSCP.



Long-term leases of 100 years occur less frequently, with only a handful issued in recent years. There is hesitancy on the part of tribes to enter into a 100-year term because of the term length. Therefore, prices/acre-foot are high and the payment is often expected to be upfront. Prices have risen by an 8.6% annual growth rate since 2013. The most recent long-term lease agreement of Tribal CAP Water was a 100-year lease from the San Carlos Apache Tribe to the Town of Gilbert in 2019. The Town paid approximately \$31.2 million upfront to receive 5,295 AF/yr for 100 years.

COLORADO RIVER ENTITLEMENTS

Colorado River Entitlements (CRE) include on-river Present Perfected Rights with Priority 1- Priority 4. Very few permanent transfers of CRE have occurred. A small number of low volume transfers from one type of use to another took place in the Cibola region, but they were within the county and have not happened recently. With few exceptions, transfers of on river water to central Arizona have not yet been completed and the concept brings political challenges and some regulatory uncertainty.

As in short-term leases of CAP water, CRE holders have been participating in the PSCP. In most instances, the consumptive use of CREs has been reduced to contribute water to Lake Mead through rotational fallowing programs whereby entities agree to fallow a portion of irrigated land for a year in exchange for compensation. This is in contrast to outright farm purchases where the fields are permanently dried up. In rotational fallowing, the entitlement remains with the seller.

There is continued interest in transferring CREs to central Arizona. Municipalities experiencing high growth may pursue CRE purchases to offset groundwater reliance. There is some indication that interest from the PSCP and central Arizona municipalities is increasing the price expectations of interested sellers. There may also be some speculation occurring with buyers purchasing land with CRE with the expectation that transfers to central Arizona may be more feasible in the future. There has been 9.1% annual growth in the price of land with CREs since 2013.

EXTINGUISHMENT CREDITS

There is a very small market for Extinguishment Credits within the CAP service area, due to the limited ways in which the credits can be used compared to LTSCs. CAGRD cannot participate in this market but is affected by it. The Town of Queen Creek for example has recently used Extinguishment Credits to reduce assessment fees to the CAGRD.

Source: Seely, Harry. "2019 Arizona Water Market Update." CAGRD and Underground Storage Committee, 15 August 2019, Central Arizona Project, Phoenix, AZ. Guest Presentation.

4.0

Replenishment Reserve

CAGR D's statutorily mandated Replenishment Reserve is comprised of LTSCs accrued in a Replenishment Reserve subaccount established for each AMA in which CAGR D operates. The purpose of the Replenishment Reserve is to help ensure that CAGR D is capable of meeting its replenishment obligation and to enhance rate stability in times of water supply shortage or infrastructure failure. CAGR D can use LTSCs from the Replenishment Reserve to offset its annual replenishment obligation, rather than acquiring spot-market water supplies, which may be more expensive during shortage or outage conditions.

4.1 Replenishment reserve target

The volume of LTSCs required for the Replenishment Reserve is referred to as the Reserve Target. The Reserve Target calculated for each AMA is based on that specific AMA's projected obligation and the water supplies planned to meet the obligation volume as described in this 2015 Mid-Plan Review. The Reserve Target is re-calculated for each new Plan of Operation. If LTSCs in the Replenishment Reserve are applied to offset obligation, CAGR D is required to accrue replacement credits.

REPLENISHMENT RESERVE CALCULATION

The Reserve Target for each AMA is equivalent to 20% of the difference between the total 100-year replenishment obligation for that AMA and the total volume of long- and intermediate-term water supplies planned for use to meet the obligation. The projected obligation for Category 2 MLs (golf courses) and the obligation associated with the Water Availability Status membership (City of Scottsdale) are excluded from the total 100-year replenishment obligation. Water supplies with less than 20 years of availability are also excluded from the total volume of water supplies when calculating the Reserve Target LTSC volume.

RESERVE TARGET FORMULA = (OBLIGATIONS – SUPPLIES) X 20%

Obligations = CAGR D's total projected groundwater replenishment obligation¹ over the next 100 years;

Supplies = Sum of water supplies identified in CAGR D Plan of Operation that CAGR D plans to use to meet its replenishment obligation in the AMA (adjusted based on availability).

AMA REPLENISHMENT RESERVE TARGETS IN 2015 PLAN (AF)**TABLE 4.1**

PHOENIX AMA	PINAL AMA	TUCSON AMA	TOTAL
603,866	48,036	112,600	764,502

The Reserve Targets identified in **Table 4.1** remain effective until CAGRDR prepares its next Plan of Operation (2025 through 2034), unless a significant change occurs in the currently projected obligation or the water supply acquisition plan. CAGRDR does not anticipate and has not experienced a significant change in either of these conditions during the 2015 Plan.

4.2 Mid-Plan review replenishment reserve update

CAGRDR has accrued a significant volume of LTSCs in its Replenishment Reserve subaccounts during the first five years (2015-2019) of the 2015 Plan, as shown in **Table 4.2** below. These LTSCs were accrued through a combination of water storage at constructed USFs, GSFs and the purchase of pre-existing LTSCs from CAWCD. The rate of accrual is consistent with achieving the targets of each AMA over the next two decades and has been deemed sufficient by ADWR. The Replenishment Reserve rates are set biennially and based appropriately to meet these targets over this time frame.

REPLENISHMENT RESERVE ANNUAL BALANCE (AF)**TABLE 4.2**

AMA	2013	2014	2015	2016	2017	2018	2019
PHOENIX	130,914	142,573	155,257	167,330	179,738	179,738	214,038
PINAL	3,243	3,547	3,823	4,021	4,289	4,289	4,933
TUCSON	29,489	31,272	32,543	33,833	34,616	34,635	37,335
TOTAL:	163,646	177,392	191,623	205,184	218,643	218,662	256,306

Note: 2019 LTSC estimate based on anticipated CAGRDR water deliveries and the purchase of CAWCD dedicated credits with Replenishment Reserve funds by 12/31/2019.

4.3 Planned replenishment reserve activities

The following sections describe water supplies CAGRDR intends to use to meet the Reserve Target for each AMA. In addition to the LTSCs, CAGRDR already has accrued in its Replenishment Reserve accounts, as referenced in Table 4.2, a large number of existing credits held by CAWCD dedicated to the Replenishment Reserve. These dedicated credits were accrued by CAWCD in the early to mid-1990s using its own reserve funds as well as using money from the Arizona State Water Storage Fund (also known as State Demonstration funds). On Nov. 3, 2016, the CAWCD Board amended its policy to permit CAGRDR to use unencumbered dedicated credits to meet replenishment obligation and/or accrue the replenishment reserve. That same CAWCD Board policy requires CAGRDR to pay CAWCD for the LTSCs upon the transfer date at a rate equal to the then-current rate of Excess CAP Water that otherwise could be used by CAGRDR to accrue LTSCs. If Excess CAP Water is unavailable to CAGRDR to accrue LTSCs when a transfer occurs, CAGRDR pays CAWCD an identical rate paid by CAP M&I subcontractors for water delivery, plus the then-current M&I capital charge.

Table 4.3 summarizes the total LTSCs available for the CAGRDR Replenishment Reserve in each AMA, including the existing CAGRDR Replenishment Reserve credits accrued through calendar year 2019 and the remaining dedicated CAWCD credits available to CAGRDR.

AVAILABLE REPLENISHMENT RESERVE CREDITS BY AMA (AF)

TABLE 4.3

AMA	ACCRUED LTSCS	REMAINING DEDICATED LTSCS	TOTAL AVAILABLE LTSCS
PHOENIX	214,038	237,690	451,728
PINAL	4,933	315,572	320,505
TUCSON	37,335	561	37,896
TOTAL:	256,306	553,823	810,129

Table 4.4 provides a summary of the AMA Replenishment Reserve Targets, total available LTSCs and the difference in available credits per AMA.

REPLENISHMENT RESERVE TARGETS COMPARED TO AVAILABLE LTSCS (AF)

TABLE 4.4

AMA	RESERVE TARGET	TOTAL AVAILABLE LTSCS	DIFFERENCE
PHOENIX	603,866	451,728	-152,138
PINAL	48,036	320,505	272,469
TUCSON	112,600	37,896	-74,704
TOTAL:	764,502	810,129	45,627

4.4 Replenishment reserve summary

Sufficient water supplies are available to CAGR D to meet the total Reserve Target through the combination of CAGR D's existing Replenishment Reserve subaccount balance and dedicated CAWCD LTSCs. The CAWCD dedicated credits effectively act as an "insurance policy" that will ensure CAGR D will be able to fully meet and maintain its Reserve Targets regardless of water supply conditions within the CAWCD service area. Additionally, the water supplies CAGR D plans to use during the remainder of the 2015 Plan and beyond are described in Chapter 3. A portion of the water supplies identified could be used to help meet the Reserve Targets established for the Tucson and Phoenix AMAs.

BOTTOM LINE

The 2015 Plan identified a total Reserve Target of 764,502 acre-feet across the Phoenix, Pinal and Tucson AMAs. At the end of 2019, CAGR D has acquired 256,306 acre-feet of LTSCs and CAWCD has 553,823 dedicated LTSCs remaining to meet the Reserve Targets. These dedicated LTSCs effectively provide a secure "insurance policy" that ensures CAGR D will fully meet its Reserve Targets regardless of future water supply conditions within the tri-county service area.

5.0

Storage Facilities Planned For Use

As required by statute, the 2015 Plan includes a description of the storage facilities and storage capacity available to CAGRD for the next 20 years. Existing statutes require CAGRD to replenish within the AMA in which obligations are incurred. In the Phoenix AMA, statute adds that, to the extent reasonably feasible, replenishment should occur in the east and west portion of the AMA in approximate proportion to the obligation attributable to each portion of the AMA. The 2015 Plan analysis of available storage identified more than sufficient USF and GSF capacity in each AMA to fully meet CAGRD's replenishment obligations until 2034.

5.1 Plan assumptions on available capacity to CAGRD

In the 2015 Plan, available storage capacity to CAGRD at CAWCD-owned/operated USF facilities was determined using the 2013 CAWCD Board-approved policy for USF capacity priority that provides a priority list for storage at CAP-owned facilities. GSF storage capacity was determined by subtracting the average storage over the last six years by non-CAGRD GSF partners from the operational capacity and through coordination with GSF operators.

5.2 Mid-Plan description of Description of storage facilities available to CAGRD

The following description provides a 2015 Mid-Plan review of the current available capacity for CAGRD. The same assumptions used in the 2015 Plan were used to determine available storage capacity for this Mid-Plan Review.

5.2.1 Underground storage facilities constructed by CAWCD & CAWCD's USF capacity priority policy

CAWCD owns and operates six direct recharge projects or USFs, four serving the Phoenix AMA and two in the Tucson AMA. The four projects in the Phoenix AMA include: Tonopah Desert Recharge Project (TDRP), Hieroglyphic Mountains Recharge Project (HMRP), Aqua Fria Recharge Project (AFRP) and Superstition Mountains Recharge Project (SMRP) and have a total permitted capacity of 240,000 AF/yr. This total assumes one of those facilities, Agua Fria Recharge Project (AFRP), currently permitted for 100,000 AF/yr will be lowered to an annual permit capacity to 30,000 AF/yr once it is re-permitted in the near future. The largest project in the Phoenix AMA, TDRP with an annual capacity of 150,000 AF/yr, is currently inactive but could be brought into service within a couple of months if needed. In the Tucson AMA, CAWCD facilities have a total permitted capacity of 80,000 AF/yr and include Lower Santa Cruz Recharge Project (LSCR) and Pima Mine Road Recharge Project (PMRRP). In its entirety, CAWCD's annual USF capacity is 320,000 AF/yr.

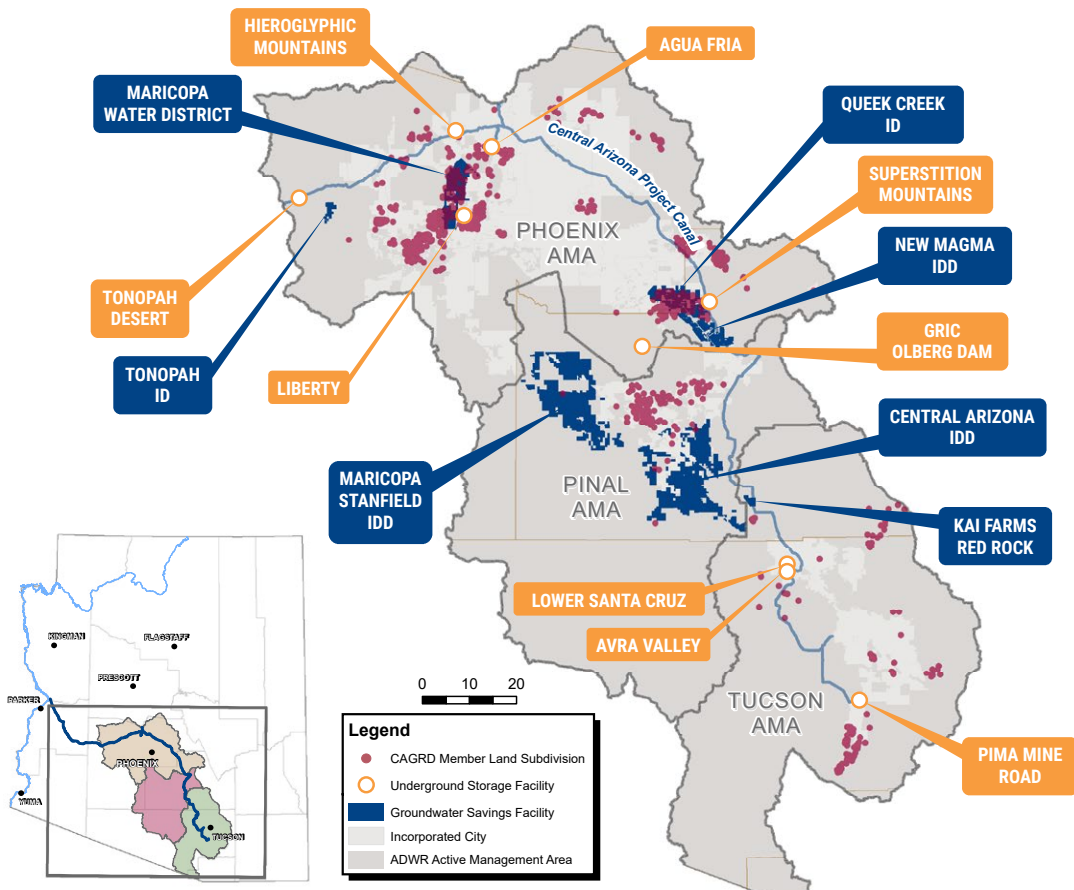
In May 2013, the CAWCD Board approved a USF capacity priority policy that provides a priority list for storage at

CAP-owned facilities. Second priority status was given to CAGR’s replenishment and firming obligations. CAGR’s priority is second only to entities that have contractual rights to CAWCD facilities including: City of Peoria’s 15% ownership of HMRP and AFRP; City of Tucson’s 50% ownership of PMRRP; system reliability of approximately 2,300 AF at LSCR for the Northwest Providers; and 6,000 AF at PMRRP for the City of Tucson.

Figure 5.1 provides a map of the USFs and GSFs available to CAGR to meet its members’ replenishment obligations.

STORAGE FACILITIES AVAILABLE FOR USE BY CAGR

FIGURE 5.1



5.2.2 Groundwater savings facilities

CAGR also has permits and/or water storage agreements with seven GSFs: four in the Phoenix AMA, which include Tonopah Irrigation District (TID), Queen Creek Irrigation District (QCID), Maricopa Irrigation District (MID) and New Magma Irrigation and Drainage District (NMIDD); two in the Pinal AMA including Maricopa-Stanfield Irrigation and Drainage District (MSIDD) and Central Arizona Irrigation and Drainage District (CAIDD); and one in the Tucson AMA, Kai Farms. In total, the GSFs have an operational capacity of 377,737 AF/yr with 134,300 AF/yr potentially available

to CAGRD.

5.2.3 Effluent facilities available to CAGRD

The 2015 Plan did not include effluent storage facilities available to CAGRD. In 2017, the first effluent recharge project developed through a public-private partnership was opened in Goodyear by Liberty Utilities (Liberty Aquifer Replenishment Facility). CAWCD contributed \$6M to the project and in return received a 100-year lease to 2,400 AF of effluent along with the capacity to store the water at the Liberty facility to earn LTSCs.

5.3 Storage capacity available to CAGRD by AMA

In the Phoenix AMA, CAGRD has storage availability in five USF projects and four GSF projects. In total there is 269,685 AF/yr available to CAGRD in 2020 that increases to 284,680 AF/yr by 2025 (**Table 5.1**). The increase is due to a CAWCD agreement with Salt River Project giving it first right of refusal to 15,000 AF/yr of capacity at SMRP that expires in 2023. In the 2015 Plan, an additional 31,500 AF/yr was assigned to SMRP starting in 2020. The increase was the additional capacity created by completing the Phase 2 expansion of the project. This expansion is no longer planned. In addition to the existing storage in the Phoenix AMA, CAGRD recently obtained a water storage permit at the newly constructed GRIC Olberg Dam USF on the Gila River Indian Reservation. This storage site will also be used for future replenishment by CAGRD in the Phoenix AMA.

In the Pinal AMA, CAGRD has access to two GSFs (MSIDD and CAIDD) with an available capacity of 97,700 AF/yr (**Table 5.2**). In the Tucson AMA CAGRD has capacity at three USFs and one GSF with a combined total of 50,222 AF/yr (**Table 5.2**). One USF, the AVR, is owned by the Metropolitan Domestic Water Improvement District, but CAGRD does not have an active agreement to store there at this time.

INVENTORY OF AVAILABLE STORAGE CAPACITY IN PHOENIX AMA

TABLE 5.1

	RECHARGE FACILITY	PERMIT NO.	CAPACITY (AF/YR)		STORAGE CAPACITY ³ POTENTIALLY AVAILABLE TO CAGR (AF/YR)			
			PERMITTED ¹	OPERATIONAL ²	2020	2025	2030	2034
PHOENIX AMA								
USF	Tonopah Desert Recharge Project	73-593305.0001	150,000	150,000	150,000	150,000	150,000	150,000
	Hieroglyphic Mountains Recharge Project ⁴	73-584466.0000	35,000	35,000	30,000	30,000	30,000	30,000
	Agua Fria Recharge Project ⁴	73-569775.0000 73-569776.0000	100,000	27,000 ↑	23,000 ↑	23,000 ↑	23,000 ↑	23,000 ↑
	Superstition Mountains Recharge Project ⁵	73-207702.0000	25,000 ↓	25,000	10,000 ↓	25,000 ↓	25,000 ↓	25,000 ↓
	Liberty Aquifer Replenishment Facility ⁶	73-224000.0200	6,000	4,000	2,400	2,400	2,400	2,400
	GRIC Olberg Dam	73-227650.0500 (Phoenix) 73-227650.0600 (Pinal)	20,000	20,000	18,185	18,185	18,185	18,185
GSF	Tonopah Irrigation District	73-534439.0001	17,000	17,000	14,500	14,500	14,500	14,500
	Queen Creek Irrigation District	73-534550.0400	20,000	20,000	7,600	7,600	7,600	7,600
	New Magma Irrigation and Drainage District	73-534888.0101	59,506	59,506	9,000	9,000	9,000	9,000
	Maricopa Water District	73-558246.0800	40,000	40,000	5,000 ↓	5,000 ↓	5,000 ↓	5,000 ↓
Phoenix AMA Subtotal			472,506	397,506 ↑	269,685 ↓	284,685 ↓	284,685 ↓	284,685 ↓

↑ ↓ Indicates volume is higher or lower than volume in the 2015 Plan of Operation

INVENTORY OF AVAILABLE STORAGE CAPACITY IN PINAL AND TUCSON AMAS

TABLE 5.2

			CAPACITY (AF/YR)		STORAGE CAPACITY ³ POTENTIALLY AVAILABLE TO CAGR D (AF/YR)			
	RECHARGE FACILITY	PERMIT NO.	PERMITTED ¹	OPERATIONAL ²	2020	2025	2030	2034
PINAL AMA								
GSF	Maricopa Stanfield Irrigation and Drainage District	73-531381.0005	120,000	120,000	57,700	57,700	57,700	57,700
	Central Arizona Irrigation and Drainage District	73-531382.0005	110,000	110,000	40,000	40,000	40,000	40,000
Pinal AMA Subtotal:			230,000	230,000	97,700	97,700	97,700	97,700
TUCSON AMA								
USF	Lower Santa Cruz Recharge Project ⁷	73-561366.0000	50,000	42,000	39,722	39,722	39,722	39,722
	Pima Mine Road Recharge Project ⁸	73-577501.0100	30,000	30,000	9,000	9,000	9,000	9,000
	Avra Valley Recharge Project ⁹	73-564896.0000	11,000	8,000	1,000	1,000	1,000	1,000
GSF	Kai Farms (Red Rock)	73-558092.0201	11,231	11,231	500	500	500	500
Tucson AMA Subtotal:			102,231	91,231	50,222	50,222	50,222	50,222
Total:			804,731	718,737↑	417,607↑	432,607↑	432,607↑	432,607↑

¹ Permitted capacity represents the maximum annual volume allowable by ADWR.

² Operational capacity represents the maximum volume the facility operator has determined can be stored in a given year. Differences between permitted and operational capacity for USFs may vary depending on factors such as infrastructure and infiltration rate limitations.

³ Storage capacity for CAWCD USF facilities determined to be all available storage after contractual obligations were met; Storage capacity for GSFs was determined by subtracting the average storage over the last six years by non-CAGR D GSF partners from the operational capacity and coordination with the GSF operators.

⁴ City of Peoria owns 15% of storage capacity.

⁵ Salt River Project has first right of refusal to 15,000 AF/yr of storage capacity until 2023.

⁶ The Liberty Aquifer Replenishment Facility permit volume increases over 20 years to the full permitted capacity.

⁷ Approximately 2,300 AF/yr of storage capacity reserved as system reliability for Northwest Providers.

⁸ City of Tucson owns 50% of annual storage capacity; 6,000 AF/yr of remaining storage capacity reserved for Tucson's system reliability.

⁹ Owned by Metropolitan Domestic Water Improvement District (MDWID); Available storage capacity for CAGR D provided per MDWID staff.

5.4 Available storage capacity summary

Although there have been minor changes in available storage capacity used by CAGRDR since the 2015 Plan was approved, there remains sufficient capacity to meet CAGRDR's replenishment obligation until 2034 (**Table 5.3**). Currently there are no plans to add or build additional recharge facilities, however, in the future, additional facilities may be considered if they 1) decrease costs to CAGRDR and/or 2) enable replenishment closer to an area where obligation is incurred.

UPDATED STORAGE CAPACITY AVAILABLE TO CAGRDR (AF)

Combined USF and GSF

TABLE 5.3

		2020	2025	2030	2034
PHOENIX AMA	Capacity Available	269,685	284,685	284,685	284,685
	CAGRDR Obligation	37,700	53,300	62,500	68,600
	Remaining Capacity	231,985	231,385	222,185	216,085
	Difference from Plan	(31,415)	(31,415)	(31,415)	(31,415)
PINAL AMA	Capacity Available	97,700	97,700	97,700	97,700
	CAGRDR Obligation	1,500	3,500	4,900	5,600
	Remaining Capacity	96,200	94,200	92,800	92,100
TUCSON AMA	Capacity Available	50,222	50,222	50,222	50,222
	CAGRDR Obligation	5,600	9,900	12,000	12,700
	Remaining Capacity	44,622	40,322	38,222	37,522

BOTTOM LINE

Although there have been minor changes in storage capacity available to CAGRDR since the 2015 Plan was approved, more than sufficient storage facility capacity exists in each AMA to meet CAGRDR's replenishment obligation through 2034.

6.0

Financial Capability

Statutes require that all CAGR D operations be funded completely by its members. CAGR D has a number of revenue sources available to fulfill its obligations, including fees, dues and rates (Figure 6.1). Each revenue source contributes to one or more of the four reserve funds, detailed below.

Reserve Funds

- **Administrative** funds are used to pay the administrative costs of CAGR D (including salaries, benefits, overhead, equipment, special services, and implementation of CAGR D conservation program). Annual collections equal approximately next year's annual expenditures.
- **Water & Replenishment (W&R)** funds are used to pay the annual cost to deliver and replenish water to meet annual replenishment obligations. Annual collections equal approximately next year's annual expenditures.
- **Infrastructure & Water Rights (I&WR)** funds are used to pay the cost to acquire rights to water and develop infrastructure necessary for CAGR D to perform its replenishment obligations.
- **Replenishment Reserve** funds are used to pay the cost of establishing and maintaining a replenishment reserve of LTSCs. Annual collections equal approximately next year's annual expenditures.

These financial mechanisms have ensured CAGR D's ability to meet its statutory obligations using funds collected exclusively from its members and will continue to do so through the remaining 2015 Plan period and beyond. Statutes, as well as CAWCD Board policy, dictate how these fees, dues and rates are collected and used.

6.1 Sources & uses of revenue

Each revenue source, and the fund it contributes to, is diagrammed in **Figure 6.1**.

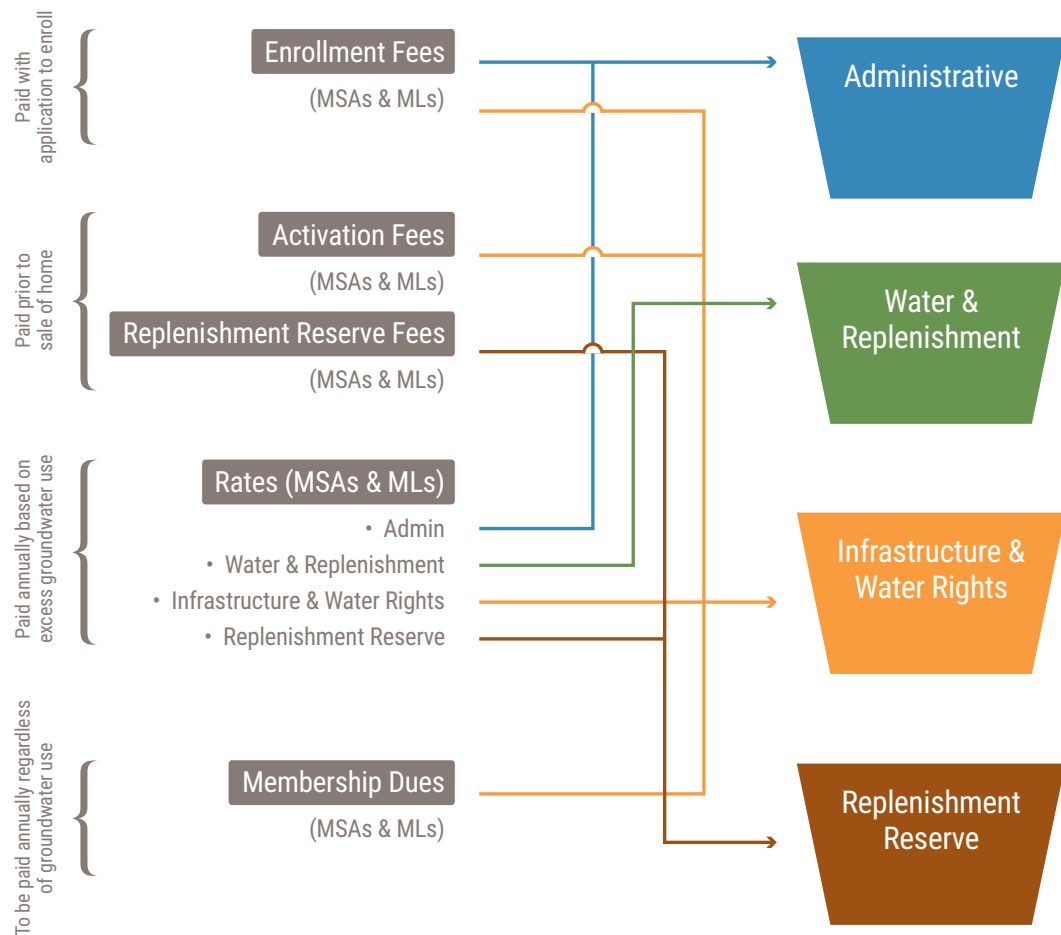
6.1.1 Status of fees

CAGR D collects three different fees from its members: Enrollment, Activation and Replenishment Reserve.

The **Enrollment Fee** is a one-time fee based on the number of housing units in each ML and is paid when an applicant, usually the developer, submits an application to enroll. MSAs pay a flat enrollment fee for their entire service area upon enrollment. In 2008, the CAWCD Board adopted the "CAGR D Enrollment Fee and Activation Fee Policy," describing how the Enrollment Fee is established. Initially, Enrollment Fees were dedicated solely to the Infrastructure & Water Rights (I&WR) fund. In response to a CAGR D cost of service study recommendation, the policy was amended in November 2015 to use a portion of Enrollment Fees to cover the administrative costs of enrollment-related activities in addition to I&WR uses. A special Enrollment Fee for commercial subdivisions was also established in the policy update, creating payment equity between residential and non-residential properties.

CAGR D REVENUE STREAMS

FIGURE 6.1



Between 2015 and 2019, the Enrollment Fee experienced only a slight increase from \$237 per unit in 2014/15 to \$284 per unit in 2019/20. Authorized by the CAWCD Board in November 2015, the Enrollment Fee for commercial subdivisions increased from \$500 per unit in 2016/17 to \$1,094 per unit in 2019/20.

The **Activation Fee** is also a one-time fee that must be paid, usually by the homebuilder, for all subdivisions within both ML and MSAs before the Arizona Department of Real Estate will issue a public report allowing the sale of parcels within the subdivision. The aforementioned policy also describes how the Activation Fee is established. In 2013, after a number of stakeholder meetings on the development of the 2015 Plan, the CAWCD Board approved an Infrastructure and Water Rights Funding Proposal that increased the amount of the Activation Fee in order to collect a more significant portion of funding for I&WR prior to homes being built and replenishment obligations being incurred and to provide equity amongst CAGR D members. Between 2014 and 2019 Activation Fees averaged a 33% increase per year for the Phoenix and Pinal AMAs, and a 27% increase per year for the Tucson AMA. In March 2019, after reassessing the Activation Fee target, staff recommended slowing the rate of increase in Activation Fees, while retaining sufficient increases to reach a post-2019 Activation Fee target and maintain CAGR D in a financially healthy position. Based on this recommendation and input from stakeholders, the Board approved a staff recommendation to continue increasing the Activation Fees for 2020/21 through 2023/24 in the Phoenix, Pinal and Tucson AMAs by 9% per year.

CAGRDR must also levy a one-time **Replenishment Reserve Fee** against Category 1 (non-golf course) MLs and against MSAs. Revenues generated from the Replenishment Reserve Fee are used to accrue LTSCs for use in establishing and maintaining the Replenishment Reserve in the AMA where the fee was levied. The Replenishment Reserve Fee is based on the cost of water or the LTSCs that are anticipated to be used for the reserve.

- The Phoenix AMA Fee has increased from \$63 in 2014/15 to \$95 in 2019/20
- The Pinal AMA Fee has increased from \$70 in 2014/15 to \$103 in 2019/20
- The Tucson AMA Fee has increased from \$80 in 2014/15 to \$102 in 2019/20

6.1.2 Status of annual membership dues

In 2010, legislation was passed that allowed for the collection of Annual Membership Dues (AMDs). The dues are to be collected annually from all enrolled members, regardless of a replenishment obligation, and can be used to pledge toward bonding as they can be a dependable revenue stream regardless of obligation levels. The use of AMDs is dedicated exclusively to the I&WR fund. Statute details a specific relationship between the amounts collected as Membership Dues and the other amounts (Enrollment Fees, Activation Fees and I&WR rate component) that are dedicated to the I&WR fund and how the total amount collected in each year is to be split between MLs and MSAs. Recently, AMDs have been collected at the maximum allowable rate except for the first year under the 2015 Plan, when the dues were collected at 90% to ease the transition to the newly required dues level.

6.1.3 Status of rates

The CAWCD Board is required by law to establish and levy an annual replenishment assessment against MLs and an annual replenishment tax against MSAs. The assessment must be levied on a per-acre-foot rate to replenish groundwater based on contractual replenishment obligations. **Table 6.2** shows the history of replenishment assessment rates through the first half of the 2015 Plan.

Under the CAGRDR Assessment Rate Setting Policy, CAGRDR establishes four separate rate components:

- 1. Water and Replenishment Rate Component** is established at the rate anticipated to fulfill the obligation for each AMA. Through 2019, the rate has been primarily based on the CAP Water Delivery Rates as most of the obligation have been fulfilled through CAP water. Beginning in 2020, the supplies will be using some of the Infrastructure and Water Rights-acquired LTSC inventory, including the GRIC NIA Lease and GRIC Exchange water. The impact is that the Phoenix AMA rate, and to a lesser extent the Tucson AMA rate, will be increasing at a faster pace (10-15% per year) for the next few years.
- 2. Administrative Rate Component** is established at a rate based on annual expenditures to cover CAGRDR administrative costs (excludes any water acquisition administrative costs). The estimated costs subtract the amount expected to be collected through enrollment fees and is spread over the projected obligation. The rate has been relatively stable at \$35-\$40 per acre-foot in all AMAs.
- 3. Infrastructure and Water Rights Rate Component** is collected in conjunction with other I&WR fees and dues to pay for administrative costs related to acquisition and the direct costs for water acquisition. It has been held stable at \$353 per acre-foot in all AMAs since 2015/16.
- 4. Replenishment Reserve Rate Component** is similar to the Replenishment Rate. It is established at the rate anticipated to meet the progress toward the Replenishment Reserve target for each AMA. Pinal AMA reserve credits are purchased from LTSCs held by CAWCD that are dedicated to CAGRDR. The Phoenix AMA uses a blend of inventory and CAWCD LTSCs, while the Tucson AMA has to use inventory LTSCs as CAWCD does not have access to any additional Tucson AMA dedicated credits after 2020. The sources used for the reserve are similar to those of the replenishment obligation and have been increasing at a similar rate.

REPLENISHMENT ASSESSMENT RATE SCHEDULE

TABLE 6.2

	FIRM RATES (\$/AF)					
PHOENIX ACTIVE MANAGEMENT AREA	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
WATER & REPLENISHMENT COMPONENT	\$172	\$179	\$186	\$214	\$192	\$238
ADMINISTRATIVE COMPONENT	45	45	32	36	40	41
INFRASTRUCTURE & WATER RIGHTS COMPONENT	294	353	353	353	353	353
REPLENISHMENT RESERVE COMPONENT	63	67	89	101	90	95
TOTAL ASSESSMENT RATE (\$/AF)	\$574	\$644	\$660	\$704	\$675	\$727
PINAL ACTIVE MANAGEMENT AREA	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
WATER & REPLENISHMENT COMPONENT	\$155	\$160	\$175	\$204	\$204	\$211
ADMINISTRATIVE COMPONENT	45	45	32	36	40	41
INFRASTRUCTURE & WATER RIGHTS COMPONENT	294	353	353	353	353	353
REPLENISHMENT RESERVE COMPONENT	70	75	96	108	97	103
TOTAL ASSESSMENT RATE (\$/AF)	\$564	\$633	\$656	\$701	\$694	\$708
TUCSON ACTIVE MANAGEMENT AREA	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
WATER & REPLENISHMENT COMPONENT	\$196	\$202	\$213	\$238	\$221	\$242
ADMINISTRATIVE COMPONENT	45	45	32	36	40	41
INFRASTRUCTURE & WATER RIGHTS COMPONENT	294	353	353	353	353	353
REPLENISHMENT RESERVE COMPONENT	80	85	108	131	103	102
TOTAL ASSESSMENT RATE (\$/AF)	\$615	\$685	\$706	\$758	\$717	\$738

6.2 CAGR D revenue bonding

Bonds were issued on July 24, 2019 in the amount of \$20 million to fund the final portion of a \$95 million purchase of LTSCs. CAWCD, on behalf of CAGR D, entered into an agreement with the Gila River Indian Community and Gila River Water Storage for the purchase of 375,000 AF of LTSCs for the Pinal AMA, and 70,375 AF of LTSCs for the Phoenix AMA. The purchase price was \$95 million, consisting of an initial payment of \$65 million due 30 days after signing, and the remaining payment of \$30 million due six months subsequent to the signing. The final bonds will mature in 2025 with each bond carrying an interest rate of 2.45%. CAWCD has the option of paying off the bond liability after three years without penalty.

Infrastructure & Water Rights (I&WR) Reserve

TABLE 6.3

<i>(in Millions)</i>		2019	2020	2021	2022	2023	2024
BEGINNING BALANCE		\$83.0	\$32.7	\$48.0	\$67.9	\$95.0	\$112.7
INFLWS	Enrollment Fees	1.6	2.0	2.7	2.7	2.6	2.8
	Activation Fees	11.6	10.1	11.7	14.3	15.6	17.0
	I&WR Rate	10.2	11.0	12.0	14.3	12.7	13.9
	Annual Membership Dues	9.6	11.3	13.1	12.6	11.1	10.3
	TOTAL REVENUES:	33.0	34.4	39.5	43.6	42.0	44.0
	Proceeds from Debt Financing	19.9	-	-	-	-	-
	Proceeds from Interfund purchases	1.4	0.3	0.3	0.4	-	-
	Interest Income	0.8	0.5	0.5	0.5	0.5	0.5
	TOTAL INFLOWS:	\$55.1	\$35.2	\$40.3	\$44.5	\$42.5	\$44.5
OUTFLOWS	LTSC Purchases	(103.1)	(15.0)	(7.5)	(4.3)	(11.6)	(11.9)
	Acquisition Costs*	-	-	(7.7)	(7.7)	(7.7)	(7.7)
	Admin Costs	(0.6)	(0.9)	(1.3)	(1.4)	(1.5)	(1.6)
	Debt Service	(1.7)	(4.0)	(4.0)	(4.0)	(4.0)	(4.0)
	TOTAL OUTFLOWS:	\$(105.4)	\$(19.9)	\$(20.5)	\$(17.4)	\$(24.8)	\$(25.2)
ENDING BALANCE:		\$32.7	\$48.0	\$67.9	\$95.0	\$112.7	\$132.0
LTSC INVENTORY BALANCE (KAF)		819	848	853	841	856	884

SOURCES OF DATA FOR CASH FORECAST:

2019 Based on 2019 2nd Quarter Financial Review

2020 Based on 2020 Budget

2021 Based on 2021 Budget

2022 - 2024 Inflows are based on forecasts provided to BBVA for loan request. Outflows are based on known LTSC purchase agreements; assumption that CAGRDR will pay \$7.7 million per year for the NIA reallocation starting in 2021; inflation for administrative costs; and debt service estimates.

*starting in 2021 CAGRDR pays \$7.7M per year for the NIA reallocation

6.3 CAGR D reserve funds

As detailed in **Figure 6.1**, CAGR D maintains four reserve funds. Various revenue sources are collected annually and spent annually on uses such as administrative costs, meeting annual replenishment obligation and acquiring or developing long-term storage credits for the Replenishment Reserve. I&WR revenues are more complex than other revenues and are used for periodic costs of acquiring water supplies, developing infrastructure, outside professional services and salaries related to the Water Supply Program. The funds can also be pledged toward revenue bonding. **Table 6.3** illustrates CAGR D's current assets and projected balances in the Infrastructure and Water Rights Reserve starting in 2019. In 2019, approximately \$103 million were used in part to purchase a significant volume of LTSCs, including the water acquisition between CAGR D and Gila River Water Storage, L.L.C. In the same year, CAGR D acquired its first external loan for \$20 million as part of the financing to pay for this water acquisition. Based on its current assets and projected revenues, CAGR D is well suited to meet its statutory obligation through the 2015 Plan.

6.4 Financial capability summary

Starting in 2013, CAGR D made a significant change in its revenue collection timeline by increasing earlier I&WR charges, specifically Enrollment and Activation Fees, rather than collecting them later in the membership timeline. This change shifts costs to be more equitable through time and amongst users and consequently moves some of the costs from the homeowner to the developer/homebuilder. In the next half of the 2015 Plan, CAGR D will continue to evaluate alternative rate structures that are equitable and based on the members' reliance on the CAGR D and rates will continue to be established to ensure CAGR D's financial viability. CAGR D recognizes that much of the revenue stream is based on annual reliance on the CAGR D, which can be variable from year-to-year, and is evaluating alternative rate structures that will help address the issue.

BOTTOM LINE

Based on its current assets and projected revenues, CAGR D is well suited to meet its statutory obligation through the current 2015 Plan. CAGR D will continue to evaluate alternative rate structures that are equitable and based on members' reliance on the CAGR D.

7.0

Conclusion

This Mid-Plan Review demonstrates that the 2015 Plan of Operation remains in good standing and complies with Arizona's water management goals. CAGRDR continues to fulfill its statutorily assigned duties effectively, demonstrating fiscal responsibility while securing a diverse water supply portfolio that will be available through the next several decades. CAGRDR will continue to be responsive to both opportunities and challenges in the remaining years of the 2015 Plan. Furthermore, the Mid-Plan Review development process has provided opportunities for the CAGRDR Committee and the public to ask questions and learn more about CAGRDR.

Since the 2015 Plan was approved, growth in the service area has returned to a steady pace, especially in the Phoenix AMA, but at a lower rate than was projected. This trend has and will most likely continue to result in lower than projected enrollment throughout the remainder of the 2015 Plan period. Obligations have held relatively constant over the last 10 years due to a number of factors, including changes in reporting requirements for some members, as well as the use of alternative mechanisms such as extinguishment credits and LTSCs.

With the ongoing drought and future shortages on the Colorado River, water supply challenges will continue; however, CAGRDR is well positioned to meet its replenishment obligations for the remainder of the 2015 Plan with a robust water supply portfolio, including a historic water acquisition with the Gila River Indian Community. There will be potential challenges ahead with the start of the DCP in 2020 and possible cuts to CAGRDR's NIA Priority CAP supplies in future years, but much of this water will be mitigated under agreements developed during the Arizona implementation of the DCP. Additionally, opportunities such as the 2017 approval of the System Use Agreement have opened up new options to the acquisitions program that weren't available at the time the 2015 Plan was approved.

In 2023, CAGRDR will begin to develop its 2025 Plan of Operation. As was the case in 2013, CAGRDR staff expects a high level of stakeholder involvement in the development of the next Plan. Recently, discussions regarding CAGRDR enrollment and operations have begun in various forums. These discussions include long-standing issues such as limiting CAGRDR enrollment and replenishing closer to the location of member pumping. While some of these issues relate specifically to water management, others reflect broader questions about the management and location of growth in Central Arizona and thus have implications well beyond CAGRDR. These issues could pose significant financial impacts to CAGRDR's members and to Arizona's economy as a whole. CAWCD looks forward to being a contributing member to future water planning conversations that are transparent, fact-based and involve all parties impacted by the issues.



January 24, 2020

Re: CAGR D 2019 Mid-Plan Review Comments

Dear Ms. Grignano:

The Arizona Municipal Water Users Association (AMWUA) appreciates the opportunity to provide comments about the 2019 Mid-Plan Review for the Central Arizona Groundwater Replenishment District (CAGR D). More importantly, we appreciate the Central Arizona Water Conservation District's (CAWCD) willingness to hear the perspective of stakeholders. AMWUA acknowledges the benefit of CAWCD to carefully review the status of the CAGR D at the midpoint of its 2015 Plan of Operation. We agree this Mid-Plan Review enhances CAWCD's reporting and increases transparency about CAGR D's operations.

Based on the Mid-Plan Review, AMWUA concurs that CAWCD staff overseeing the CAGR D are successfully ensuring that the CAGR D is meeting its replenishment obligations at this time under the 2015 Plan of Operation. The Mid-Plan Review also demonstrates that enrollment in the CAGR D is much less than what was projected in the 2015 Plan of Operation and CAWCD appears to have secured water supplies to meet future replenishment obligations for the next 25 years.

We would like to note a few specific comments on areas of the Mid-Plan Review that would benefit from clarification:

- Page 4: New member land (ML) enrollment during the recent five-year period brought 13,775 AF/yr of new demand at full buildout. Not only do the new MLs represent nearly a 10% increase in ML enrollment in just five years, but this seems like a significant amount of new future obligation for the CAGR D. How does the amount of new demand (13,775 AF/yr) compare with the 2015 Plan of Operation projection of demand associated specifically with new enrollment (see Table 3.6 in 2015 Plan of Operation)?
- Page 13: Section 2.3.4 demonstrates that the annual impact to reported obligation due to the 2015 change in excess groundwater reporting requirements has been significant. Had the assumptions used in the CAP:SAM model held true, wherein members would "continue to report at least two-thirds of their groundwater use as Excess Groundwater", annual obligations would have been *greater* than projected in both 2017 and 2018. The significance of this factor, as well as the impact of how and when groundwater allowances will be exhausted, should be elevated in the report.
- Page 18: The totals shown in Table 3.1 do not reflect an accurate summary of the supply volumes listed. Additionally, in the description on page 18, it would be useful to distinguish between the portfolio available for 100 years (including annualized LTSCs) versus the 25-year lease and exchange supplies.

Arizona Municipal Water Users Association

- Page 20: We believe the opposition surrounding the Town of Quartzsite lease and the proposed acquisition of farm properties in the Mohave Valley Irrigation and Drainage District present more significant challenges to the future of the CAGR D Water Supply Acquisition Program than described. Additional detail should be added regarding the impact to CAGR D of on-river opposition to Colorado River transfers into central Arizona.
- Page 25: Through 2019, CAGR D has achieved approximately 33% of its Replenishment Reserve target. Please provide clarification on whether this is deemed sufficient progress toward meeting that target, midway through the Plan period, and why. Does CAGR D have the financial capability to accrue the balance of the Replenishment Reserve target, through CAWCD Dedicated Credits or otherwise, through the remaining Plan period?

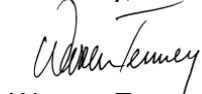
AMWUA believes that the overall presentation of the Mid-Plan Review gives the impression that, since all is well today, CAGR D operations will continue to be manageable into the future. However, CAGR D staff have also acknowledged during CAGR D and Underground Storage Committee presentations that lower near-term enrollment and replenishment obligations have been in large part due to economic conditions and factors outside of CAWCD's control. This being the case, AMWUA feels it is important for CAWCD staff, as stewards of the CAGR D, to highlight and encourage discussion about how the CAGR D could be strengthened to ensure its long-term viability through changing market and economic conditions. Acknowledging and discussing the challenges ahead does not diminish the hard work done by CAWCD staff to meet CAGR D's statutory obligations.

CAWCD staff's release of the Mid-Plan Review can and should be an opportunity to identify and begin initiating discussions with the CAWCD Board about issues that CAWCD will need to grapple with during the 2025 Plan of Operation and beyond. The Mid-Plan Review briefly notes some of the challenges, including, for example, "the impact of deep, prolonged shortages on NIA priority CAP water in the [CAGR D] portfolio" (p. 18) and "limiting CAGR D enrollment and replenishing closer to the location of pumping" (p. 39). One critical issue that the Mid-Plan Review only briefly touches on is how to secure a long-term, sustainable water portfolio to meet the long-term replenishment obligation that is increasing due to continuous enrollment, whether it is currently under 2015 Plan projections or not. In other words, the CAGR D is tasked with having to acquire new supplies to get out ahead of new enrollment over which it has no control, and that burden is concerning to our members and others in the water community.

AMWUA encourages the CAWCD Board to move the discussion beyond where the CAGR D is operating in 2020 to discuss the broader challenges and concerns surrounding the CAGR D.

Thank you and the CAWCD Board of Directors for your consideration of these comments.

Sincerely,



Warren Tenney
Executive Director



February 12, 2020

Mr. Warren Tenney
Executive Director
Arizona Municipal Water Users Association
3003 N. Central Avenue, Ste. 1550
Phoenix, AZ 85012

Subject: Response to AMWUA's Comment Letter dated January 24, 2020

Dear Mr. Tenney,

Thank you for providing comments on CAGRD's 2019 draft Mid-Plan Review (Mid-Plan). We appreciate hearing the perspectives of our stakeholders on the Mid-Plan and related CAGRD issues. Staff was pleased to read in your comment letter, dated January 24, 2020, that the Arizona Municipal Water Users Association (AMWUA) "concur[s] that CAWCD staff overseeing the CAGRD are successfully ensuring that the CAGRD is meeting its replenishment obligations at this time under the 2015 Plan of Operation" and "have secured water supplies to meet future replenishment obligations for the next 25 years."

CAGRD staff also appreciate AMWUA's interest in ensuring CAGRD's long-term viability and sustainability, in preparation for the 2025 Plan of Operation, by encouraging discussions of long-standing issues, such as how to secure a long-term sustainable water portfolio to meet continued enrollment and the location of replenishment. As we both know, these issues were recently identified for further discussion in the "Post 2025 AMA" Committee of the Governor's Water Augmentation, Innovation and Conservation Council. CAGRD staff believe discussion of these issues are most appropriate in the broader context of AMA water management and growth throughout the region. CAGRD looks forward to actively participating in those discussions.

The following points of clarification are offered in response to your comments on specific areas in the Mid-Plan. In some instances, as noted below, appropriate modifications are being incorporated into the Mid-Plan.

- Page 4: "How does the amount of new demand (13,775 AF/yr at build-out) compare with the 2015 Plan of Operation projection of demand associated specifically with new enrollment (see Table 3.6 in 2015 Plan of Operation)?"

As described more fully in section 3 of the 2015 Plan, the obligation projections account for the demand buildup through time, based on construction, water use, and reported obligation for both new and previous enrollment. The projections also include a downward adjustment to the demand listed on the individual Certificates of Assured Water Supply based on an analysis of historic use. Actual Member Land enrollment through the end of 2019 was substantially lower than projected in the 2015 Plan, resulting in a replenishment obligation approximately 11,000 AF lower than what was projected for 2114 in Table 3.6.

- Page 13: *"The significance of the change in reporting requirements for some member lands in 2014 and its related impact to lower obligations numbers should be elevated in the report."*

As your letter indicates, it appears that had assumptions used in the CAP:SAM model, held true and member land (ML) water providers continued to report at least two-thirds of their groundwater as excess groundwater after 2014, annual obligations for 2017 and 2018 would be slightly higher than projected obligations. However, had NIA reallocation occurred, the obligation would have been lower than projected. The report does acknowledge that "a significant portion of the difference between the projected and actual obligation" resulted from this change in reporting practices. The report also acknowledges that the strategy of reporting zero excess groundwater use is temporary and accelerates the future point in time when the groundwater allowance will run out. Finally, the report states that certain entities are actively purchasing extinguishment credits and LTSCs to reduce or eliminate their annual volume of excess groundwater reported and associated CAGR D fees.

- Page 18: Totals in Table 3.1 now reflect an accurate summary of water supplies listed. (Refer to attached edits to Table 3.1 and text on page 18 to reflect these changes. Edits to Table 3.1 resulted in an increase of 1,885 AF from volumes listed in the draft Mid-Plan.)

- Page 20: *"Additional detail should be added regarding the impact to CAGR D of on-river opposition to Colorado River transfers into central Arizona."*

The Mid-Plan recognizes that local, on-river opposition to Colorado River transfers may influence future CAGR D acquisition strategies; however, additional detail on how this opposition affects CAGR D in the future is speculative. Currently, there is a substantive policy statement and established process for transfers of Colorado River supplies regulated by ADWR and Bureau of Reclamation.

- Page 25: *"Does CAGR D have the financial capability to accrue the balance of the Replenishment Reserve target through the remaining period of the Plan period?"*

Since January 1, 2004, pursuant to A.R.S. §48-3774.01 and §48-3780.01, every category 1 ML and MSA enrolled in the CAGR D pays the replenishment reserve fee for 23 consecutive years after their activation year. Additionally, members also pay a one-time fee equal to two years' worth of the annual replenishment reserve fee in their year of activation. The current rate of accrual of LTSCs to meet the Replenishment Reserve target is consistent with achieving the target of each AMA over the next two decades. Replenishment Reserve rates are set biennially and based appropriately on these factors as well as the cost of water or the LTSCs that are anticipated to be used for the reserve.

Mr. Warren Tenney

February 12, 2020

Page 3

Thank you again for sharing your comments and perspectives on the Mid-Plan Review and related matters. AMWUA's letter is being provided to the CAGR & Underground Storage Committee and the full CAWCD Board.

Respectfully,

A handwritten signature in black ink, appearing to read "Laura Grignano". The signature is fluid and cursive, with a large initial "L" and "G".

Laura Grignano
CAGR Manager

Modification of top paragraph on p. 18 in response to AMWUA 3rd comment:

As a result of the water supply acquisitions completed in the past five years, CAGRD's water supply portfolio now totals more than 52,000 AF/yr without the NIA supplies awaiting authorization and nearly 73,000 AF/yr if those supplies become available (Table 3.1). At the same time, CAGRD replenishment obligations have trended less than projected in the 2015 Plan (see Section 2.4). Of those totals, 33,185 AF/yr is available until 2044 under the terms of the lease/exchange agreements with GRIC. The remaining supplies are either permanent or available for 100 years (or annualized over 100 years in the case of LTSCs).

Table 3.1

Supply Class	Volume (AF)	Availability	Description
CAP M&I	8,311	Annually	Permanent entitlement*, potential reduction under Tier 3 shortage
CAP Indian (GRIC)	15,000	Annually from 2020 to 2044	25 year exchange; potential reduction under Tier 3 shortage
CAP NIA (GRIC)	18,185	Annually from 2020 to 2044	25 year lease, subject to shortage reduction
Effluent	2,400	Annually, began 2017	100 year lease
CAP Indian (WMAT)	2,500	Annually from 2024	100 year lease, awaiting final authorization; subject to shortage
CAP NIA	18,185	Annually from 2024	Permanent, awaiting final authorization; subject to shortage
TOTAL	43,896 (currently available) / 64,581 (including future supplies awaiting final authorization)		
Long-term Storage Credits (current)	427,000	As needed	Currently in CAGRD Subaccount; equivalent to 4,270 AF/year for 100 years
Long-term Storage Credits (future)	390,000	2019-2114	To be acquired under existing purchase agreements; equivalent to 3,900/year for 100 years
TOTAL (with current and future credits)	52,066 (currently available) / 72,751 (including future supplies awaiting final authorization)		



From: [charles B](#)
To: [midplanreview](#)
Subject: progress
Date: Sunday, December 15, 2019 11:34:52 AM

Sirs

of all the things you publish I have yet to see one real plan to actually
conserve

Like slowing out of control growth of large housing developments and some mandatory cut backs
on irrigation of landscaping for just a couple things.

Charles Bucher

Fountain Hills



February 20, 2020

CAGRD and Underground Storage Committee Members
Central Arizona Water Conservation District
23636 N. Seventh St.
Phoenix, AZ 85024

RE: Comments on Draft 2019 CAGRD Mid-Plan Review

Dear Directors:

We commend the CAWCD Board of Directors in continuing its commitment to providing open, frequent and effective information on the operations of the Central Arizona Groundwater Replenishment District. Between the Mid-Plan Review and the enhanced Annual Reports, CAWCD continues to provide a shining example to other water entities on best practices in public accountability, stakeholder engagement and transparency. We further commend CAGRD staff for the excellent work in developing these documents in clear and concise language that gives a clear and complete picture of ongoing CAGRD operations. The Mid-Plan Review, the enhanced Annual Reports and the development of ten-year plan itself all create a robust and ongoing process that monitors CAGRD performance and ensures that it continues to function as intended.

While we and other economic development interests in the State would like to see an even more robust recovery of the Arizona economy and housing market, we are pleased real-world data show that CAGRD continues to operate well within the parameters of the 2015 Plan of Operations as approved by the Arizona Department of Water Resources. While the housing market has shown a definite (and encouraging) uptick in 2019, it is clear that enrollment and activation continue to be well below the 2015 Plan projections. Replenishment obligations also are significantly less than projected in the Plan – even significantly below the projections in the initial 1994 Plan. In fact, CAGRD has NOT grown “beyond expectations” as others have claimed.

Further, CAGRD has proven its ability to acquire the water supplies necessary to meet both its annual replenishment obligation and the requirements for the Replenishment Reserve. Over the past decade, CAGRD staff have successfully compiled an impressive portfolio of both short- and long-term water supplies sufficient to meet obligations for the next several decades. It is important for CAGRD to continue to build upon these successes and use its expertise and financial resources to pursue additional supplies over the remainder of the 2015 Plan and beyond.

Again, contrary to the claims of others, CAGR D is not required, and was never expected, to acquire a portfolio of 100-year water supplies. In fact, one of the advantages of the CAGR D replenishment model that was broadly discussed during the creation of CAGR D is the fact that CAGR D is able to use other water supplies, so it is not competing with designated water providers for 100-year supplies. And its members have proven a secure 100-year supply of high-quality groundwater to the full satisfaction of ADWR. Unlike the residents of some water providers' service areas, homeowners within CAGR D are not exposed to the risk of curtailment of potable water supply during drought, canal outages or the failure of surface water treatment plants.

Finally, CAGR D has demonstrated the financial capability to meet all of its legal mandates and has proven its ability to secure market-rate bond financing for current and future water acquisitions. It is important to note that CAGR D is fully funded by its members without relying upon funds from any other source.

Again, we thank the CAWCD Board of Directors and staff for providing this enlightening report on the successes of CAGR D over the past five years. CAGR D has proven itself to be a model for successful water management throughout its 27-year history.

Sincerely,



Connie Wilhelm
CEO
Home Builders Association of Central Arizona



David Godlewski
President
Southern Arizona Home Builders Association

Infrastructure Health Report

Part 1: Asset Management

CAWCD Board Meeting
March 5, 2020

Bob Moody
Assistant General Manager
Operations, Maintenance, Engineering



Infrastructure Health Report

- Asset Management Program, March 5, Bob Moody (15 min)
- Asset Reliability Process, April 2, Brian Buzard (15 min)
- Capital Replacement Process, April 2, Darrin Francom (15 min)
- Infrastructure Health Scores, May 7, Philip Rettinger (15min)

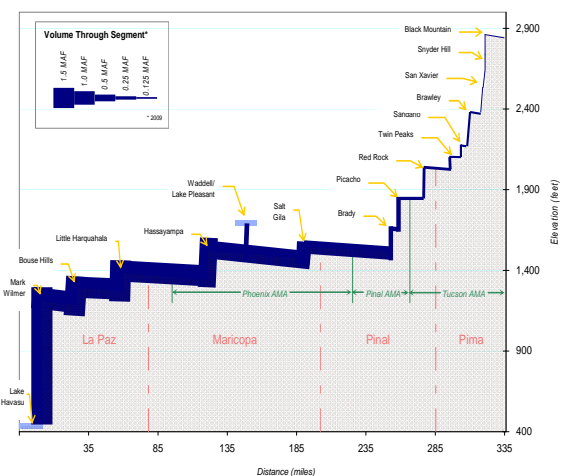


Part 1: Asset Management Program

- CAP Infrastructure
- Operations, Maintenance, Engineering (OM&E) Organization
- Operations, Maintenance, Engineering (OM&E) Mission
- Asset Management Program History and Overview
- Current System Performance Measures
- Challenges for the Future

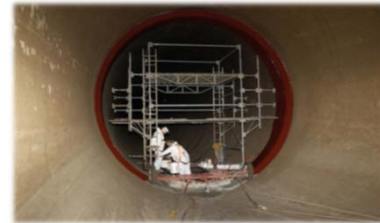
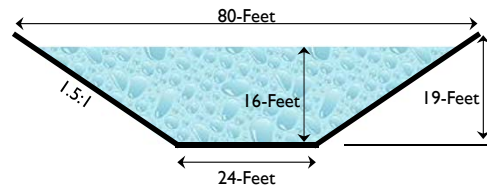


Central Arizona Project



Aqueduct Assets

- 336 miles of canal
- 10 siphons
- 3 tunnels
- Miles of flood control structures



Waddell

- Pump/Generating Plant
- Earthen Dam
- Bypass
- River Outlet Works
- Lake Pleasant Spillway



Pumping Plant Assets

- 15 pumping plants
- 109 motors up to 60000 HP
- 109 pumps up to 550 CFS
- 109 discharge valves to 144"



Aqueduct Control and Delivery Assets

- 39 Check Structures
- 46 Turnouts
- 6 Recharge Facilities



Power Transmission Assets

- 45 Power Transformers
- 15 Plant Substations
- Transmission Lines



9

Administrative Facilities

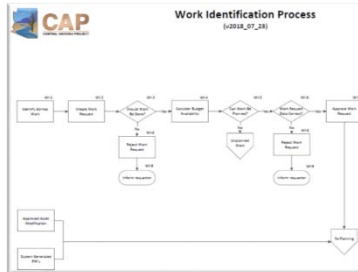
- Phoenix Headquarters
- Bouse Field Office
- Pinal Field Office
- Tucson Field Office



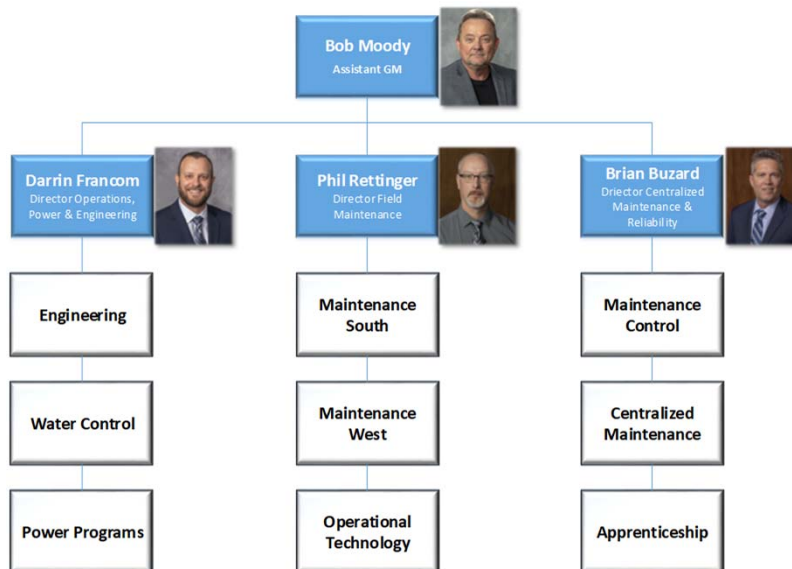
10

Asset Management

People → Process → System



Operations, Maintenance & Engineering



Operations, Engineering & Power



Engineering

Water Control

Power Programs

- **Engineering**

- Engineering Services– Electrical, Civil, Mechanical, Controls
- Project Management
- Drawing Services
- Lands and Records

- **Water Control**

- Water Systems
- Water Transmission

- **Power Programs**



13

Centralized Maintenance & Reliability



Maintenance
Control

Centralized
Maintenance

Apprenticeship

- **Maintenance Control**

- Reliability & Maintenance Engineering (2 Divisions)
- Maintenance Planning and Scheduling
- Maintenance Information

- **Centralized Maintenance**

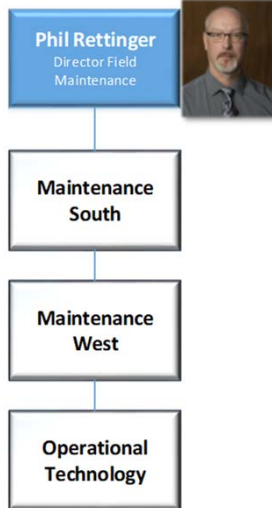
- Headquarters Maintenance
- Heavy Overhaul Group (2 Divisions)
- Fleet Services
- Machine Shop
- Protective Coatings

- **Apprenticeship**



14

Field Maintenance



- **Maintenance West /South**

- Pumping Plants (7 Divisions)
- Aqueducts (4 Divisions)

- **Operational Technology**

- Instrumentation and Control
- HVAC / Fire
- Protective Relays
- Electronics– Communications



15

Operation, Maintenance & Engineering

Mission

To provide reliable and cost effective operations, maintenance, and replacement of CAP infrastructure assets through the application of modern asset management strategies and a continuous improvement philosophy. CAP places the highest priority on employee safety and health while nurturing a culture that values employee input and involvement.

CAP Asset Management

History:

- 1985 to 2003: Reactive Maintenance
Reactive "fix it when it breaks"
- 2003 to 2012: Maintenance Excellence
Proactive "fix it before it breaks"
- 2013 to 2018 Reliability Excellence
Risk Base "focus on most critical assets"
- 2018 Asset Management
ISO55000 "focus is on all asset classes"



17

Reactive Maintenance 1985 to 2003

Objectives:

- Complete Construction
- Start-up and operate the system
- Deliver Arizona's full Colorado River allocation
- Optimize the use and sale of Electric Power
- Reactive Maintenance *"fix it when it breaks"*



18

Reactive Maintenance

Results:

- Decreasing System Reliability
- Increasing Maintenance Cost
- Poor Safety Record



Reactive Maintenance

Results:

- Aging Infrastructure
- Aging Workforce
- Assets in Control of the Organization



CAP Vision: Maintenance Excellence

Objectives:

- Proactive Maintenance *“fix it before it breaks”*
- Gain control of the Asset
- Reduce accident and injuries
- Increase system capacity
- Manage the Maintenance budget

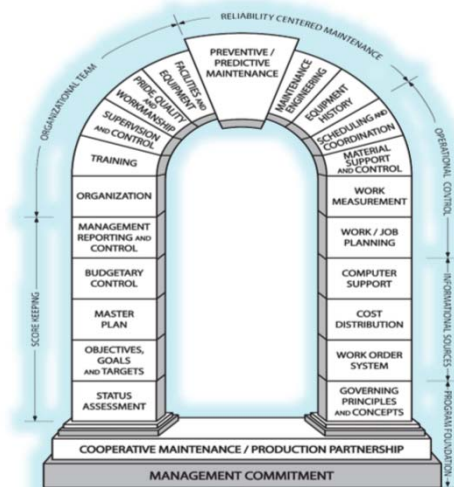


21

Maintenance Excellence

Description:

A broad spectrum of business processes, best practices intended to improve the life cycle cost, and performance of industrial and infrastructure assets.



Maintenance Excellence

Maintenance Engineering

Mark Wilmer Unit Circuit Breaker 3 Year PM

Maintenance Task Procedure

48 □ Measure and record the clearances on the Trip and Close latches shown on (A, B, C, and D), the coils – E and the control valve push rods – F. Compare measured values to minimum and maximum listed on Figure 15.

A Trip _____	B Trip _____	C Trip _____
Close _____	Close _____	Close _____
D Trip _____	E Trip _____	F Trip _____
Close _____	Close _____	Close _____
_____	Total travel _____	Total travel _____

49 □ Lubricate the control block cams, linkage joints, pivots, shafts, and areas indicated with a red dot. (Item H)




Figure 16

Little Hanguana Unit Circuit Breaker Air-Magnetic 3 Year PM.doc

Maintenance Task Procedure

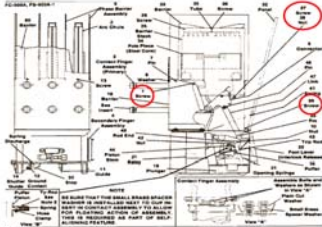


Figure 6




Figure 7




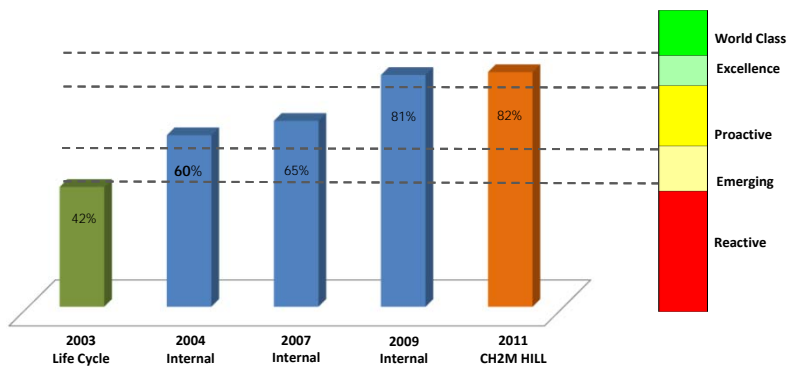
Figure 8

- Barriers
- Arcing Contacts
- Main Contacts
- Arc Contact Joint
- Disconnect Arm Joint



Maintenance Excellence

Assessment History



Accomplishments



Planned Work = Safe Work



CAP Vision: Reliability Excellence

Objectives:

- Optimize the Maintenance Excellence
- Asset criticality relative to safety, operations, budget
- Reliability Centered Maintenance (RCM)
- Condition Based Monitoring technologies
- Risk based process *"focus on the most critical assets"*

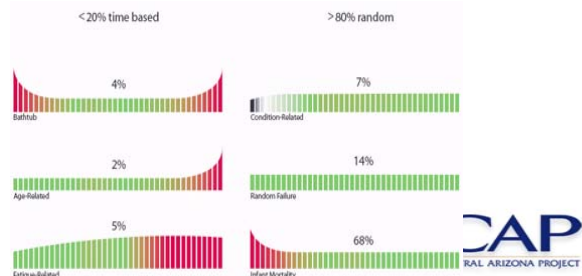
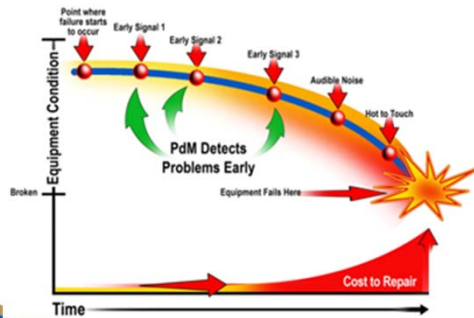


28

Reliability Excellence

Reliability Engineering:

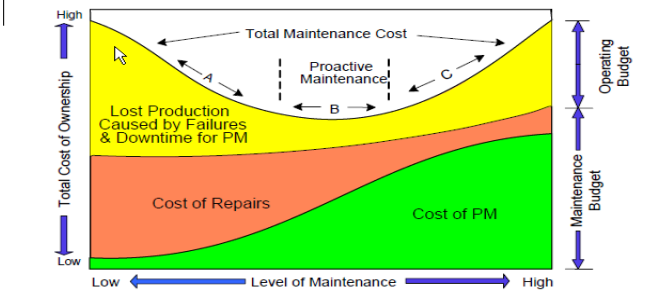
- Condition Based Monitoring (CBM)
- Preventive Maintenance Optimization (PMO)
- Date driven Asset Health Score



Reliability Excellence

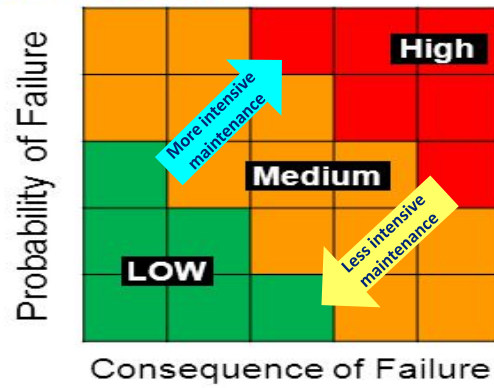
Total Cost of Ownership

Maintenance Impact on Total Cost of Ownership



Reliability Excellence

Risk Based: Asset Criticality Analysis



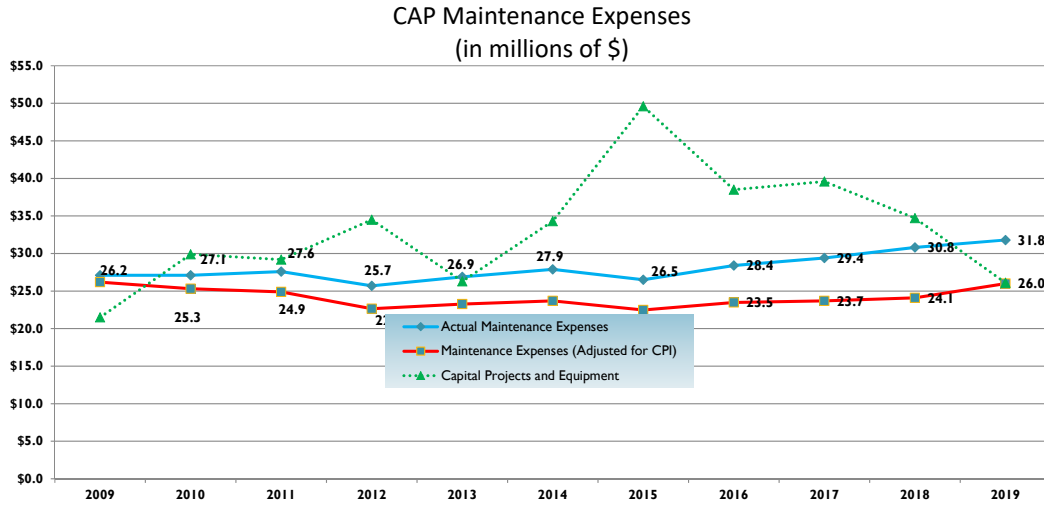
Reliability Excellence



1. 2015 Best Leadership for Reliability Program
2. 2018 Best Asset Management Program
3. 2018 North American Maintenance Excellence Award

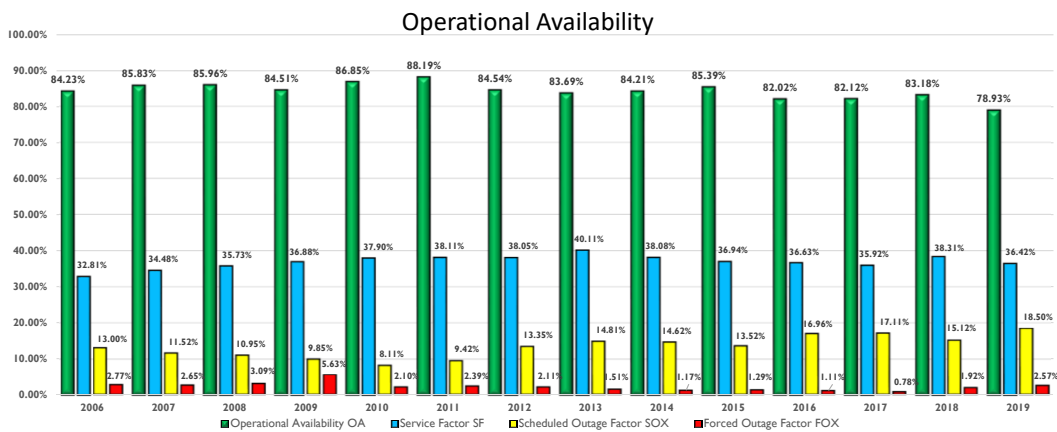


Budget Performance



33

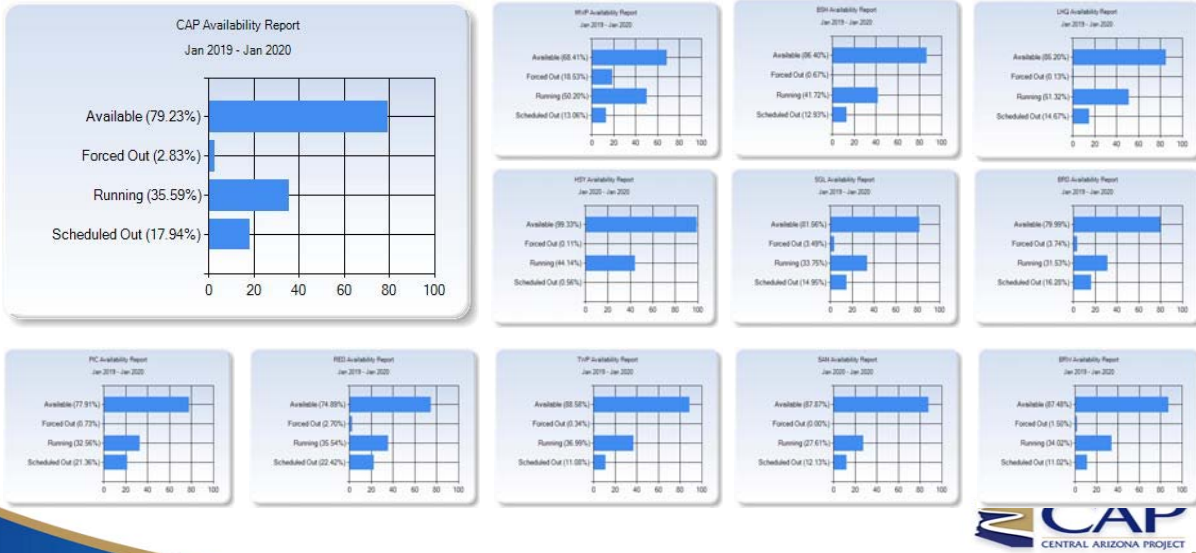
System Operations Performance



2019	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Annual Avg
Sox Actual	16.50%	11.08%	12.44%	9.42%	7.61%	20.70%	23.27%	18.64%	10.98%	13.13%	56.70%	22.19%	18.56%
Service Factor	28.69%	39.18%	28.46%	46.94%	44.29%	44.73%	43.86%	44.76%	43.10%	34.54%	19.76%	18.73%	36.42%
Fox Actual	3.53%	3.13%	2.09%	2.10%	1.93%	1.36%	2.55%	2.58%	3.09%	2.40%	2.30%	3.76%	2.57%
Operational Availability	79.97%	85.79%	85.47%	88.48%	90.46%	78.56%	74.18%	78.77%	85.93%	84.46%	41.00%	74.04%	78.93%

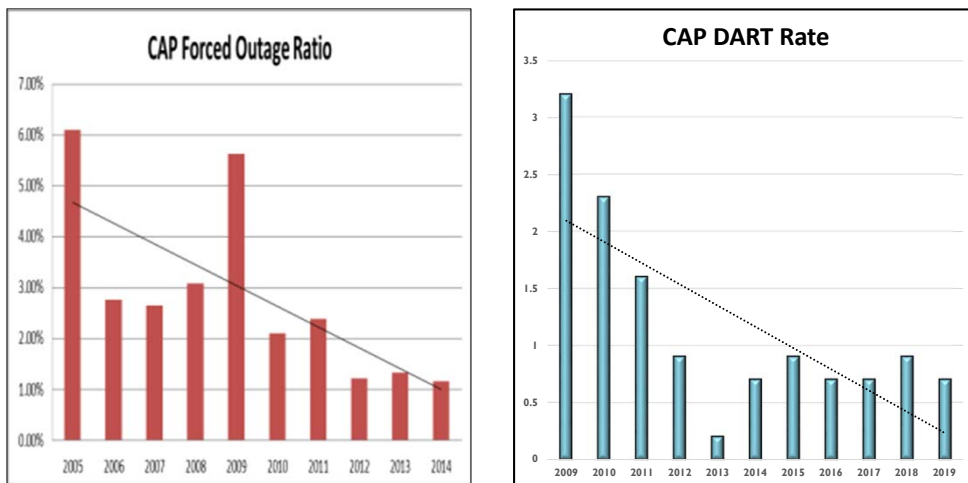
34

Plant Operations Performance



35

Forced Outage & Safety Performance



36

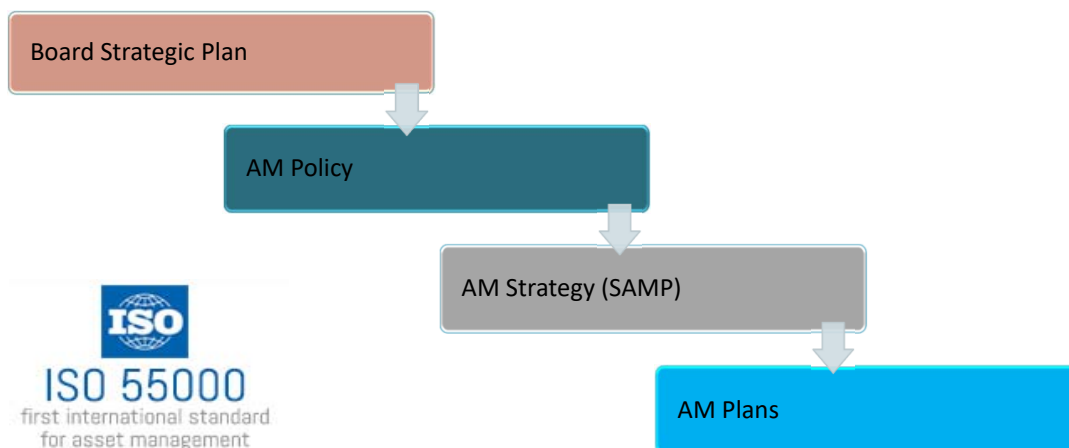
CAP Vision: Asset Management

Objectives:

- ISO 55000 Standard for Asset Management
- Optimize Reliability Excellence Program
- Condition Based Monitoring (CBM) technologies
- Automate CBM data collection and analysis



Asset Management (AM)

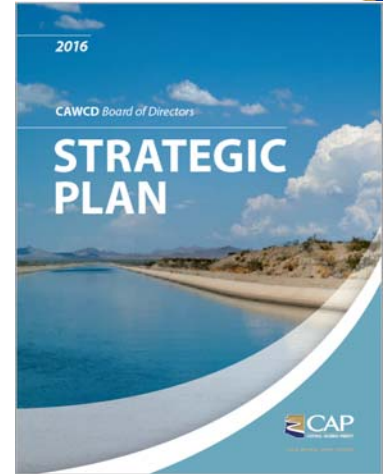


Asset Management

Board Strategic Plan:

Effectively Manage, Operate, and Maintain CAP Assets

- Provide reliable and cost-effective water deliveries
- Continue to address aging infrastructure
- Achieve industry best maintenance practices

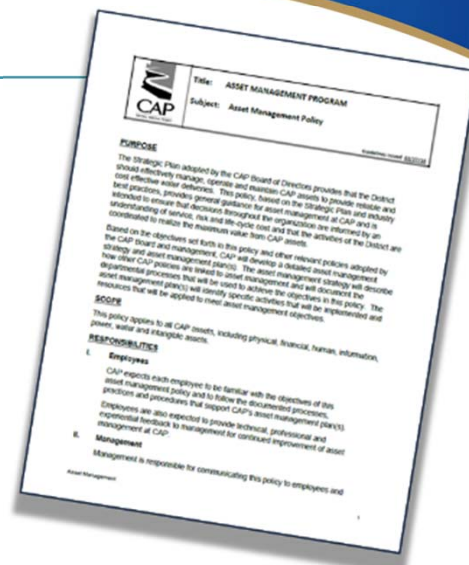


39

Asset Management Policy

Policy:

- Drafted by Cross-Functional Steering Committee
- Management Objectives for Each Asset class
- Understand of Service, Risk and Life-Cycle Cost
- Approved by Management Council



40

Asset Management



Asset Classes Covered:

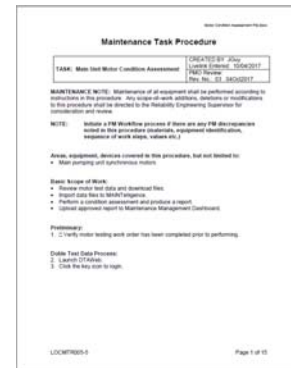
- Physical
- Financial
- Power
- Water
- Human
- Information
- Intangible



Asset Management

Plans:

- Biennial Budget
- Long-Range Financial Plan
- Long-Range Capital Plan
- Long-Range Maintenance Plan
- Equipment Maintenance Plans
- Annual Operating Plan
- Risk Registers



Opportunities to Learn



Infrastructure Health

Challenges:

- Critical Infrastructure
- Employee Retention
- Emerging Technology



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Questions

CentralArizonaProject.com



Agenda Number 7

CONTACT: Angie Lohse Ken Seasholes
623-869-2572 623-869-2476
alohse@cap-az.com kseasholes@cap-az.com

MEETING DATE: Thursday, March 5, 2020

AGENDA ITEM: Report on Recovery Planning Activities, Agreements and Technical Studies (*Water Supply: Reliability of the CAP Water Supply*)[^] - Lohse

LINKAGE TO STRATEGIC PLAN, POLICY, STATUTE OR GUIDING PRINCIPLE:

None

PREVIOUS BOARD ACTION/ACTIVITY:

January 3, 2019	CAGRD & Underground Storage Committee - Update on Recovery Planning Advisory Group
February 21, 2019	CAGRD & Underground Storage Committee - Report on Recovery Planning and Recovery Implementation
May 16, 2019	CAGRD & Underground Storage Committee - Report on Recovery Planning and Recovery Implementation
October 17, 2019	CAGRD & Underground Storage Committee - Report on Recovery Planning
February 20, 2020	CAGRD & Underground Storage Committee - Report on Recovery Planning and Recovery Implementation

ISSUE SUMMARY/DESCRIPTION:

CAP Staff continue to implement recovery planning including participation in on-going recovery planning processes, recovery agreements and feasibility studies at Tonopah Desert Recharge Project (TDRP).

CAP staff participated in ten meetings of the Recovery Planning Advisory Group (RPAG) in 2018 and 2019. RPAG is a broadly represented 14-member working group providing input to the Arizona Department of Water Resources, Arizona Water Banking Authority, and CAP, as the three entities update aspects of the 2014 Joint Recovery Plan.

Several recovery agreements have been finalized to secure recovery capacity including the recent agreements with four agricultural districts in the support of the Drought Contingency Plan.

Finally, CAP Staff have received the “Results of the Initial Geophysical Investigations in Support of Recovery Well Planning” from Montgomery & Associates. Potential sites for local aquifer characterization are currently being assessed.

ATTACHMENTS:

1. Presentation

Recovery Planning Update

CAWCD Board
March 5, 2020

Angie Lohse, Resource Planning & Analysis



Recovery Planning Update

- Ongoing Planning Processes
- Recovery Agreements
- Technical Studies



The collage displays three key documents related to the recovery planning process. At the top is the 'Recovery Planning Advisory Group' report, which outlines the group's formation and objectives. Below it is a report from Montgomery & Associates, dated January 29, 2020, titled 'Results of Initial Geophysical Investigations in Support of Recovery Well Planning' for the Tonopah Desert Recharge Project in Maricopa County, Arizona. To the right is a 'REPORT' document from CAP, detailing the development of the recovery plan and the role of the advisory group.

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Recovery Planning Advisory Group



- Convened in 2018 by ADWR, AWBA and CAP to further refine recovery implementation
- 14 members representing a board-based group of stakeholders
 - Representatives from AMWUA, SAWUA, GRIC, SRP, APS, On-River users, private water companies, and Pinal Ag
- 10 meetings throughout 2018 - 2019
 - Updated modeling with DCP
 - Recovery methods & opportunities
 - Near-term recovery options
 - Credit distribution policy issues
- Update to the 2014 Joint Recovery Plan



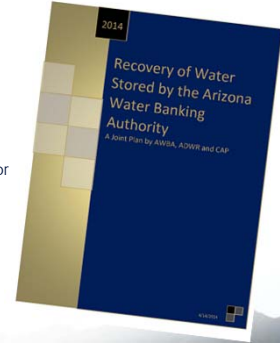
PROTECTING ARIZONA'S WATER SUPPLIES for ITS NEXT CENTURY



Banking Water Now for Arizona's Future

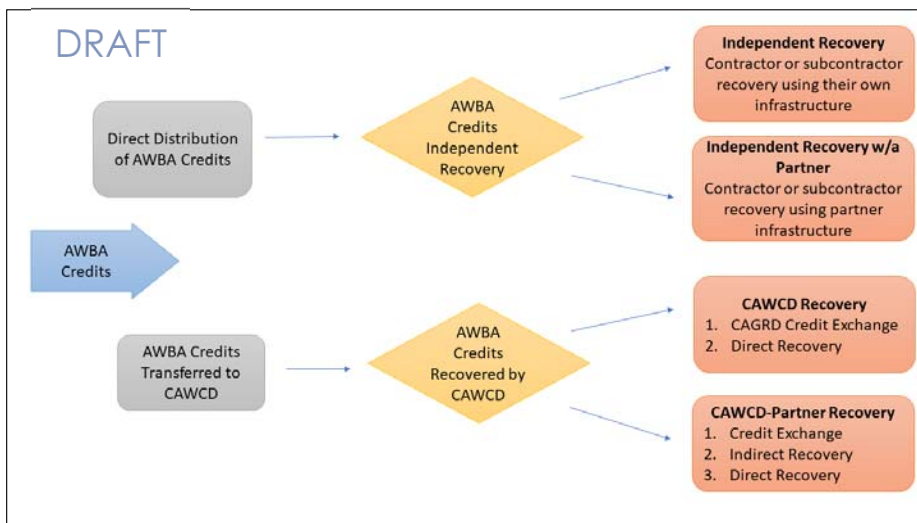


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Independent Recovery



Recovery Agreements

- Arizona Water Company Exchange Agreement (2017)
- CAWCD Board Policy regarding CAGR’s long-term contract (2017)
- Roosevelt Water Conservation District Recovery Agreement (2018)
- Tucson Water Exchange Agreement (2018)
- Pinal County Agricultural Recovery Agreements with Central Arizona IDD, Maricopa-Stanfield IDD, New Magma IDD and Queen Creek ID (2019)
- Hohokam Irrigation and Drainage District (pending)

		Volume (AF)
PHOENIX AMA		
	CAGR	7,996
	NEW MAGMA IDD	1,500
	QUEEN CREEK ID	1,750
	ROOSEVELT WATER CONSERVATION DISTRICT	10,000
	SUBTOTAL	21,246
PINAL AMA		
	ARIZONA WATER COMPANY	2,500
	CENTRAL ARIZONA IDD	5,250
	MARICOPA-STANFIELD IDD	5,000
	SUBTOTAL	12,750
TUCSON AMA		
	TUCSON WATER	10,000
	SUBTOTAL	10,000
TOTAL		43,996

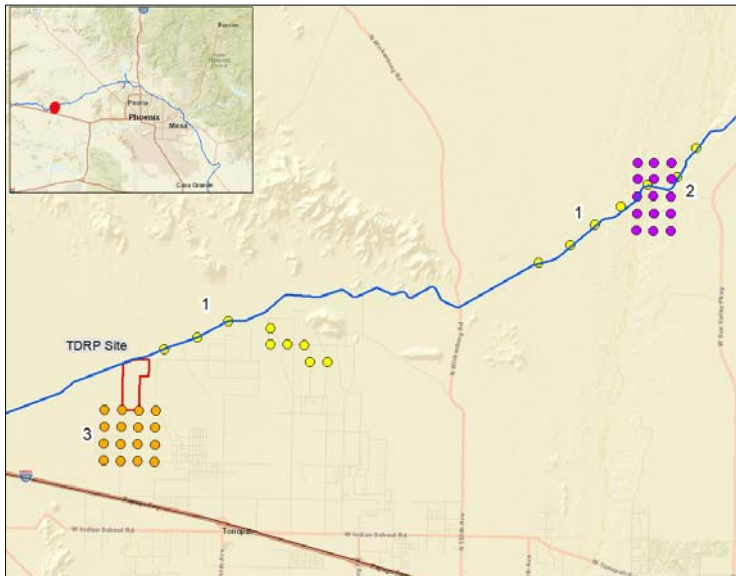


Technical Studies

- 2009 – Preliminary Recovery Plan
 - 100,000 AF for 20 years
- 2015 – Updated Recovery Plan
 - 480,000 AF 26 years
 - 9 recovery wells
 - \$298 to \$444/AF
- 2016 and 2017 – Boreholes and test well
- 2018 and 2019 – Alternative Recovery Locations
- 2019 – Geophysical Study



Alternative Recovery Locations



Next Steps



- RPAG
 - Develop and finalize the Update to the 2014 Joint Recovery Plan
 - Refine recovery planning and analysis
- Work to secure additional partnership agreements
 - Hohokam Irrigation and Drainage District
- Perform additional technical work in the vicinity of TDRP

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Questions?

A landscape photograph showing a winding canal in a desert environment. The canal is filled with blue water and is bordered by a dirt path. The background features hazy mountains under a bright sky. The bottom of the image is overlaid with a blue gradient bar.

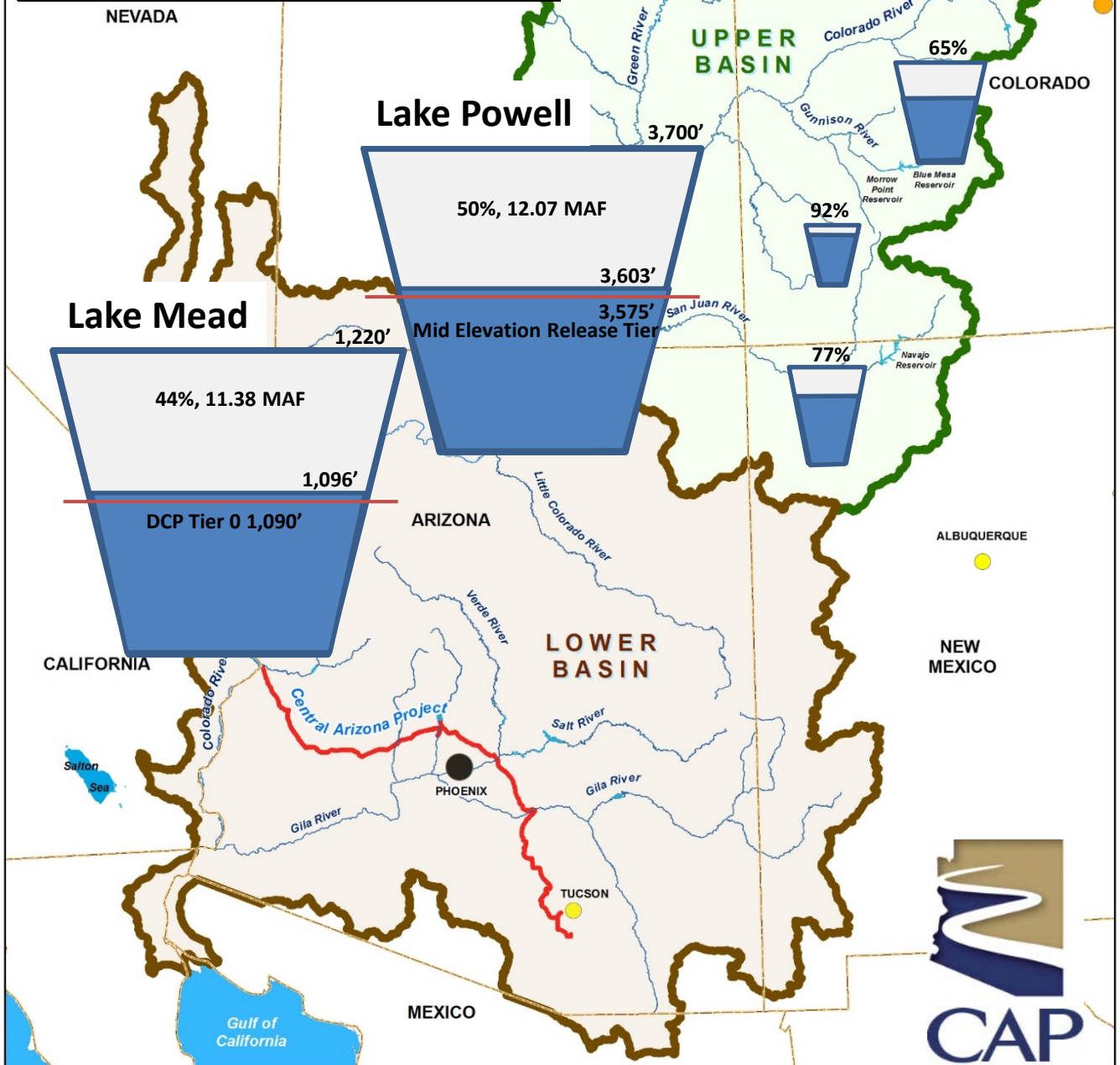
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Colorado River Water Supply Report

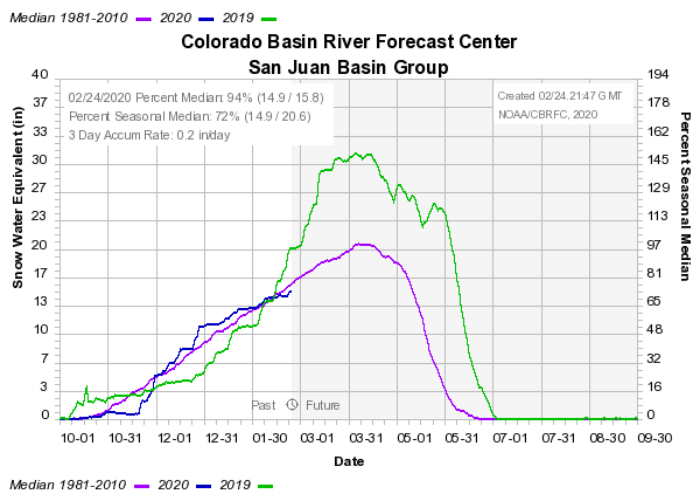
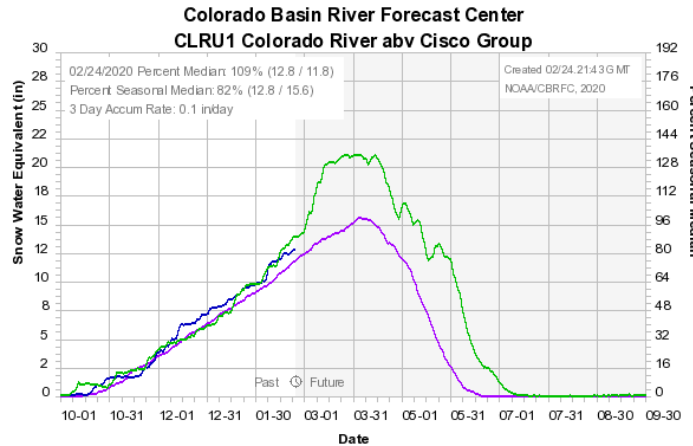
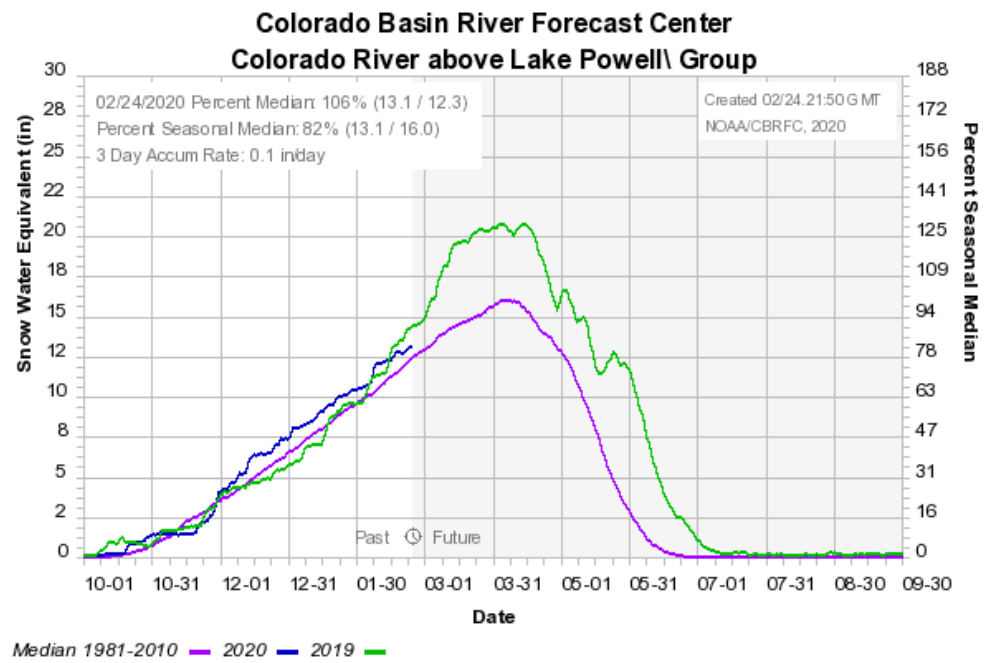
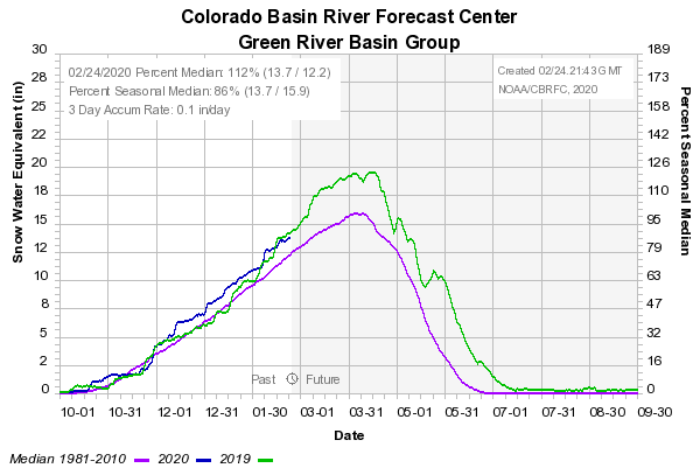
System Contents: 28.79 MAF

2/23/20

Reservoir Capacities (MAF)			
Reservoir	Current	Change	Maximum
Lake Mead	11.38	+ 0.15	25.90
Lake Powell	12.07	- 0.25	24.30
Flaming Gorge Reservoir	3.24	- 0.04	3.75
Navajo Reservoir	1.30	- 0.01	1.70
Blue Mesa Reservoir	0.54	- 0.02	0.83
Fontenelle Reservoir	0.15	- 0.03	0.34
Morrow Point Reservoir	0.11	0.00	0.12



CENTRAL ARIZONA PROJECT



As of 2/24/2020, snow accumulation in the Green River Basin (contributes ~33%) is at 13.7 in. (blue line), which is 112% of the 30-year median for this date of 12.2 in. (purple line) and is just below last year's amount (green line) for this date.

Snow accumulation in the Upper Colorado River Basin (contributes ~42%) to date is at 12.8 in., which is 109% of the 30-year median for this date of 11.8 in.

Snow accumulation in the San Juan River Basin (contributes ~13%) to date is at 14.9 in., which is 94% of the 30-year median for this date of 15.8 in.

For the overall Colorado River Basin above Lake Powell, the snow accumulation to date is at 13.1 in., which is 106% of the 30-year median for this date of 12.3 in.

Probability of System Conditions - February 2020 (Observed, Stress Test)

	2020		2021		2022		2023		2024	
Lake Powell Release > 8.23 MAF	3	3	57	55	70	52	60	52	60	51
Equalization > 8.23 MAF	3	3	11	5	33	8	22	11	25	14
Upper Elevation > 8.23 MAF	N	N	46	50	37	44	38	41	35	37
Lake Powell Release = 8.23 MAF	97	97	43	45	26	27	22	17	22	14
Equalization = 8.23 MAF	0	0	0	0	0	1	1	0	1	1
Upper Elevation = 8.23 MAF	97	97	43	45	26	26	21	17	20	12
Mid-Elevation = 8.23 MAF	0	0	0	0	0	0	0	0	1	1
Lake Powell Release < 8.23 MAF	0	0	0	0	14	22	18	31	18	32
Upper Elevation < 8.23 MAF	0	0	0	0	0	0	0	0	1	1
Mid-Elevation = 7.48 MAF	0	0	0	0	14	22	18	31	17	31
Lake Mead Elevation Reduction Tiers	100	100	80	80	82	89	72	85	69	85
DCP Tier 0 (1090'-1075')	100	100	80	80	71	74	41	40	32	30
Tier 1 Shortage (1075'-1050')	0	0	0	0	11	15	29	41	27	32
Tier 2 Shortage (1050'-1025')	0	0	0	0	0	0	2	4	9	22
Tier 3 Shortage (< 1025')	0	0	0	0	0	0	0	0	1	1

Source: U.S. Bureau of Reclamation

Observed Record: 1906-2018

Stress Test Period: 1988-2018

Update on Intentionally Created Surplus (ICS)

Chuck Cullom
Colorado River Programs

March 5, 2020



Types of ICS

- **System Efficiency ICS*** – projects financed to save water that would otherwise be lost from the Mainstem
- **Extraordinary Conservation ICS (EC ICS)*** – conservation projects to provide a water supply in place of or to reduce an existing Mainstem water use
- **Binational ICS (BICS)*** – cooperative measures which allow Mexico to create Intentionally Created Mexican Allocation (ICMA) and a program to allow the conversion of ICMA to BICS
- **DCP ICS** – conversion of System Efficiency ICS, EC ICS, or BICS that can be used to meet DCP Contributions
- **Tributary Conservation ICS** – purchase of Colorado River System tributary water rights that have been in use for considerable amount of time
- **Imported ICS** – conveyance of non-Colorado River System water
- **Developed Shortage Supply** – separate but similar to ICS; Tributary or Imported ICS water supplies can be used during shortage conditions with prior approval

* CAP has created this type of ICS



ICS – Lower Basin State Limits

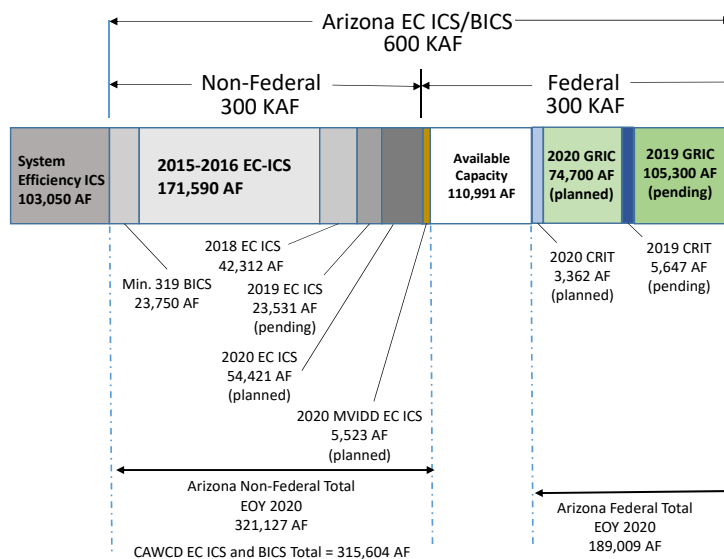
2007 Guidelines and DCP Requirements on EC ICS, BICS, and DCP ICS*

	Arizona	California	Nevada
Annual Creation Limitations (AF/yr) (with capacity flexibility between states)	100,000	400,000	125,000
Annual Release (Delivery) Limitations (AF/yr)	300,000	400,000	300,000
Maximum Accumulation Limitations (AF)	600,000	1,650,000	450,000

* Does not include System Efficiency ICS



Arizona ICS Accumulation for DCP – Planned EOY 2020



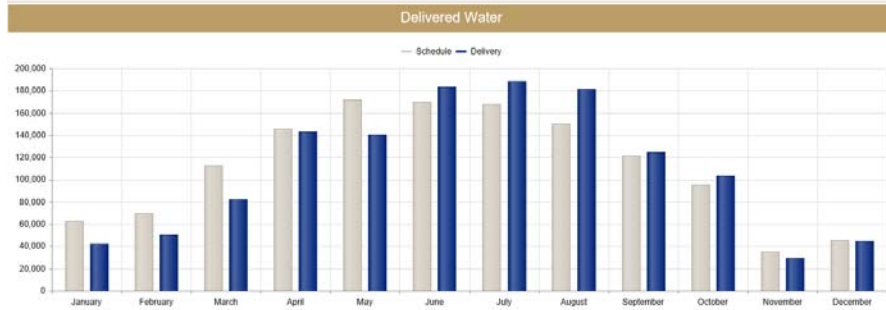
Water Operations Update



Don Crandall
CAP Water Control Manager
05 March 2020

2019 Water Deliveries

Water Deliveries for 2019 in acre-feet			
Annual Schedule as of Today	Deliveries through December	% Delivered	Balance to Deliver
1,347,530	1,314,350	98%	33,180



Turn Back Water Summary

Recent History of Turnback Water

	2015	2016	2017	2018	2019
Successful Remarket	41,148	279	6,259	9,167	6,120
Unsuccessful Remarket	9,511	6,187	-	-	5,313
Not Delivered ¹	38,704	9,070	9,570	11,351	33,278
Total	89,363	15,536	15,829	20,581	44,711
% of Total Deliveries	6.2%	1.1%	1.2%	1.4%	3.4%

1. Not delivered includes 98 AF of over-delivery

2019 Water Delivery Summary

	2019 AOP	2019 Actual
CAP Delivery Supply	1,595,000 AF	1,595,000 AF
Long-term Contract ¹	-	1,036,947 AF
	1,193,896 AF	130,683 AF
CAP Excess Supply²	401,104 AF	427,370 AF
Ag Settlement Pool	-	256,143 AF
Other Excess Supply²	127,250 AF	171,227 AF
Lake Mead Contribution ³	-	112,099 AF
CAGR D Replenishment Obligation	-	14,472 AF
AWBA	-	0 AF
CAGR D Replenishment Reserve	-	6,065
Bureau of Reclamation	-	0 AF
Not Delivered ⁴	0 AF	38,591 AF

Notes

- Includes Long Term Contract System Conservation (GRIC & FMYN).
- Totals for actuals result from actual operations and Contractor/Subcontractor actions. Supply totals shown are the artifact of actual operations based on committed delivery supply water not delivered; Water remains in system storage to be part of the CAP Delivery Supply in a subsequent year.
- Reflects estimated volume for 2019 but will be finalized after Reclamation completes decree accounting in May 2020.
- Includes water ordered but unsuccessfully remarketed or undelivered and over-delivered water orders at end of year.

2020 Operations Update

- Agua Fria Inflow to Lake Pleasant
- MWPU06 Return to Service April
- Diversions/Deliveries
- Lake Pleasant Elevation

MWPU06 Return to Service

PROJECT MILESTONES

Note: Milestones 4 weeks in the past and 12 weeks in the future

MILESTONE	FINISH	% FINISH
CAP Uncoupled Motor Commissioning	3/12/2020	65%
CAP Coupled Motor Final Acceptance	4/16/2020	25%
CAP Start Up and Testing - Unit 6 Operational	4/17/2020	0%
Transfer Memo to Maintenance	5/12/2020	0%

PROJECT PHOTO

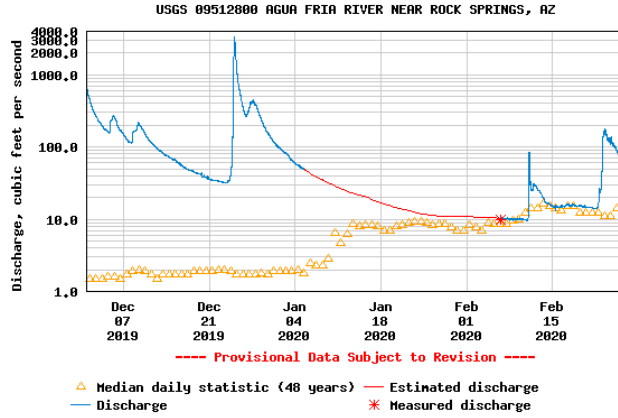
Figure 1: Final Insulation Resistance Testing on Rotor Poles



Agua Fria Inflow into Lake Pleasant

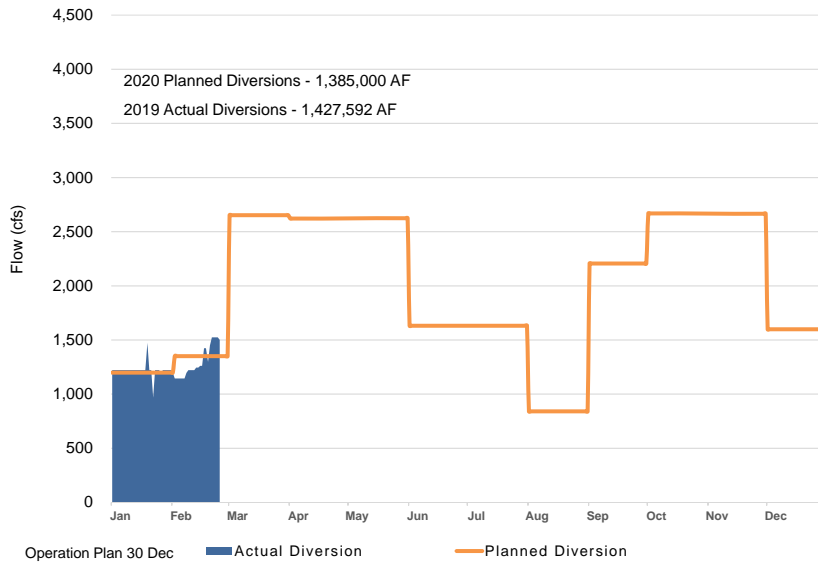
Discharge, cubic feet per second

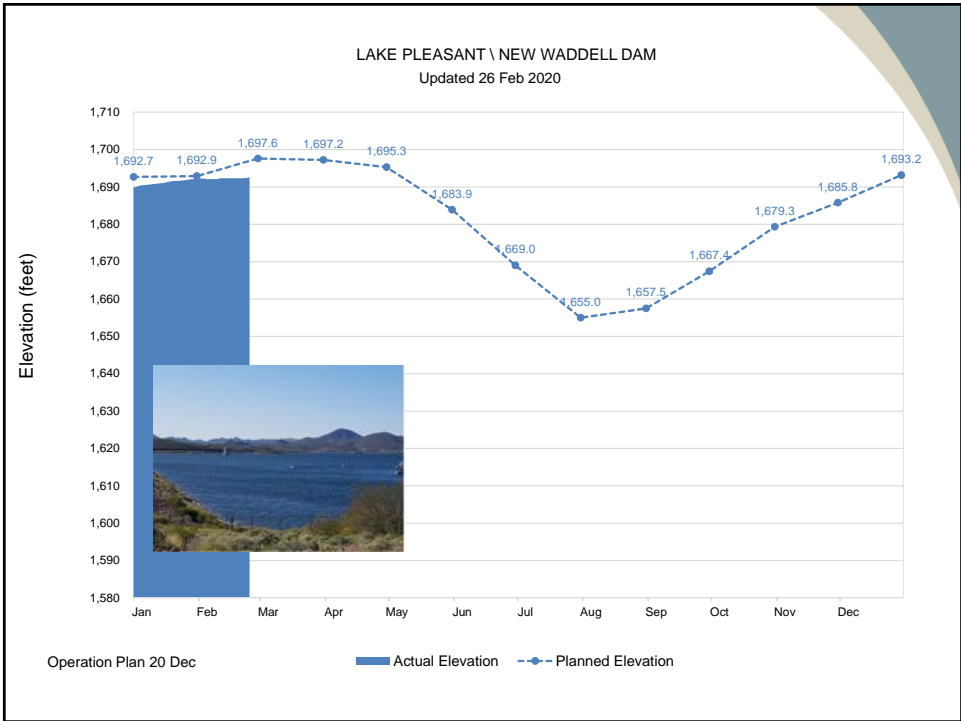
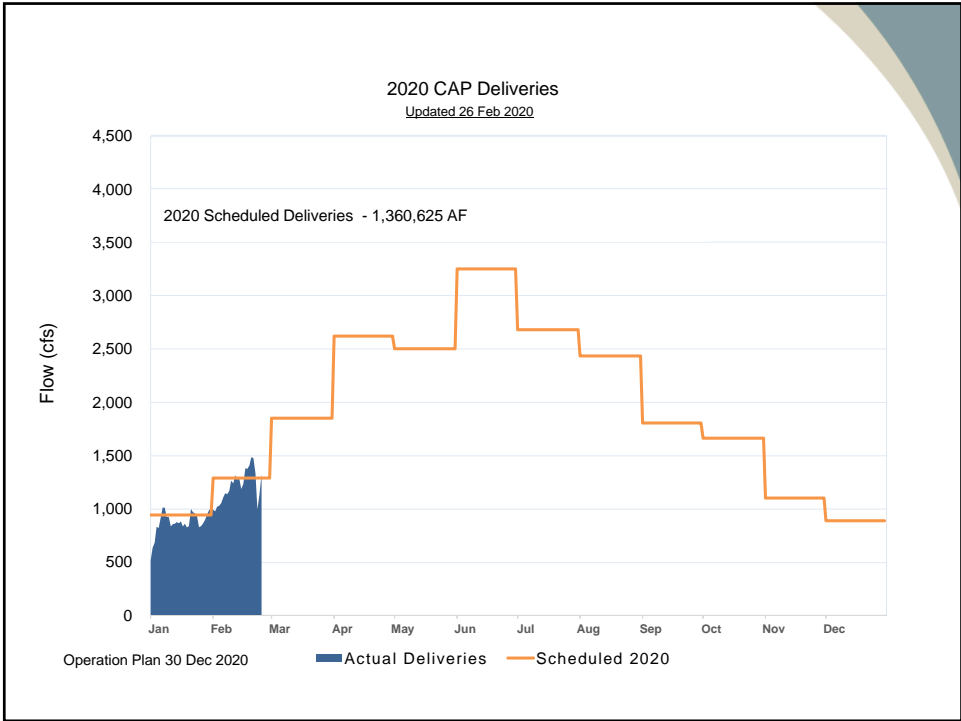
Most recent instantaneous value: 62.3 02-26-2020 13:05 MST



2020 CAP Colorado River Diversions

Updated 26 Feb 2020





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Questions?

CentralArizonaProject.com ~ CAGR.D.com

