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**NOTICE AND FINAL AGENDA OF MEETING OF  
THE ARIZONA WATER BANKING AUTHORITY COMMISSION**

Pursuant to A.R.S. § 38-431.02, notice is hereby given that there will be a meeting of the Arizona Water Banking Authority Commission on Wednesday, **September 4, 2013 at 1:00 p.m.** at the Arizona Department of Water Resources, 3550 North Central Avenue, Phoenix, Arizona 85012, Upper Verde Conference Room. The meeting is open to the general public.

The agenda for the meeting is as follows:

- I. Welcome/Opening Remarks
- II. Approval of Minutes
  - June 19, 2013 meeting
- III. Water Banking Staff Activities
  - Deliveries
  - Recovery planning update
  - Review of Arizona baseline modeling assumptions
  - Re-evaluation of AWBA numeric goals
- IV. Draft 2014 Plan of Operation
  - Discussion of water delivery schedule (Table 2)
  - Water and facility rates
  - Funding availability
  - Public meetings
- V. Action Planning
  - Discussion and potential approval of proposal to purchase long-term storage credits
    - Discussion paper
    - Draft legislative proposal
  - Discussion of proposal to request a general fund appropriation for Indian firming
  - Update on action planning process
- VI. Call to the Public

**Future Meeting Dates:**

[Wednesday, October 16, 2013](#)  
[Wednesday, December 18, 2013](#)

Dated this 3<sup>rd</sup> day of September, 2013

This is a tentative agenda that is subject to change prior to the scheduled meeting date. Please contact the AWBA at (602) 771-8487 24 hrs in advance of meeting for final agenda.

All visitors must use the south elevators; please stop at the 2<sup>nd</sup> floor to sign-in and receive a visitor's badge. Badges are to be displayed at all times. Visitors are also required to sign out and return their badges. Thank you for your assistance.

*Persons with a disability may request a reasonable accommodation, such as a sign language interpreter, by contacting Michelle Moreno at 602-771-8530 or 602-771-8501 (TDD). Requests should be made as early as possible to allow time to arrange the accommodation.*

I. Welcome/Opening Remarks

**NOTES:**

On August 16<sup>th</sup>, ADWR, CAWCD, and AWBA issued a joint press release in response to the Bureau of Reclamation's August 2013 24-month study that projects releases from Lake Powell to Lake Mead in water year 2014 will be 7.48 MAF as opposed to the historic releases of 8.23 MAF. Projections show that releases in 2015 could also be 7.48 MAF. If this is the case, it could cause the elevation in L. Mead to fall below the 1,075 ft elev., resulting in the Secretary declaring a shortage to the Lower Basin in 2016.

While this is not expected to trigger a firming obligation for the AWBA, it would impact lower priority CAP water users including the AWBA, CAGR, and to an extent, irrigation districts that receive non-Indian agricultural pool water.



## PRESS RELEASE

FOR IMMEDIATE RELEASE:

August 16, 2016

CONTACTS:

Crystal Thompson, CAP, 602-321-9349, [cthompson@cap-az.com](mailto:cthompson@cap-az.com)

Michelle Moreno, ADWR, 480-251-7621, [mamoreno@azwater.gov](mailto:mamoreno@azwater.gov)

### **Colorado River Shortage Will Have No Direct Impact On CAP City Water Supplies**

Phoenix – August 16, 2013 - Today, the U.S. Bureau of Reclamation released its monthly Operation Plan for Colorado River System Reservoirs 24-Month Study (Study), which projects that releases from Lake Powell into Lake Mead in water year 2014 (October 2014 through September 2015) will be reduced by 9% as compared to 2013 (7.48 million acre-feet versus 8.23 MAF). The study also indicates that releases will most likely be 7.48 MAF again in 2015. These back-to-back reductions could cause Lake Mead's elevation to fall below the 1,075 foot elevation by the end of 2015, which would result in the U.S. Secretary of the Interior declaring a Lower Basin shortage for 2016. These projections are subject to change as the year progresses, particularly if there is a good winter snowpack in 2014 or 2015.

If there is a Colorado River shortage in 2016, there would be no direct impact to the water supplies for cities, residential water users, and Native American Indian Tribes. The Central Arizona Project's (CAP) deliveries would be reduced by 320,000 acre-feet, which is about 20% of the CAP supply in recent years. This reduction would impact lower priority CAP users, including underground storage by the Arizona Water Banking Authority and Central Arizona Groundwater Replenishment District, as well as non-Indian agriculture.

"While the possibility of a shortage declaration is significant, Arizona has been planning and preparing for just such a condition for decades," said Sandra Fabritz Whitney, Director of the Arizona Department of Water Resources and Chairman of the Arizona Water Banking Authority. "Arizona has led the nation in conservation efforts and long-term water management, including storing millions of acre-feet of water underground as a backup supply."

David Modeer, General Manager of the CAP, added that, "While all of us in Arizona should continue our conservation efforts, this also serves as a call to the federal government and all Colorado River water users that we need to work together to seek creative management solutions in the short term and augmentation of supplies in the long-term."

###

II. Approval of Minutes of Meeting

**NOTES:**

Move approval of June 19, 2013 AWBA meeting minutes

**ACTION:**

Approve minutes with any needed corrections.



**ARIZONA WATER BANKING AUTHORITY**  
**Draft Minutes**

**June 19, 2013**

**Arizona Department of Water Resources**



**AUTHORITY MEMBERS**  
Sandra Fabritz-Whitney, Chairman  
Maureen R. George, Vice-Chairman  
Clifford A. Neal, Secretary  
Jim Hartdegen  
John Mawhinney

**EX OFFICIO MEMBERS**  
The Honorable Andy Tobin  
The Honorable Gail Griffin

### **Welcome/Opening Remarks**

Vice-Chairman Maureen George, chairing the meeting on behalf of Sandra Fabritz-Whitney, welcomed attendees. All Authority members were present except *ex-officio* members, Senator Gail Griffin and Speaker of the House Andy Tobin. Chairman Sandra Fabritz-Whitney and John Mawhinney attended via teleconference.

### **Approval of Minutes**

Vice-Chairman George requested motions to approve the minutes of the March 20, 2013 regular quarterly meeting of the AWBA and the minutes from the April 24, 2013 Special Meeting. Mr. Neal moved to approve each set of minutes. Mr. Hartdegen seconded each motion, and the Authority approved both sets of minutes.

### **Water Banking Staff Activities**

**Deliveries.** Ms. O'Connell, Manager of the AWBA, referring to the monthly delivery charts, explained that AWBA deliveries through May are nearly on target with about one-third of deliveries already met. Deliveries to the Phoenix AMA are now expected to occur at the end of the year. Storage issues are not anticipated. In response to a question from Mr. Neal about where storage will occur in the Phoenix AMA, Ms. O'Connell replied: 6,000 acre-feet is scheduled for storage at Tonopah Desert Recharge Project (TDRP), 7,200 acre-feet at Queen Creek Irrigation District and 1,700 acre-feet at Superstition Mountains Recharge Project.

**Interstate Water Banking.** Ms. O'Connell briefed the members on the Third Amended and Restated Interstate Water Banking Agreement between the AWBA, Southern Nevada Water Authority (SNWA) and the Colorado River Commission of Nevada (CRCN). She noted the AWBA approved the draft agreement at the March meeting, authorizing the Chairman to sign the agreement after it was approved and signed by the SNWA and CRCN. Both parties subsequently approved the agreement and it was fully executed on May 20<sup>th</sup>. With that, Ms. O'Connell explained, the AWBA no longer has an obligation to accrue the 1.25 million acre-feet of credits. However, the parties can still agree to store water on an annual basis, which could include Nevada's unused apportionment. Future arrangements would be on a pay as you go basis.

**CAWCD 4¢ *ad valorem* tax.** Ms. O'Connell stated that at the May 2<sup>nd</sup> CAP Board meeting, the Board resolved to draw \$45 million, from the 4¢ Water Storage Tax Fund, to replenish CAWCD's strategic reserves. At that meeting, the Board was also given a presentation on the property tax rates for the upcoming year. The discussion included options for depositing collections from the 4¢ Water Storage Tax into various funds held at CAP. In response, Ms. O'Connell sent a letter to CAP conveying the AWBA's concerns about using the 4¢ Water Storage Tax as a way to address future financial shortfalls. The letter also requested the Board's water storage tax resolution include a provision recognizing that AWBA water storage is a part of CAP's OM&R costs..

Ms. O'Connell noted she made similar comments at the Finance, Audit, and Power (FAP) Committee meeting also held in May. With regard to the resolution, she had pointed out that while there is an understanding today that AWBA storage is included in OM&R that might not be the case in the future. She also requested that the language be kept general, because the AWBA is currently authorized to use the funds for things other than CAP M&I firming today and there might be other things the AWBA could use the funds for in the future that have not yet been identified. CAP staff, including legal staff, assured the FAP Committee that the language in the resolution was sufficient and that the addition was not needed since a paper trail had already been established that recognizes AWBA water storage as a part of CAP's OM&R. The FAP committee approved the resolution as is without making Ms. O'Connell's requested changes. The CAP Board subsequently adopted the resolution at the June meeting without the AWBA's requested changes.

Vice-Chairman George asked whether CAWCD has maintained its sentiment on future use of the 4¢ tax as discussed at the AWBA's April meeting. Ms. O'Connell responded that CAWCD staff had indicated that they do not foresee additional use of the 4¢ tax monies, but could not commit to refrain from using the funds for other purposes because there are many unknowns associated with the Navajo Generating Station. Some Commission members felt the AWBA should therefore make every effort to spend the unused 4¢ tax monies. Mr. Neal pointed out that CAP also raised its base ad valorem tax rate to 10¢, which represents an increase of over 60% to cover future energy cost increases. He lauded CAWCD's efforts saying CAWCD is collecting as much as it can under its taxing authority.

Commission members expressed concern that the CAWCD staff and Board have excluded any mention of the AWBA in the 4¢ tax resolution and feel that in doing so, it leaves the AWBA in a vulnerable position. Chairman Fabritz-Whitney agreed indicating that while it would not give the AWBA a guarantee, it would give the AWBA more certainty. Commission members asked Chairman Fabritz-Whitney to meet with the CAWCD Board President and perhaps General Manager, David Modeer, to discuss the AWBA's concerns.

**Recovery Planning.** Ms. O'Connell provided the Commission with an update on the joint recovery planning process. The group has made a lot of progress and is coming together on strategies for a Plan. The group will continue to look to the Ad Hoc group for feedback. Commission members asked about the time frame for completion so water could be stored in optimal locations for future recovery. Ms. O'Connell explained that group will be meeting next week to discuss timing. Vice-Chairman George asked Ms. O'Connell to inform members of the agreed upon time frame.

**Update on Indian Settlements.** Tim Henley, consultant for the AWBA, gave the Authority members an update on Hualapai Tribe and Navajo Nation/Hopi Tribe settlements. Regarding the Hualapai Tribe, he indicated that settlement negotiations are continuing and that firming is being discussed but within the limits of the Arizona Water Settlement Act. It is unlikely the Tribe's claims would be settled this year.

The Navajo Nation/Hopi Tribe settlement discussions have been discontinued. Instead, the Navajo Nation decided to litigate the lawsuit it filed against the Secretary of Interior in 2003 in which they claim that DOI breached its fiduciary duty to the Nation by failing to determine the Nation's rights to the waters of the Lower Colorado River. The Nation is requesting the court hold unlawful and set aside certain operations of the Lower Colorado River, including interstate banking regulations and the Storage and Release Agreement, because the Secretary failed to consider the needs of the Nation and the Tribe for Colorado River water. ADWR has intervened as a defendant in the lawsuit on behalf of the State of Arizona. Other interveners include CAP and SRP, the Arizona Power Authority, Nevada, Metropolitan Water District of Southern California, Imperial Irrigation District and the Coachella Valley Water District.

### **2012 Annual Report**

Vice-Chairman George asked Ms. O'Connell and Terri Sue Rossi, Technical Administrator for the AWBA, to present the 2012 Annual Report and Ten-Year Plan.

**Annual Report.** Ms. O'Connell presented the Annual Report, the details of which are available in the Annual Report itself and the related PowerPoint presentation.

Highlights include:

- AWBA delivered 134,000 acre-feet for storage in 2012; 125,503 acre-feet of credits accrued (73,912 acre-feet in Phoenix AMA, 19,192 acre-feet in Pinal AMA, 32,399 acre-feet in Tucson AMA)
- Revenues collected were about \$3.9 million; expenditures were \$17.5 million including \$13.6 million in 4¢ tax monies used to offset water delivery costs for storing water
- Cumulative credits accrued by AWBA to date are 3.8 million acre-feet of credits (3.2 million acre-feet for Arizona uses and 600,000 acre-feet for Nevada uses)

Ms. O'Connell also gave an overview of the 2013 Plan of Operation indicating that the total supplies available to the pool shared by the CAGR, the federal government and the AWBA was around 61,371 acre-feet. Of that volume, the AWBA Plan of Operation includes 51,546 acre-feet, 1,000 of which will be delivered to the Southside Replenishment Bank. Ms. O'Connell noted that this volume is the smallest amount of water made available to the AWBA in its history.

Mr. Mawhinney pointed out an error on page 12 indicating a \$3 million contribution for the construction of the White Mountain Apache Tribe Rural Water System that should instead say \$2 million. Ms. O'Connell noted that it was a typographical error that had already been corrected.

Mr. Neal asked if the \$45 million transferred by CAWCD to CAP's strategic reserve came out of the Maricopa 4¢ tax fund. Ms. O'Connell responded affirmatively. He also asked about previous requests to have the AWBA's funds audited, specifically the 4¢ tax. Ms. O'Connell responded saying ADWR has a formal financial auditing process, but the AWBA does not hold the 4¢ tax monies, CAWCD does. The audit would need to be conducted at CAP, and CAP has an annual financial auditing process. There would be nothing to audit at the AWBA relative to these monies. Ms. O'Connell added

that AWBA and CAP staff have worked together as recently as last year to provided information to CAP board members on this topic, which included an accounting of all 4¢ tax monies collected, expended, the balance remaining and the credits accrued.

Mr. Mawhinney asked for clarification on the Indian settlement requirement to assist the federal government with its obligations and the credit accrual goals related to that line item. Ms. O'Connell responded saying the AWBA obligation was to provide \$3 million in cash or in-kind service to the federal government. This was done by accruing an equivalent amount of credits. She indicated that \$2.3 million came from general fund appropriations, \$600,000 came from withdrawal fees and a small amount was applied to the cost of services. These credits, currently held in the AWBA long-term storage account, will not be transferred to the federal government until there is a firming obligation.

Regarding credits accrued for Nevada, Chairman Fabritz-Whitney asked if the AWBA staff had seen the letter sent to the Nevada Legislature by select members of the Arizona Senate and CAP Board Member Mark Lewis that supposedly suggested Arizona would keep the 600,000 acre-feet of credit accrued for Nevada. She asked if there was any truth to this and if this issue had come up at the CAP Board meeting. Ms. O'Connell responded saying that staff had not seen the letter and that she did not recall a discussion on the issue at the Board meeting. She indicated she would look into the matter following the meeting.

Commission members also inquired if the AWBA would store Nevada's unused apportionment in the future. Ms. O'Connell responded that it would be a decision made by the AWBA Commission in that year. If there was sufficient capacity and Arizona needs were met, then perhaps the AWBA Commission could store water for Nevada. Nevada would be responsible for paying for that storage.

Mr. Mawhinney asked about Ms. O'Connell's statement that the AWBA Commission has taken no position on mandatory conservation. He was uncomfortable with this language and instead described the situation as a discussion left open as opposed to the AWBA taking or not taking a position. He suggested the AWBA re-examine the issue and either adopt a policy or put it to bed. Ms. O'Connell explained that during those earlier conversations, the consensus was that there were other provisions already in place that addressed water conservation during drought conditions. She added, however, that the Interagency Recovery Planning Work Group could take another look at the issue.

Mr. Mawhinney asked if the AWBA dedicates credits accrued using withdrawal fees for Indian firming and to the degree the AWBA loses access 4¢ tax monies, does that it take away from using the withdrawal fees credits to support other water management purposes. Ms. O'Connell responded affirmatively.

**Ten-Year Plan.** Terri Sue Rossi, AWBA, then presented the Ten-Year Plan, the details of which are available in the Annual Report itself and the related PowerPoint presentation. Highlights include:

- Projected to store 690,000 acre-feet of water (60% of the water projected in

2011 plan) and expect to accrue 632,000 acre-feet of credits

- 4¢ tax makes up 90% of funding available in Pima County and 40% of funding available in Pinal County; funds exhausted by 2018
- Absent appropriations, withdrawal fees will become primary source of funding for Indian firming; if obligations fully materialize, only 300,000 acre-feet of withdrawal fee credits would remain to address water management issues
- Initial volume for Southside Replenishment District fully subscribed
- M&I firming goal met in Phoenix by 2020
- M&I firming goal in Pinal attainable with use of withdrawal fee credits
- Goal not attainable in Tucson even with use of withdrawal fees credits
- Region moving closer to shortage conditions, but probabilities and volumes are too low to assume a shortage during this planning period
- If recovery triggered, Indian obligations are expected to be affected first followed closely by on-river obligations
- Some probability of surplus exists

Regarding probability of surplus, Tim Henley noted that Mr. Neal had asked staff to include a discussion on the probability of surplus conditions during the planning period. Model results indicate that the probability of a surplus could be as low as 5% and as high as 20%. Mr. Henley proposed the following language be added to the Ten-Year Plan:

#### 8. Surplus Conditions

While the Ten-Year Plan assumes normal water supply conditions, model runs for this period do show that there is approximately a 20% probability that a surplus condition could exist in the later years. If a surplus year is determined, then the AWBA would attempt to store any available water. Additional storage, over what is currently planned in the Ten-Year Plan for that year, could be limited based on funding, canal, and storage capacities available to the AWBA.

There were a number of comments on the Annual Report. All changes were incorporated where applicable except for one that provides details about the probabilities of shortages by type of obligation. CAWCD requested that this section be deleted out of concern that the numbers could conflict with later modeling runs used for recovery planning. AWBA staff instead included a footnote that identifies the specific modeling analysis used in the plan for clarification.

Commission members discussed the impact of losing the 4¢ tax monies on the Ten-Year Plan results. Staff responded indicating the plan assumes the tax sunset, so only the monies collected through the 2016 tax year are used in the Ten-Year Plan. Commission members also asked about how Arizona integrates its modeling efforts into the USBOR modeling efforts. Deanna Ikeya, ADWR Colorado River Group, responded saying both organizations use the same model (i.e. Colorado River Simulation System

or CRSS) but incorporate different assumptions. The primary difference between the two sets of assumptions is that Arizona uses a different upper basin depletion schedule than the USBOR.

Commission members expressed concerns about whether the AWBA's firming goals are still valid given current modeling results by the USBOR and ADWR. Ms. O'Connell responded saying Tim Henley will study this issue during the next fiscal year. A concern in particular was the timing of the study and the risk to the Maricopa 4¢ tax funds given that the Ten-Year Plan shows that Phoenix would exceed its firming goal. Ms. O'Connell responded saying the AWBA does not have a policy to stop storing water when the goals are reached. As long as there is water, money and capacity available, the AWBA would continue to store water. The AWBA can store water to firm non-CAP supplies as well. In response to a question on whether the modeling takes growth into consideration, staff pointed out that it did. Vice-Chairman George asked for a progress report on the Arizona baseline modeling at the AWBA's next quarterly meeting in September.

Commission members expressed frustration about just reporting on its problems and issues and not taking any action to resolve them. Such issues included declining water availability, M&I firming gap in Tucson, declining pump tax revenues with the urbanization of agriculture, and 4¢ tax levy expiration. Commission members concluded the AWBA needed to go in the direction of action items. Vice-Chairman George proposed the conclusions section of the Ten-Year Plan be amended to include the development of an action plan. As a part of that process, the AWBA would develop priorities with action items instead of just a list of issues facing the AWBA. Vice-Chairman George distributed a list of action items she and Mr. Mawhinney prepared for the Authority's consideration. As money and water gets tighter, the AWBA needs to come with priorities and it needs to prepare an action plan to address the diminishing resources.

After discussing various issues and problems, two action items emerged for immediate attention: purchasing long-term storage credits accrued by others and requesting a general fund appropriation for Indian firming. Vice-Chairman George requested the stakeholders send any ideas in terms of priorities for the AWBA and/or action items to address diminishing water and financial resources to the AWBA staff. Mr. Mawhinney asked if a special meeting is needed to go through these problems, issues and actions.

Vice-Chairman George asked for a motion to approve the 2012 Annual Report and Ten-Year Plan including the additional language regarding surplus conditions proposed by Mr. Henley and the language at end of the Ten-Year Plan identifying the development of an action plan over the next several months. Mr. Hartdegen moved to approve the 2012 Annual Report and Ten-Year Plan including the amendment proposed by Mr. Henley and Vice-Chairman George's amended language regarding an action plan. Mr. Neal expressed concern about the timing saying staff should have until this time next year for the 2013 annual report. The Authority agreed to modify Vice-Chairman George's amendment consistent with Mr. Neal's request and he seconded the motion. The authority adopted the amended Annual Report and Ten-Year Plan.

## **Administrative Budget**

Ms. O'Connell described the FY 2013 budget indicating that the amount budgeted was nearly \$600,000 and the amount actually spent was \$515,000. For the FY 2014 budget, the AWBA projects expenditures of less than \$490,000. Commission members asked about amending the budget in September if the action items require additional work, or should the current budget reflect potential costs associated with these new action items. The Commission suggested including a specific line item under Professional and Outside Services for the development and implementation of an action plan not to exceed \$200,000. Mr. Mawhinney moved to approve the budget amendment. Mr. Hartdegen seconded the motion. The Authority passed the amendment.

Mr. Neal moved to amend the operating expenses to provide an additional \$2,400 for employee training bringing the total to \$3,000. Mr. Hartdegen seconded the motion and the Authority approved the motion.

Vice-Chairman George asked for a motion to approve of the FY 2014 budget with a \$200,000 line item for developing and implementing action planning and an additional \$2,400 for training. Mr. Neal moved to approve the revised budget. Mr. Hartdegen seconded the motion and the Authority approved the budget as amended.

## **Call to the Public**

There were no public comments.

Vice-Chairman George announced the next AWBA meetings are scheduled for Wednesday, September 18, 2013 and Wednesday, December 18, 2013. She noted that based on today's discussion a special meeting could be scheduled between now and the September meeting. Mr. Hartdegen moved to adjourn the meeting. Mr. Neal provided the second and the motion carried.

The meeting adjourned at 12:12 p.m.

III. Water Bank Staff Activities

**NOTES:** (No action required, agenda item for discussion only)

Call on **Virginia O'Connell** to update members on:

- Monthly deliveries
- Recovery planning update

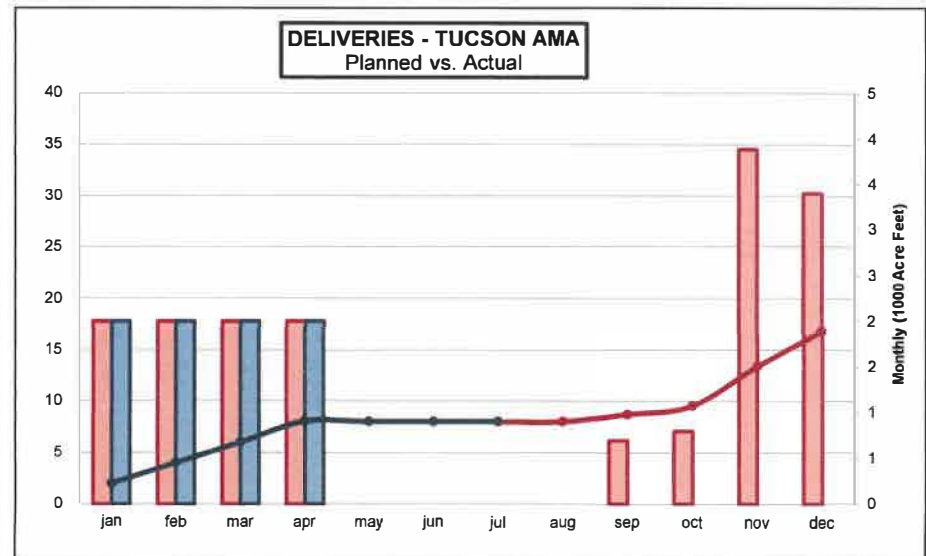
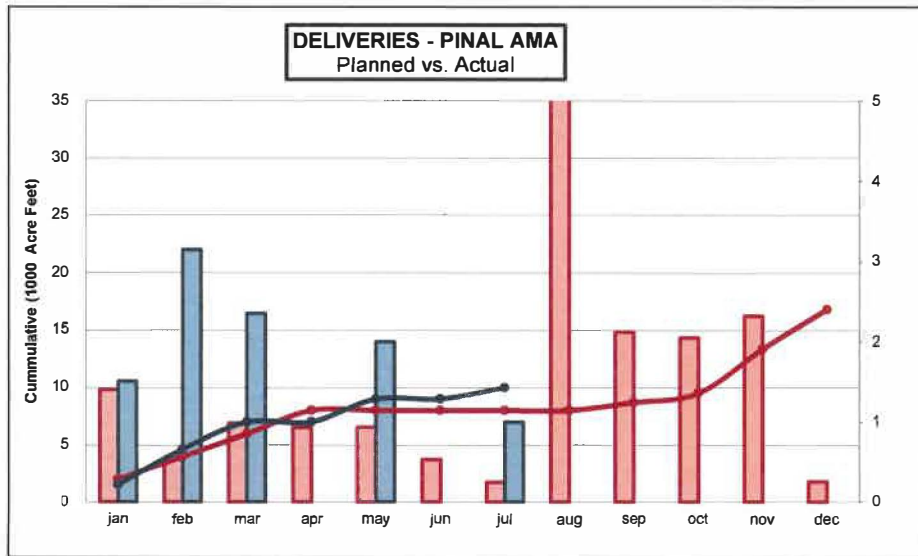
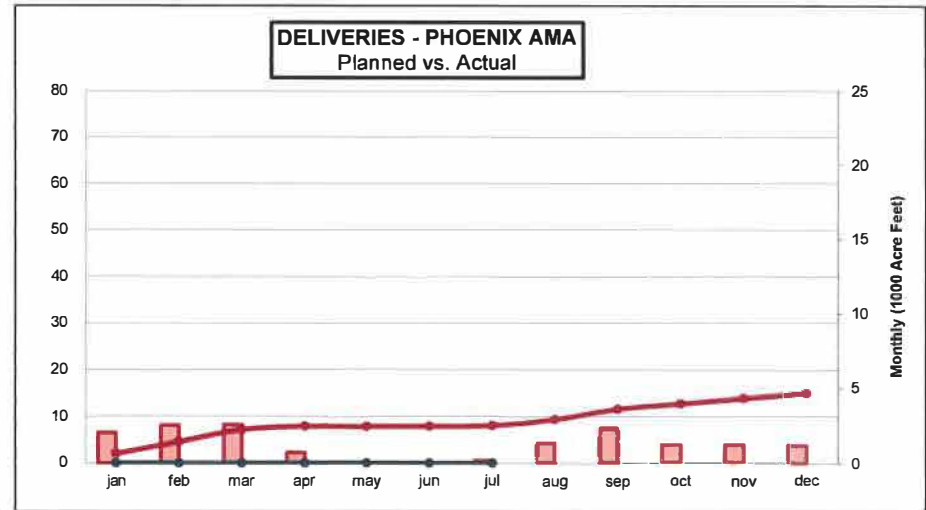
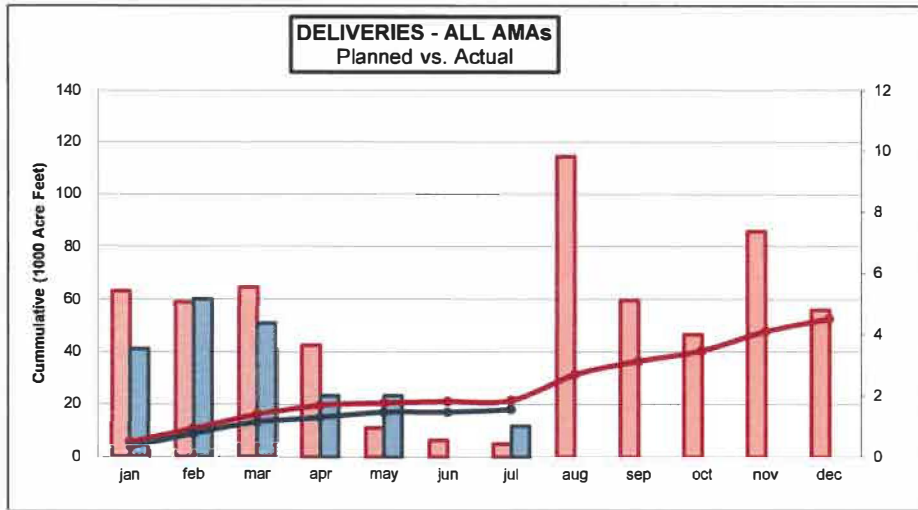
Call on **Deanna Ikea** to brief members on the Arizona baseline CRSS modeling assumptions

Call on **Tim Henley** to provide an update on re-evaluating AWBA numeric goals

**ACTION:** None



# 2013 Plan of Operation - INTRASTATE



■ PLANNED (MONTHLY)   
 ■ ACTUAL (MONTHLY)   
 —●— PLANNED (CUM)   
 —●— ACTUAL (CUM)

Actual deliveries updated  
Plan of Operation

28-Aug-13  
7-Dec-11

**Phoenix AMA**

	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	total
TONOPAHD DESERT	0	0	0	0	0	0	0	0	0	0	0	0	0
	2,000	2,000	2,030	0	0	0	0	0	0	0	0	0	6,030
NMIDD	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
QCID	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	175	1,343	2,285	1,142	1,143	1,142	7,230
SUPERSTITION MTNS	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	500	500	702	0	0	0	0	0	0	0	0	1,702
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0	0
Total to date	0	0	0	0	0	0	0	0	0	0	0	0	0
Projected total to date	2,000	2,500	2,530	702	0	0	175	1,343	2,285	1,142	1,143	1,142	14,962

**Pinal AMA**

CAIDD	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	6,600	0	0	0	0	6,600
MSIDD	510	3,140	2,350	0	600	0	0	0	0	0	0	0	6,600
	0	0	0	0	0	0	0	1,650	1,650	1,650	1,650	0	6,600
HIDD	0	0	0	0	1,400	0	1,000	0	0	0	0	0	2,400
	408	536	989	935	935	536	247	218	472	400	670	254	6,600
Southside Bank	1,000	0	0	0	0	0	0	0	0	0	0	0	1,000
	1,000	0	0	0	0	0	0	0	0	0	0	0	1,000
Subtotal	1,510	3,140	2,350	0	2,000	0	1,000	0	0	0	0	0	10,000
Total to date	1,510	4,650	7,000	7,000	9,000	9,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Projected total to date	1,408	536	989	935	935	536	247	8,468	2,122	2,050	2,320	254	20,800

**Tucson AMA**

AVRA VALLEY	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	183	700	883
CAVSARP	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
SAVSARP	2,000	2,000	2,000	2,000	0	0	0	0	0	0	0	0	8,000
	2,000	2,000	2,000	2,000	0	0	0	0	0	0	2,000	1,901	11,901
LOWER SANTA CRUZ	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
PIMA MINE ROAD	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
CMID	0	0	0	0	0	0	0	0	700	800	1,700	800	4,000
	0	0	0	0	0	0	0	0	0	0	0	0	0
BKW FARMS	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
KAI FARMS - Red Rock	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	2,000	2,000	2,000	2,000	0	0	0	0	0	0	0	0	8,000
Total to date	2,000	4,000	6,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000
Projected total to date	2,000	2,000	2,000	2,000	0	0	0	0	700	800	3,883	3,401	16,784
<b>TOTAL</b>	3,510	5,140	4,350	2,000	2,000	0	1,000	0	0	0	0	0	18,000
Total to date	3,510	8,650	13,000	15,000	17,000	17,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
Projected total to date	5,408	5,036	5,519	3,637	935	536	422	9,811	5,107	3,992	7,346	4,797	52,546



## **Joint Recovery Plan Update**

**ADWR, AWBA & CAP**

AWBA Quarterly Meeting  
September 4<sup>th</sup>, 2013

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“Effective planning and coordination among AWBA, ADWR, CAP, CAP customers, recovery partners and others is essential to successful recovery...”

*--Recovery of Water Stored by the Arizona Water Banking Authority: A Joint Plan by AWBA, ADWR and CAP. August 2013 Draft, page 3.*

## Progress to Date

- Drafted Sections 1-4
- Shared with the Ad Hoc group
- Received initial feedback
- Waiting for written edits/comments
- Developing Sections 5-7
- Broader distribution will occur when the remaining sections of the draft document are complete

## Today's Focus

- Review first 4 Sections of Plan - set the stage for the who, what, where, when and why
- Emphasis on Section 4 "Likelihood, Timing & Magnitude"
- Before the end of the year, we will present the remaining Sections that address how recovery will occur (implementation)

## Section 1: Background, Scope and Purpose

- Section provides broad context
- Scope includes recovery of the AWBA's credits in support of its goals and obligations:
  - To firm CAP M&I priority subcontractors and P-4 on-River M&I users during shortage
  - To meet the State's obligations to firm up to 23,724 AF of NIA priority CAP pursuant to Indian water rights settlements
  - To meet interstate water banking obligations with Nevada

## Section 1: Background, Scope and Purpose (continued)

- Clarify roles of the primary institutions
- Establish planning-level certainty
- Analyze and project the timing & magnitude of potential recovery (through 2045)
- Identify potential recovery partnerships and opportunities
- Identify key recovery decision points and actions within the planning horizon



## Section 2: Roles and Responsibilities

- AWBA
- CAP
- ADWR
- Reclamation
- CAP's Recovery Partners
- Beneficiaries
- Other Interested Parties

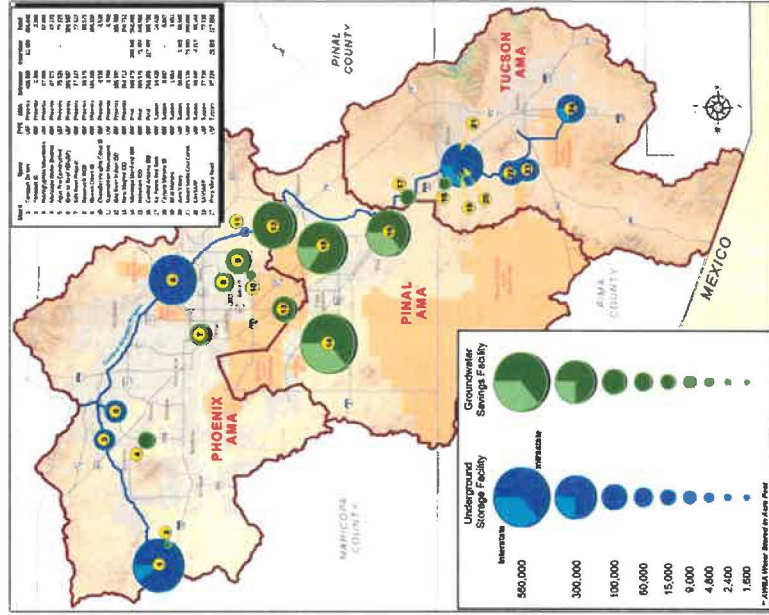
## Section 3: Funding, Purpose, and Location of Credits

- AWBA has accrued 3.8 million AF of credits through 2012 (3.2 MAF for intrastate and 600,000 MAF interstate needs)
- Several factors determine where recovery of these credits will occur
  - Funding Sources
  - Statutory Purposes
  - Location of Storage

## Credits By AMA & Funding Source

Funding Source	Phoenix AMA	Pinal AMA	Tucson AMA
4-Cent Tax <sup>1</sup>	1,329,925	187,465	390,334
Withdrawal Fees	293,632	394,896	98,788
General Fund	42,316	306,968	54,546
Other Intrastate:			
Indian Firming Appropriation	-	-	28,481
Shortage Reparation	20,642	60,507	1,227
GSF Operator Full Cost Share <sup>2</sup>	-	14,125	-
<b>Intrastate TOTAL</b>	<b>1,686,514</b>	<b>963,961</b>	<b>573,376</b>
Interstate - Nevada	51,009	439,851	109,791
<b>TOTAL</b>	<b>1,737,523</b>	<b>1,403,812</b>	<b>683,167</b>

# Location of Credits



## Section 4: Likelihood, Timing & Magnitude of Recovery

- Factors Affecting Recovery
- Modeling Approach
- Synthesizing Results

## Section 4: Likelihood, Timing & Magnitude of Recovery

- **Factors affecting Recovery**

- Shortage
- Non-shortage

## Shortage Factors

- Recovery of AWBA credits will be required when the reduction in Arizona's **supply** intersects **demand** of users (pools) for which the AWBA has firming goals or obligations

# Shortage: Supply Factors

## ● To Arizona

- Basin Hydrology
- Upper Basin Demands
- Initial Reservoir Condition
- Reservoir Operations

## ● Within Arizona

- Colorado River Uses and Priorities
- CAP Uses and Priorities



# Shortage: Demand Factors

- **On-River**

- Agricultural Use
- Rate of municipal growth

- **CAP**

- Use of long-term entitlements
  - Rate of municipal growth
  - Use of Indian contracts

## Non-Shortage Factors

- Outage on the CAP system (outside scope of this Plan)
- Interstate ICUA Requests
  - Rate of Nevada's municipal growth

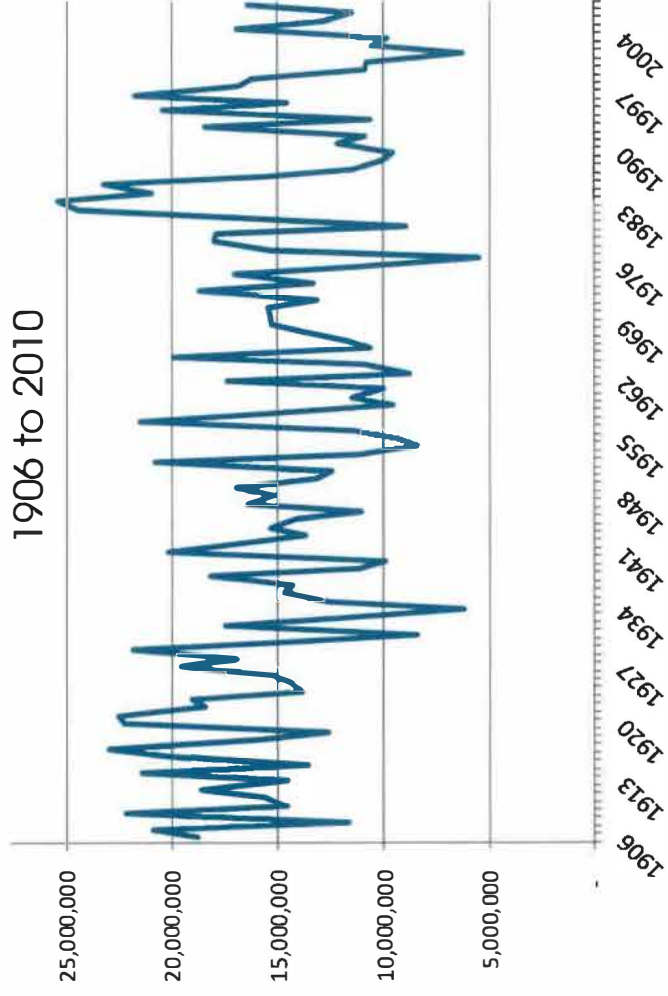
# Modeling

- Analysis of recovery factors requires use of models
- The Joint Plan relies on two models
  - Reclamation's Colorado River Simulation System (CRSS)
  - Custom recovery model that calculates the probability of specific recovery volumes through time based on range of supply and demand conditions

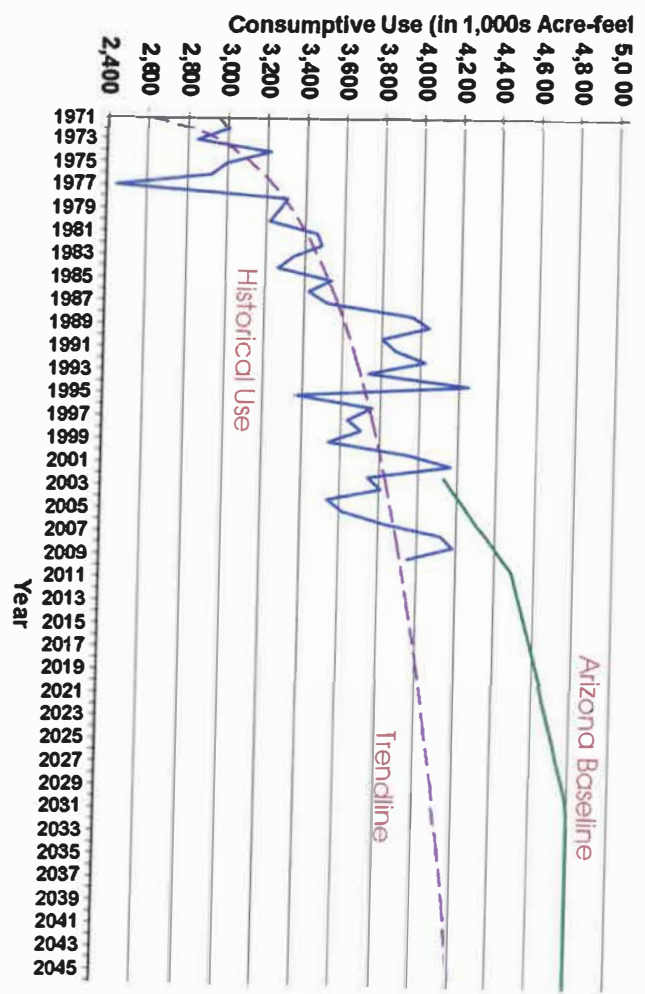
## CRSS Modeling Assumptions

<b>“Arizona Baseline”</b>	
<b>Modeling Parameters</b>	<b>Modeling Assumptions</b>
<b>Basin Hydrology</b>	Observed Record (1906-2010)
<b>Upper Basin Demands</b>	ADWR Upper Basin Demand Assumption - 4.8 MAF by 2031, then flat
<b>Operation of Yuma Desalting Plant</b>	No
<b>Mexico Shortage Sharing</b>	Yes, Minute 319, extended
<b>Reservoir Operations</b>	2007 Interim Guidelines, extended
<b>Initial Reservoir Condition</b>	2014 Lake Mead elevation

# Basin Hydrology



# Upper Basin Demands

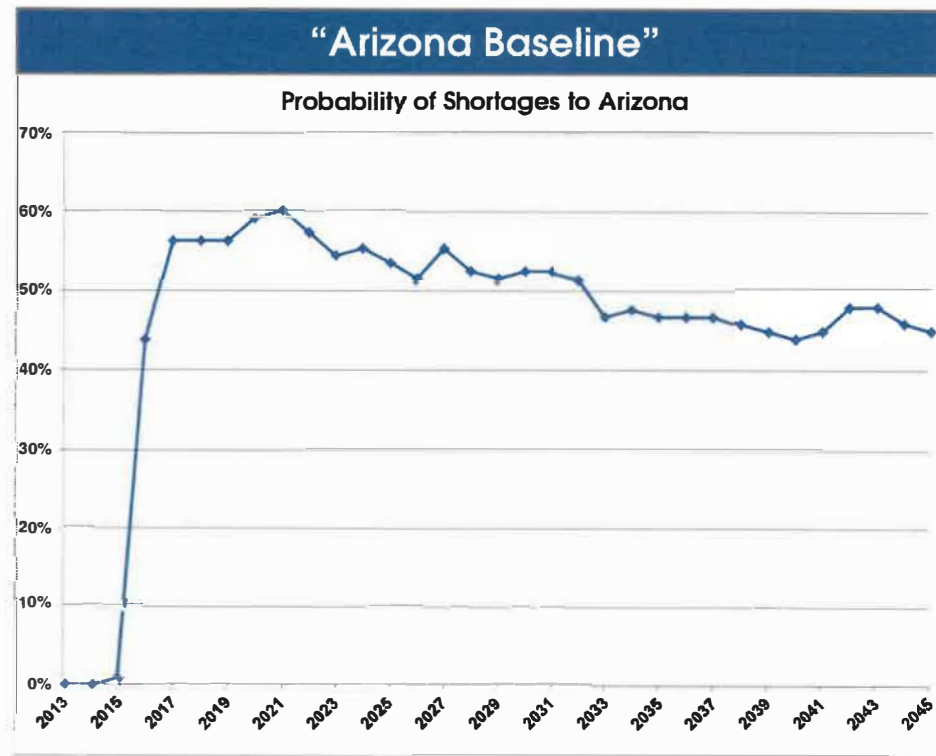


# Reservoir Operations

Interim Guidelines (2007) and Minute 319

Shortage Tier	January 1 Elevation of Lake Mead	Delivery Reductions During Shortage (AF)		
		Nevada	Mexico	Arizona
Tier 1	1075' to 1050'	13,000	50,000	320,000
Tier 2	<1050' to 1025'	17,000	70,000	400,000
Tier 3	<1025' to 1000'	20,000	125,000	480,000
Tier 3+	below 1000'	<i>Basin States must consult (consultation triggered once Lake Mead drops below 1025')</i>		

# Shortages to Arizona

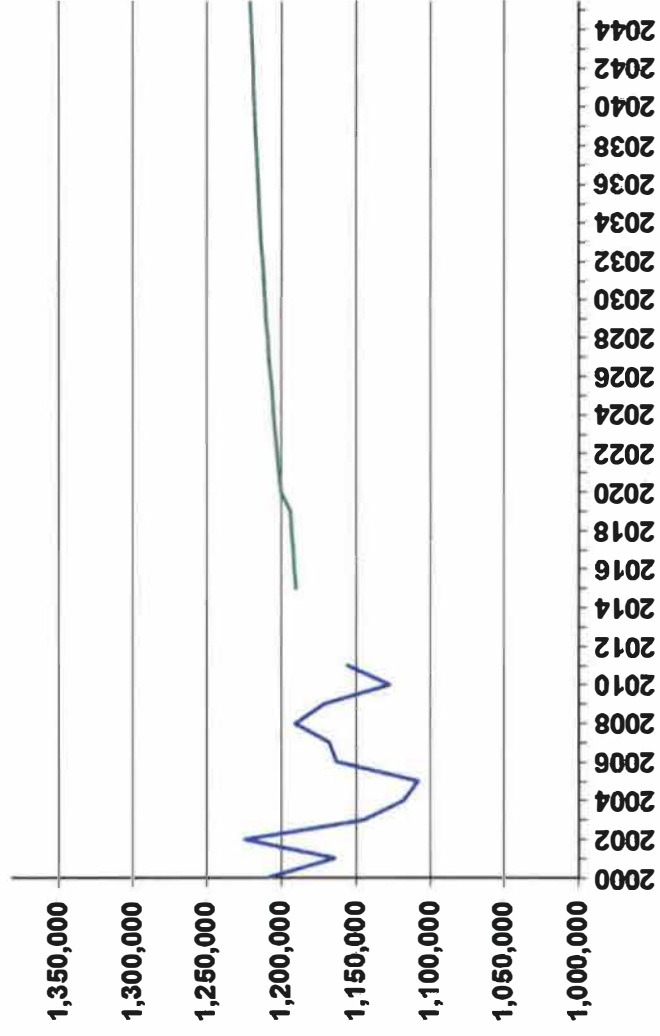




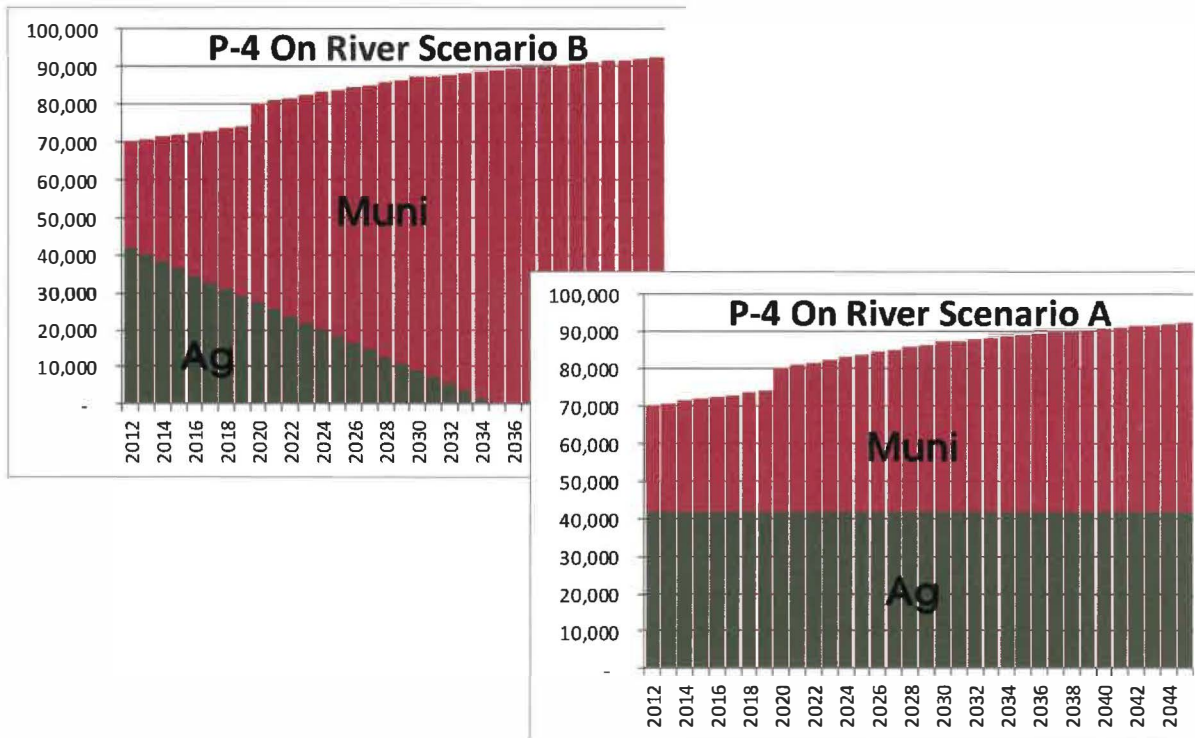
## Recovery Model

- The recovery model incorporates the 105 different water supply traces from the CRSS model and matches those against a range of projected on-River and CAP demands.

# On-River Demand

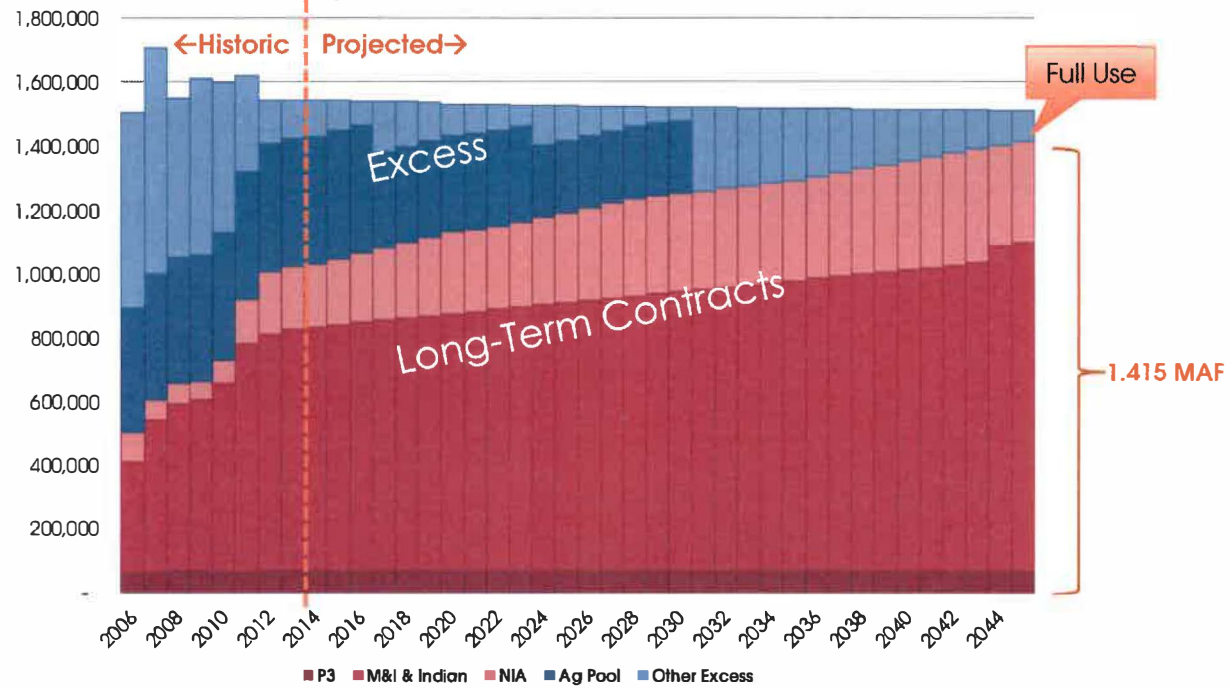


# On-River P-4 Demand



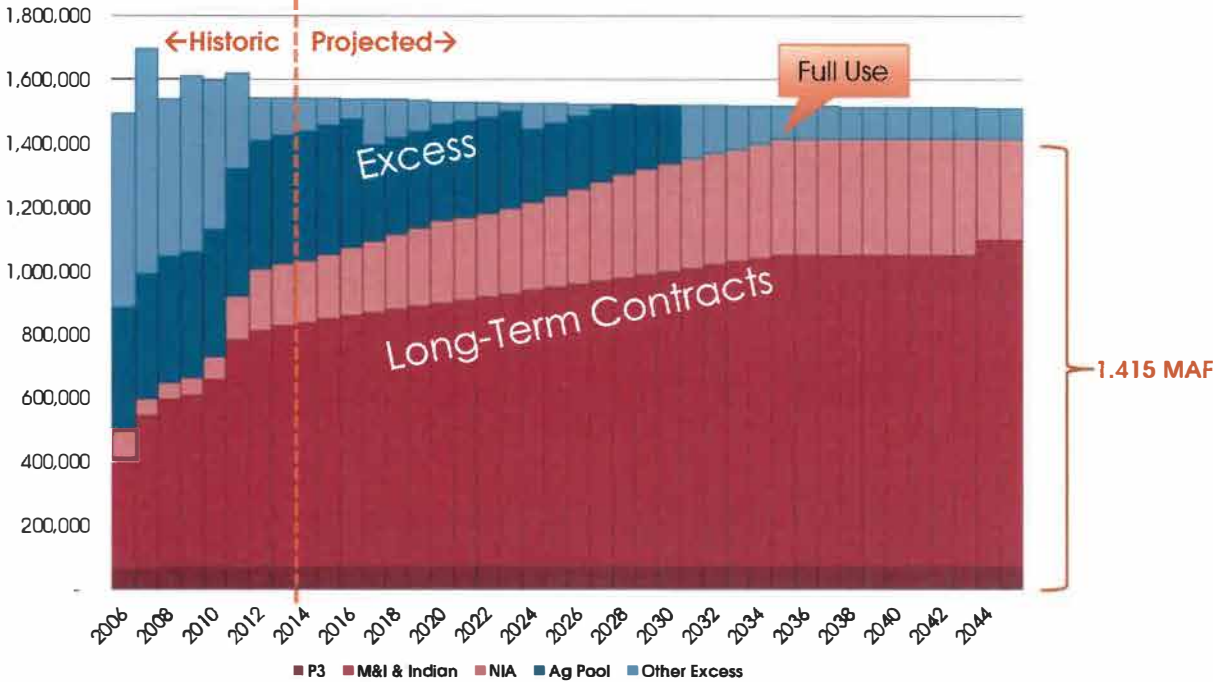
# CAP Demand

## Full Long-Term Contract Use by 2045



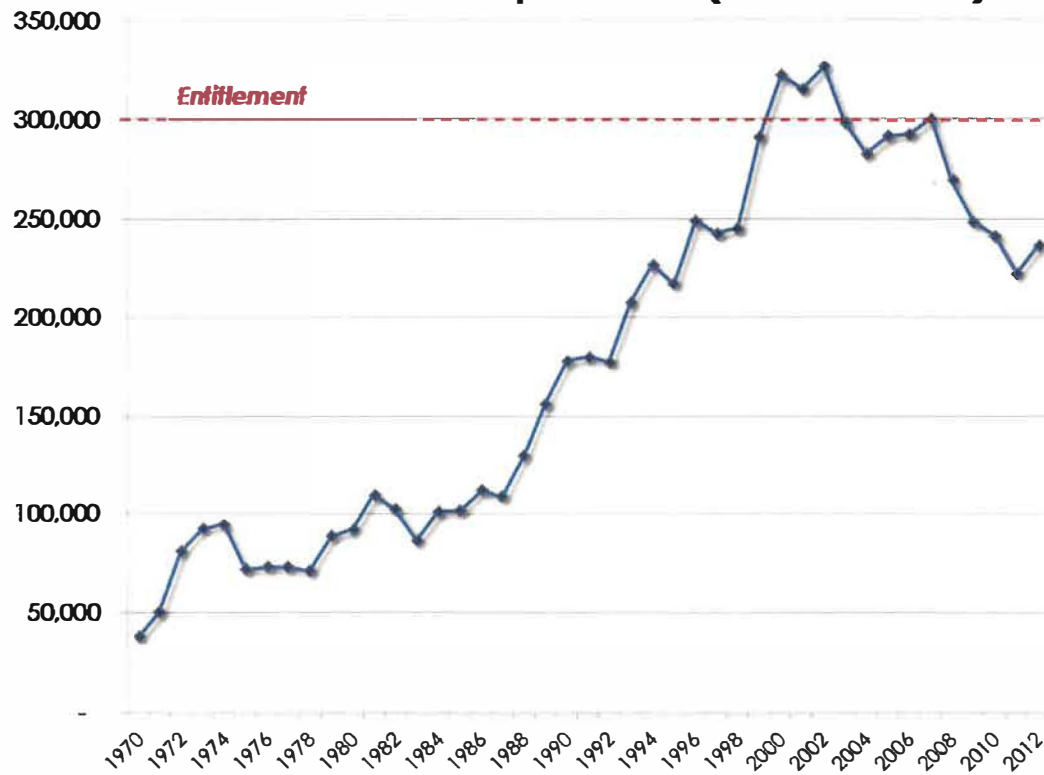
# CAP Demand

## Full Long-Term Contract Use by 2035



# Nevada Demand

## Nevada Consumptive Use (1970-Present)



# Scenarios

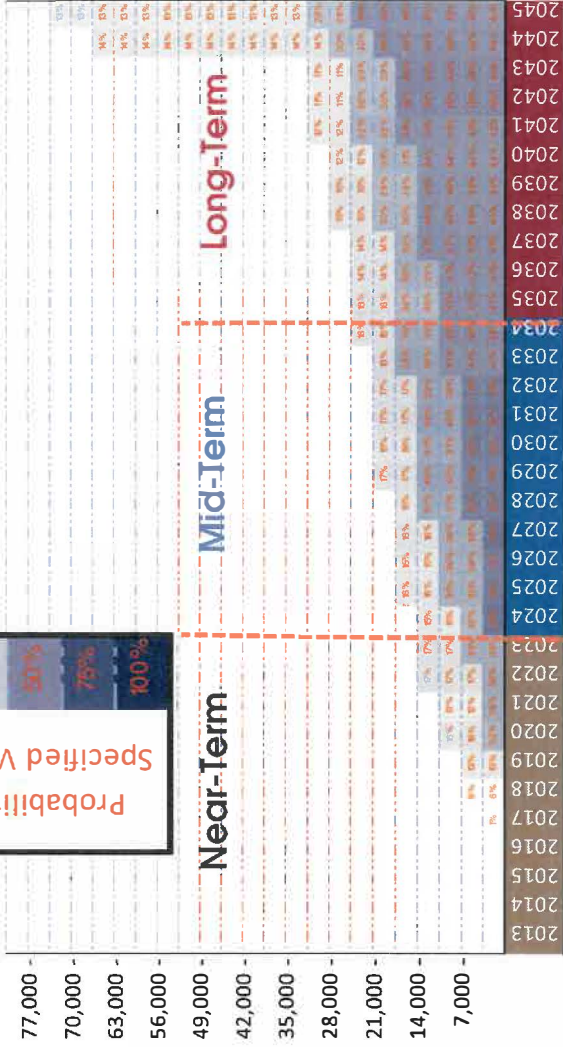
Scenarios	On-River Demand	CAP Demand	Nevada Request
<b>Scenario A</b>	Increase to 1.22 MAF by 2045; Ag steady, Muni growth per 2006 Census, no conversion of P-4 agricultural use  (ADWR's Scenario A for NIA reallocation)	Full long-term contract use by 2045	<b>A1:</b> Start in 2025; steady to 2063 (~15 kAF/yr); no shortage request <b>A2:</b> Start in 2035; steady to 2063 (~21 kAF/yr); no shortage request
<b>Scenario B</b>	Increase to 1.22 MAF by 2045; Ag steady, Muni growth per 2006 Census, full conversion of P-4 agricultural use to M&I by 2035	Full long-term contract use by 2035	<b>B1:</b> Start in 2025; max request; additional shortage request <b>B2:</b> Start in 2035; max request; additional shortage request

# Model Results

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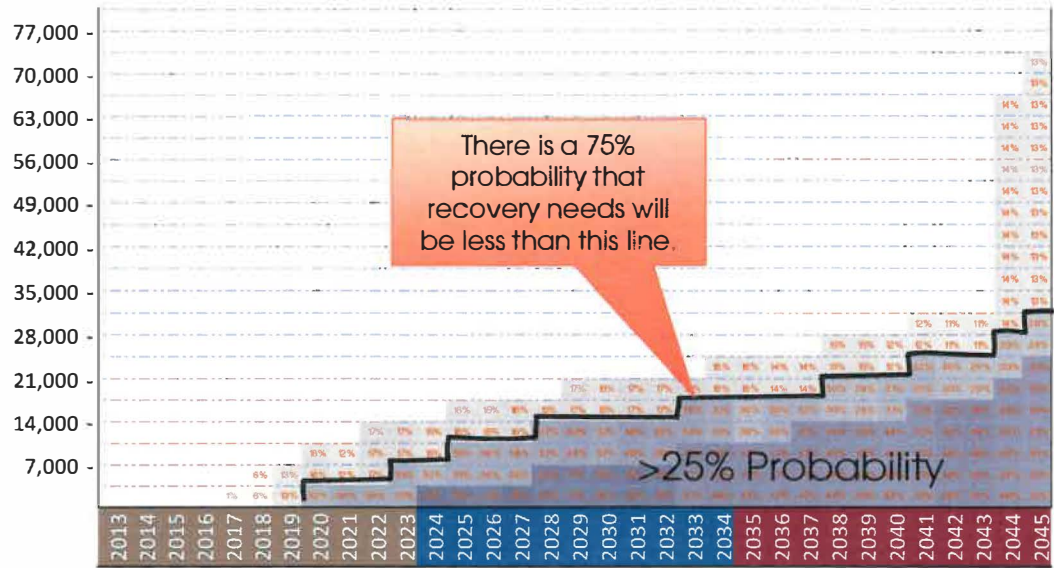
Probability at Specified Volume







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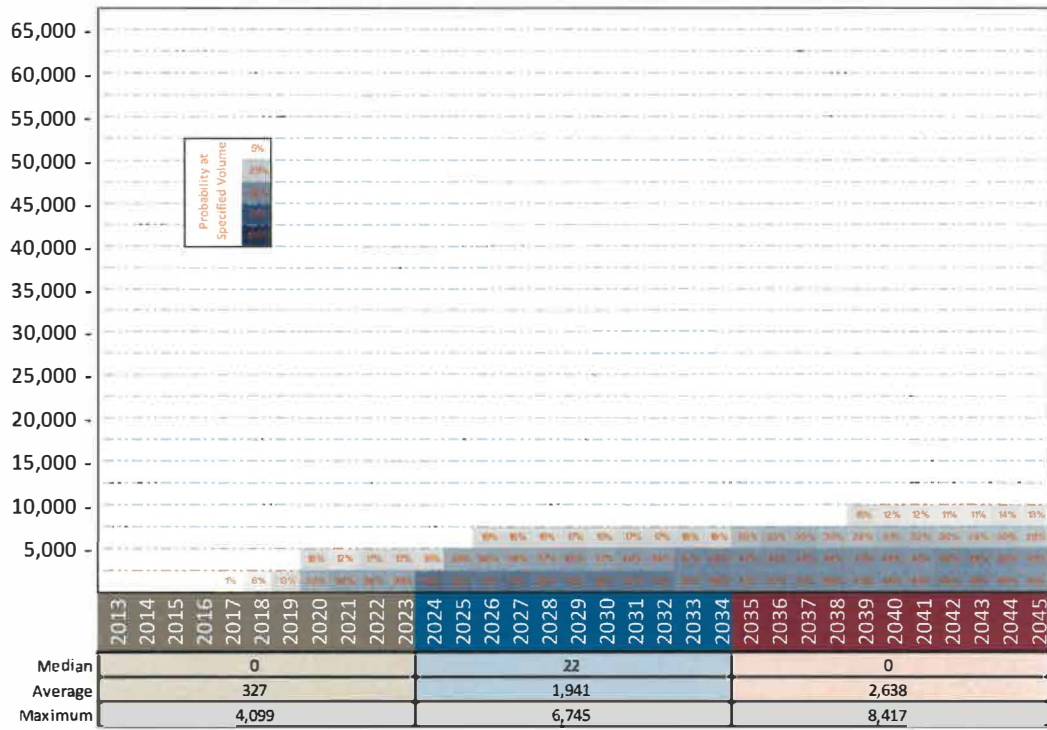


Scenario A

Recovery for On-River P4

CRSS: 9/13 Run, AZ Assumptions; On-River: ADWR NIA "A", No Ag Convert

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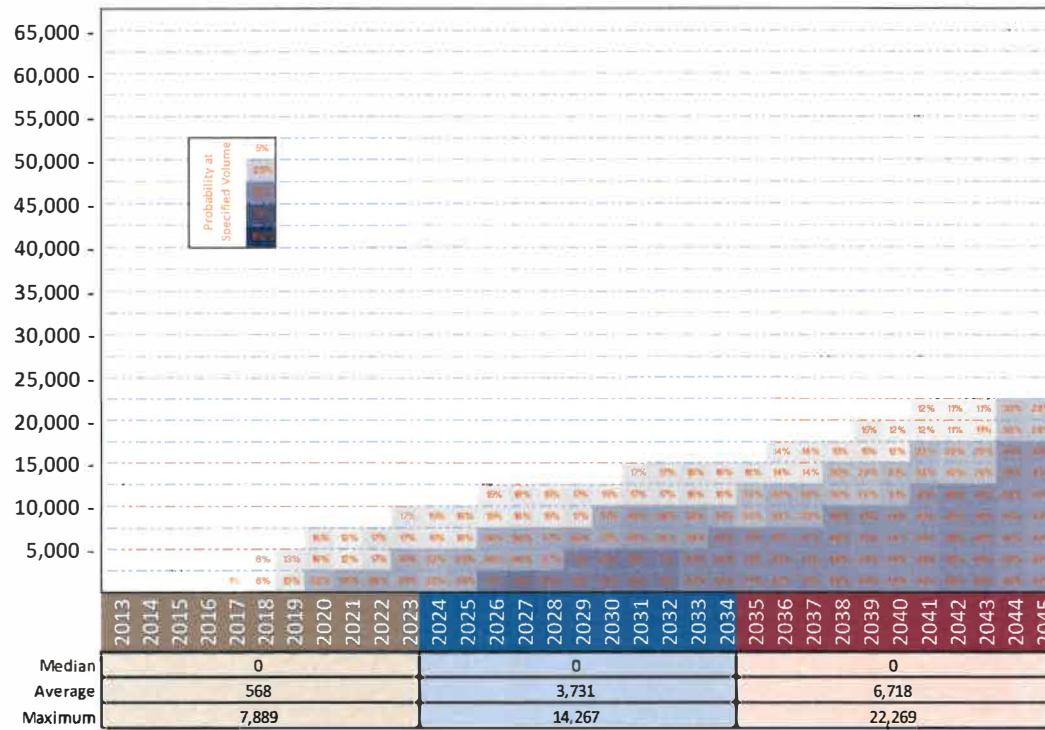


Scenario A

**Recovery for Indian NIA**

CRSS: 9/13 Run, AZ Assumptions; On-River: ADWR NIA "A"; Long-Term  
Contracts: Full by 2045

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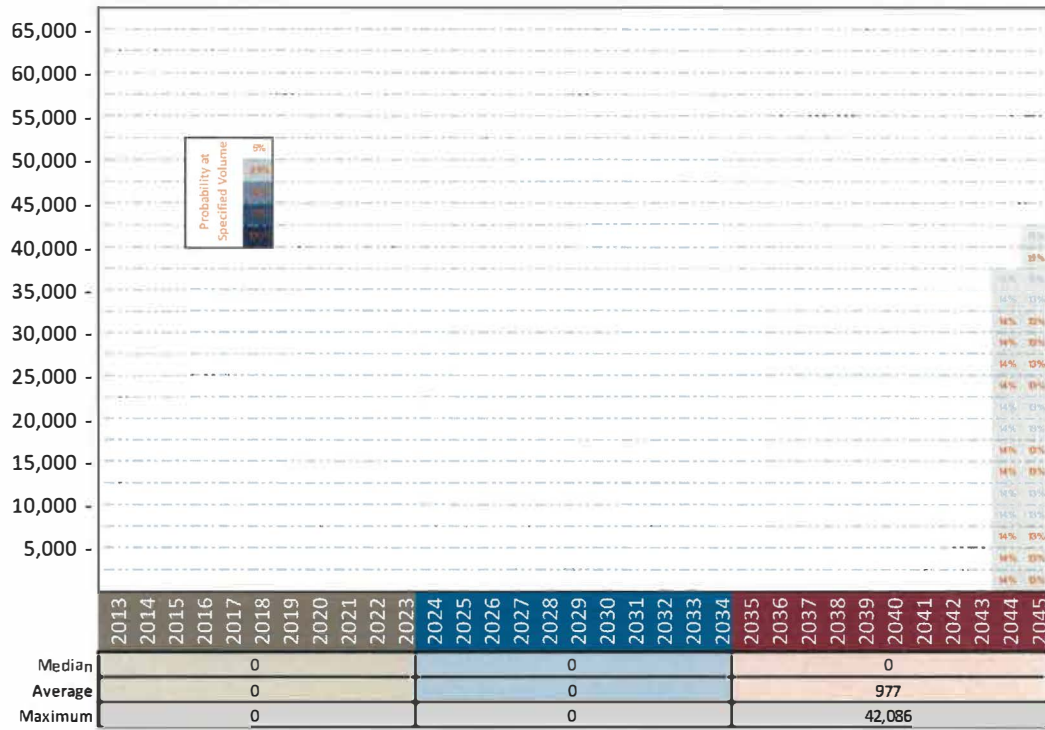


Scenario A

Recovery for M&I

CRSS: 9/13 Run, AZ Assumptions; On-River: ADWR NIA "A"; Long-Term Contracts: Full by 2045

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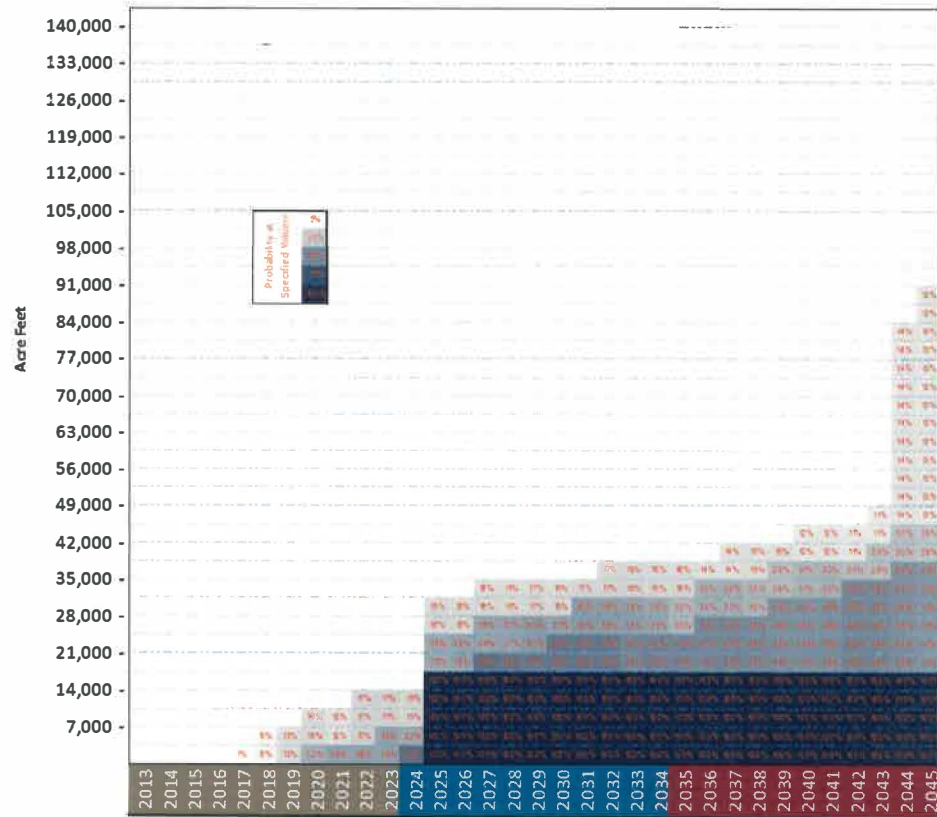


# Scenario A1

## TOTAL Recovery

CRSS: 9/13 Run, AZ Assumptions; Nevada: Steady Request, 2025 to 2063, No Short; On-River: ADWR NIA "A", No Ag Convert; Long-Term Contracts: Full by 2045

DRAFT

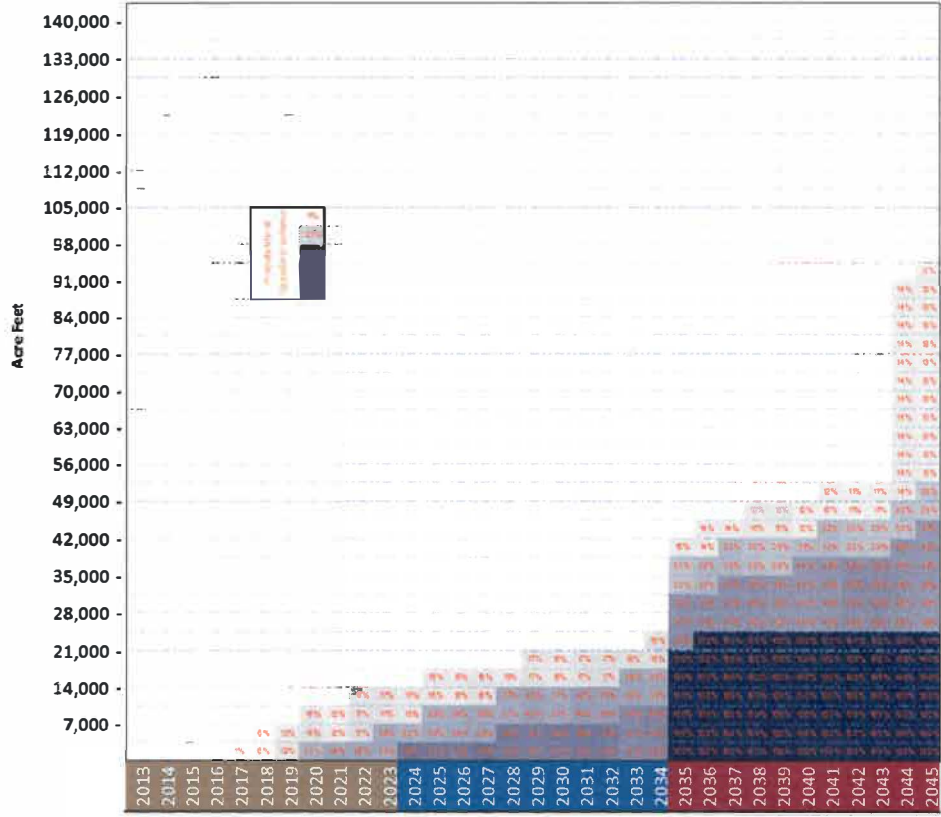


Scenario A2

TOTAL Recovery

CRSS: 9/13 Run, AZ Assumptions; Nevada: Steady Request, 2035 to 2063, No Short; On-River: ADWR NIA "A", No Ag Convert; Long-Term Contracts: Full by 2045

DRAFT



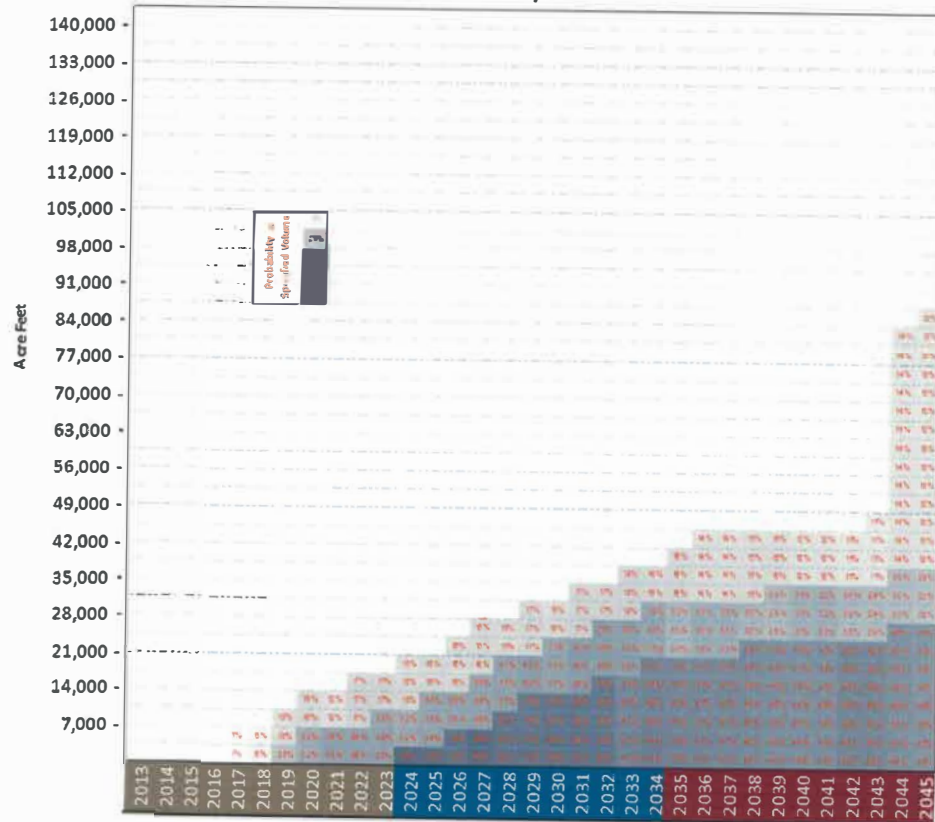


# Scenario B

## TOTAL Recovery

CRSS: 9/13 Run, AZ Assumptions; Nevada: No Request, No Short; On-River: ADWR NIA "A", Full Ag Convert by 2035; Long-Term Contracts: Full by 2035

DRAFT

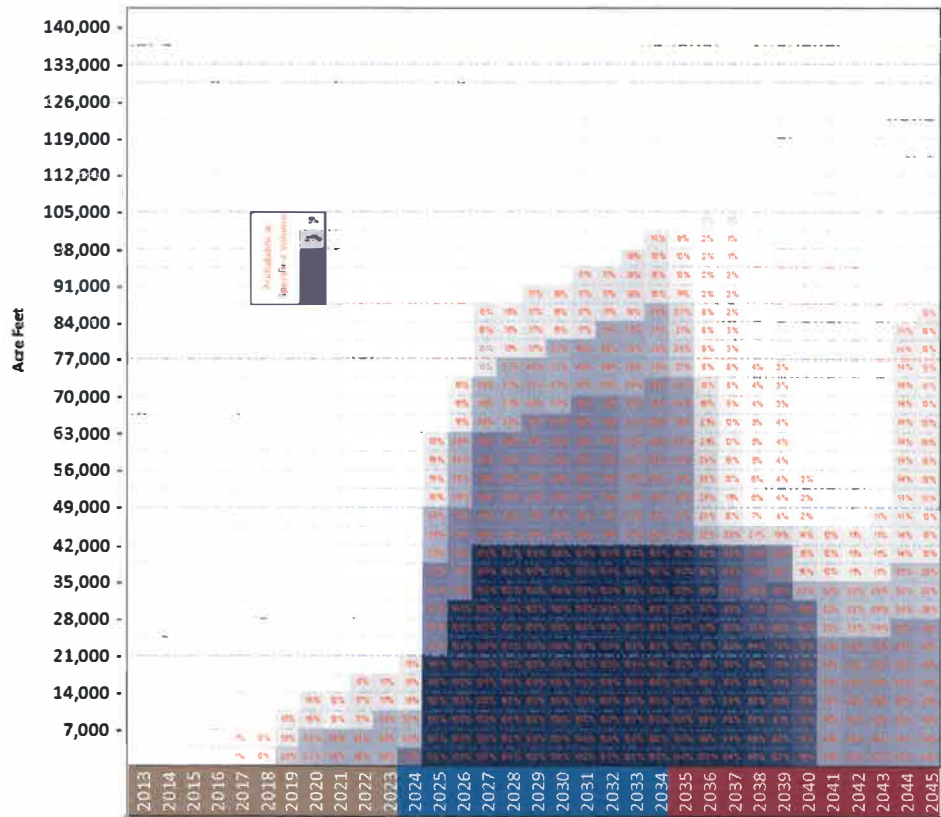


### Scenario B1

## TOTAL Recovery

CRSS: 9/13 Run, AZ Assumptions; Nevada: Maximum Request, 2025  
Start, w/Short; On-River: ADWR NIA "A", Full Ag Convert by 2035; Long-Term Contracts: Full by 2035

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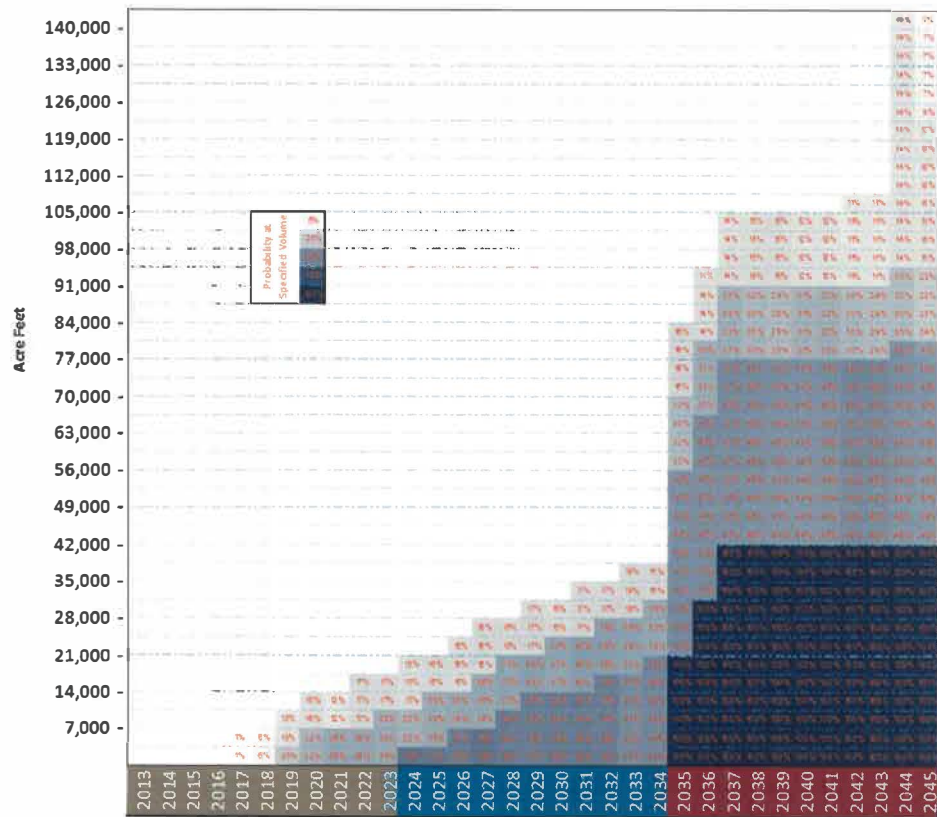


### Scenario B2

## TOTAL Recovery

CRSS: 9/13 Run, AZ Assumptions; Nevada: Maximum Request, 2035  
Start, w/Short; On-River: ADWR NIA "A", Full Ag Convert by 2035; Long-Term Contracts: Full by 2035

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# Summary Table

**DRAFT**

Water User	Earliest	Maximum Probability	Maximum Near-Term (AF)	Maximum Mid-Term (AF)	Maximum Long-Term (AF)
Indian NIA	2017	55%	10,300	22,700	23,700
On-River	2017	55%	6,800	15,500	19,900
M&I	2035	16%	0	0	42,000
<b>Total Intrasate</b>	2017	55%	<b>17,000</b>	<b>38,200</b>	<b>84,200</b>
Interstate	2025	100%	0	60,000	60,000
<b>Total with Interstate</b>			<b>17,000</b>	<b>98,200</b>	<b>144,200</b>

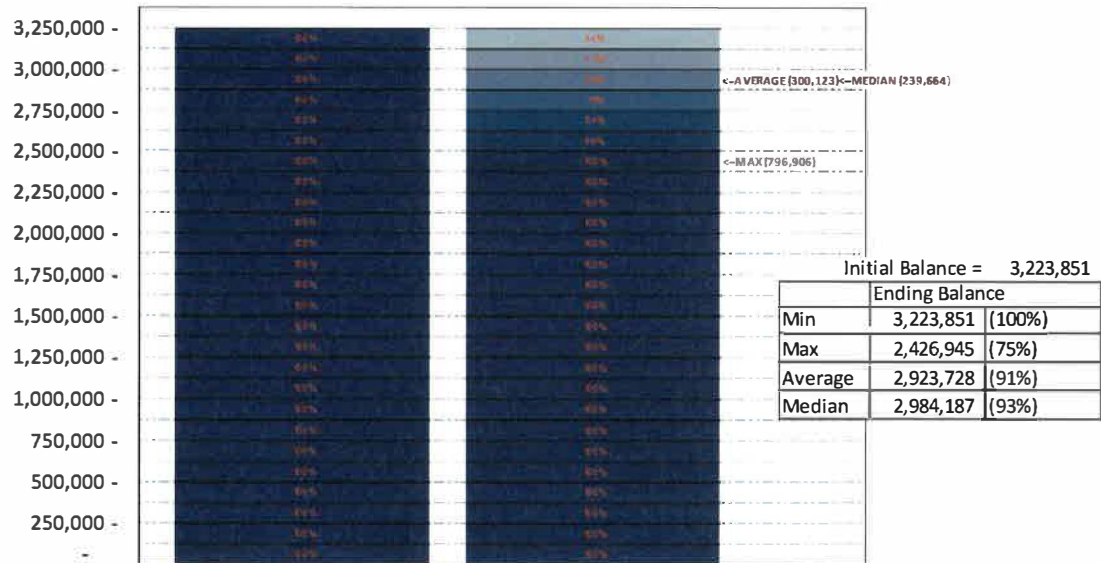
Scenario B2

# Remaining Credits

**DRAFT**

## Total Intrastate Credit Balance

CRSS: 9/13 Run, AZ Assumptions; On-River: ADWR NIA "A", Full  
Ag Convert by 2035; Long-Term Contracts: Full by 2035



## Summary of Results

- Earliest projected intrastate recovery is 2017 (1% probability; Indian NIA and On-River)
- Less than 35% probability of needing any recovery before the Mid-Term planning period (2024-2034)
- No M&I recovery projected until Long-Term planning period (2035-2045)
- Bulk of intrastate credits remain past 2045
- Timing and magnitude of Nevada's request plays significant role in Mid-Term and Long-Term planning periods

## Next Steps

- Develop Sections 5-7 which deal with how the recovery will occur
  - Recovery Methods
  - Opportunities by AMA
  - General Costs
  - Implementation
  - Future Activities & Commitments

**DRAFT Arizona Baseline Model  
Colorado River Simulation System (CRSS) and Analysis Assumptions  
August 29, 2013**

**Purpose and Intended Uses Statement – in development**

Parameter	Arizona Baseline Assumptions	Remarks
<b>Base Model</b>	Official model from the Bureau of Reclamation. Main version of model – 2010 BiNational Model. Version date TO BE DECIDED.	Will consider changing versions when Basin Study Main version of model is available. Need to decide on USBR January or August model and frequency of updates. May be able to update Ruleset only.
<b>Hydrology</b>	1906-2010 historical natural flow used to predict future flow conditions using the Indexed Sequential Method.	Plan to explore the Paleo and Down-Scaled Climate hydrologies as sensitivity analyses once the data is available.
<b>Model Run Period</b>	The model run period is up to 100 years based upon the current year (for example, 2013 to 2112).	
<b>Initial Reservoir Conditions</b>	Actual elevations from December 31 of the year prior to the model run. The Bureau’s 24-month study reports provide reservoir conditions at the end of the month.	An updated model run can be used if conditions warrant.
<b>Lake Powell Equalization / 602a Storage</b>	Based on the 2007 Interim Guidelines, equalization is based upon the Lake Powell “Equalization” line, which is in effect through 2026. (Interim Guidelines Section XI.G.6A) Consistent with the Colorado River Basin Supply and Demand Study, the equalization line is extended from 2027 and it is capped at the elevation determined for 2060.	In the 2007 Interim Guidelines, the 602a storage algorithm goes into effect after 2026.
<b>US Lower Basin Surplus</b>	Surplus deliveries as described in 2007 Interim Guidelines: <ul style="list-style-type: none"> <li>- Flood Control Surplus</li> <li>- Quantified Surplus (70R)</li> <li>- Domestic Surplus – above elevation 1,145 and below Quantified Surplus. This surplus ends in 2026.</li> <li>- Intentionally Created Surplus (ICS) – above elevation 1,075 and no Flood Control Surplus is declared. ICS extends through 2026, except Tributary Conservation (SNWA) which goes through 2057. ICS deliveries will be per submitted ICS schedules for Arizona, California, and Nevada.</li> </ul>	ICS delivery schedules are assumed to be updated annually and completed through 2026. Verify the ICS schedules are up-to-date and provide a print-out of what is stated in the model.



Parameter	Arizona Baseline Assumptions	Remarks
<b>Mexico Surplus</b>	<p>Per the 1944 Water Treaty and Minute 319, deliveries to Mexico will be increased:</p> <ul style="list-style-type: none"> <li>- 40,000 acre-feet when Lake Mead is between 1,145 and 1,170 ft. msl</li> <li>- 55,000 acre-feet when Lake Mead is between 1,170 and 1,200 ft. msl</li> <li>- 80,000 acre-feet when Lake Mead is at or above 1,200 ft. msl but below levels for flood control releases</li> <li>- 200,000 acre-feet during flood control releases</li> </ul> <p>Release of ICMA (Intentionally Created Mexico Allocation) will be per the ICMA schedule as provided in Minute 319.</p>	<p>Verify ICMA schedules in model. Should be 104kAF in 2014 and 52kAF in 2015 and 2016. Provide print-out of what is stated in model.</p>
<b>US Lower Basin Shortages</b>	<p>Shortages based on Lake Mead elevations as described in the 2007 Interim Guidelines:</p> <ul style="list-style-type: none"> <li>- Below 1,075 feet and above 1,050 feet: 333,000 af US Lower Basin shortage of which 320,000 af is born by Arizona.</li> <li>- Below 1,050 feet and above 1,025 feet: 417,000 acre-feet US Lower Basin shortage of which 400,000 af is born by Arizona.</li> <li>- Below 1,025 feet: 500,000 acre-feet US Lower Basin shortage of which 480,000 is born by Arizona.</li> <li>- Below 1,025 feet, reconsultation required.</li> </ul> <p>The shortage guidelines are assumed to extend beyond 2026.</p>	
<b>Mexico Shortages</b>	<p>As specified in Minute 319, deliveries to Mexico will be reduced:</p> <ul style="list-style-type: none"> <li>- 50,000 acre-feet when Lake Mead is between 1,075 and 1,050 ft msl.</li> <li>- 70,000 acre-feet when Lake Mead is between 1,050 – 1,025 ft. msl.</li> <li>- 125,000 acre-feet when Lake Mead is below 1,025 ft msl.</li> </ul> <p>Mexico shortage sharing is assumed to be extended for the length of the modeling period.</p>	
<b>Arizona Priority 4 Shortage Sharing</b>	<p>The Director's recommendation to the Secretary is the agreement between the Priority 4 mainstem users and the CAP as described in the 2006 Shortage Sharing Agreement. Shortages for Priority 4 mainstem users would be based on their entitlements.</p>	
<b>Operation of Yuma Desalination Plant</b>	<p>Yuma Desalination Plant not operated.</p>	

Parameter	Arizona Baseline Assumptions	Remarks
<b>Upper Basin Demand Projections</b>	Upper Basin demand schedule with a build-up to 4.8 million acre-feet by 2031. 4.8 MAF of demands includes cultural depletions only.	Upper Basin depletion schedules updated through the Basin Study will be explored to evaluate the assumptions for location, timing and magnitude of depletion schedules.
<b>California and Nevada Demands</b>	Nevada and California demand projections as shown in the 2007 Interim Shortage Guidelines FEIS.	
<b>Arizona Mainstem Non-Indian Municipal Contractors Demands</b>	Mainstem municipal contractors' demands based on 2006 Department of Economic Security (DES) population projections for the period 2006 to 2055. The projections were extrapolated to 2110 using trend lines up to entitlement limits. The 2010 population was based on estimates made by DES.	These baseline assumptions were used for the WRDC and Basin Study.  Priority descriptions to be added
<b>Arizona Mainstem Non-Indian Industrial and Other Contractors Demands</b>	Mainstem industrial contractors demands based on the average consumptive use and diversion for the 2000-2012 period based on Reclamation's Water Accounting Reports.	
<b>Arizona Mainstem Non-Indian Agricultural Demands</b>	Mainstem agricultural contractors demands based on the average consumptive use and diversion for the 2000-2012 period based on Reclamation's Water Accounting Reports.	P4 conversion to M&I uses by 2035 will be considered.
<b>Arizona Mainstem Tribal Demands</b>	Mainstem tribal demands based on the average consumptive use and diversion for the 2000-2012 period based on Reclamation's Water Accounting Reports.	The Ten Tribes schedule is an alternate schedule that was developed in 2000 and used in the Interim Surplus FEIS and the 2007 Interim Guidelines FEIS. The Ten Tribes schedule has depletions greater than the Arizona Baseline Assumptions by about 130 kaf.

Parameter	Arizona Baseline Assumptions	Remarks
<b>Central Arizona Project (CAP) Municipal and Industrial Priority Demands</b>	CAP M&I demands increase to full subcontract utilization by 2045. Additionally, the Pool increases by 47,303 acre-feet beginning in 2044 due to the conversion of NIA Priority Hohokam water. Also assumes full utilization of M&I priority water allocated to San Carlos Apache Tribe by 2045.	
<b>CAP Indian Priority Demands</b>	CAP Indian Priority demands increase to full contract utilization, including full use of existing long-term leases and exchanges, by 2045. Within that usage, assumes an additional 55,000 acre-feet of the priority pool will be leased and utilized by M&I users by 2045.	
<b>CAP Non-Indian Agricultural (NIA) Priority Demands</b>	CAP NIA Priority pool fully utilized by 2045. After 2043, the NIA Priority Water is reduced by 47,303 acre-feet due to the Hohokam conversion. The reallocation of the 96,295 AF for M&I uses occurs in two rounds: 55,255 AF allocated by 2015 and fully utilized by 2020; 41,040 AF allocated by 2023 and fully utilized by 2028. The 67,300 reserved for future Indian Settlements is used in two parts: 23,782 by the White Mountain Apache in 2016, and the remainder (43,518 AF) is allocated by 2036 and fully utilized by 2045.	
<b>CAP Agricultural Settlement Pool Demands</b>	This pool of excess CAP water is assumed to be fully utilized: 400,000 AF through 2016; 300,000 AF through 2023; and 225,000 AF through 2030.	
<b>CAP System Shortages</b>	Distribution of shortages among the CAP priority "pools" (Excess, including Ag Pool, NIA, CAP Indian and M&I) as described in the Gila River Indian Community Water Rights Settlement Agreement	Results will be stated for the priority category (pools) and not to individual contractors.

## Re-evaluation of 1997 AWBA Firming Goals

The current AWBA firming goals were developed in 1997 in conjunction with the AWBA identifying a reasonable number of long-term storage credits accrued with general fund appropriations for use by Colorado River M&I users outside the CAP service area. The goals were developed utilizing the modeling tools and assumptions available at the time the models were run. Since those goals were established, there have been several changes in how the Colorado River is operated and modeled. The latest changes to the model have evolved out of the basinwide studies. Because of the changes in the model, it is reasonable for the AWBA to use this revised model and re-evaluate the goals established in 1997.

Two scenarios will be utilized for this re-evaluation:

1. **Interim Guidelines extended** (the Interim Guidelines terminate at the end of 2026, this scenario would extend the operating rules utilized for the interim period for the entire planning period)
  - a. Modeled utilizing the Director's Recommended Arizona Shortage Sharing Guidelines for the entire planning period (prorating the shortage amounts based on entitlements)
  - b. Modeled utilizing Arizona shortage sharing base on prorating the shortage amounts based on annual uses for the entire planning period
  
2. **Interim Guideline Preferred Alternative** (utilizing the Interim Guidelines through 2016 and then utilizing an 80P operating philosophy. The 80P philosophy is a probabilistic protection of Lake Mead elevation of 1050 feet with an absolute protection Lake Mead elevation 1000 feet)
  - a. Modeled utilizing the Director's Recommended Arizona Shortage Sharing Guidelines for the entire planning period (prorating the shortage amounts based on entitlements)
  - b. Modeled utilizing Arizona shortage sharing base on prorating the shortage amounts based on annual uses for the entire planning period

IV. Draft 2014 Plan of Operation

**NOTES:** (Direction for staff)

Call on **Virginia O'Connell** to discuss the Draft 2014 Annual Plan of Operation

- Draft Water delivery schedule (Table 2)
- Water/facility rates
- Funding availability
- Future public meetings to discuss the draft Plan

**ACTION:**

Direction for staff to schedule and hold public meetings on the Draft 2014 Plan of Operation in conjunction with the Groundwater Users Advisory Council Meetings in the Phoenix, Pinal and Tucson AMAs.

**Table 2  
Water Delivery Schedule (Acre-Feet)  
Calendar Year 2014**

AWBA-Recharge Sites		Permitted Capacity (AF)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
<b>PHOENIX AMA :</b>															
<b>USF</b>	HIEROGLYPHIC MTN	35,000	0	0	0	0	0	0	0	0	0	0	0	1,000	1,000
	AGUA FRIA	100,000	0	0	0	0	0	0	0	0	0	0	0	2,438	2,438
	TONOPAH DESERT	150,000	0	0	0	0	0	0	0	0	0	0	0	6,000	6,000
	SUPERSTITION MTNS	35,000	0	0	0	0	0	0	0	0	0	0	0	3,000	3,000
															12,438
<b>GSF</b>	NEW MAGMA	54,000	0	0	0	0	0	0	0	0	0	0	0	0	0
	QUEEN CREEK	28,000	0	0	0	0	0	0	175	1,343	2,285	1,142	1,143	1,142	7,230
	TONOPAH ID	15,000	0	0	0	0	0	0	0	0	0	0	0	0	0
															7,230
<b>AMA TOTAL INTRASTATE</b>			0	0	0	0	0	0	175	1,343	2,285	1,142	1,143	13,580	19,668
<b>PINAL AMA :</b>															
<b>GSF</b>	CAIDD	110,000	0	0	0	0	0	0	0	6,000	0	0	0	0	6,000
	HOHOKAM	55,000	0	0	0	0	0	0	0	1,500	1,500	1,500	1,500	0	6,000
	MSIDD	120,000	400	500	900	900	900	500	200	200	400	400	500	200	6,000
															18,000
<b>AMA TOTAL INTRASTATE</b>			400	500	900	900	900	500	200	7,700	1,900	1,900	2,000	200	18,000
<b>TUCSON AMA:</b>															
<b>USF</b>	AVRA VALLEY	11,000	0	0	0	0	0	0	0	0	0	0	300	700	1,000
	LOWER SANTA CRUZ	50,000	1,000	1,000	1,000	0	0	0	0	0	0	2,000	1,000	1,000	7,000
	PIMA MINE ROAD	30,000	0	0	0	0	0	0	0	500	1,000	1,000	500	1,000	4,000
	CAVSARP	100,000	0	0	0	0	0	0	0	0	0	0	0	0	0
	SAVSARP	60,000	2,000	2,000	2,000	2,000	0	0	0	0	0	0	2,000	2,000	12,000
															24,000
<b>GSF</b>	CORTARO-MARANA ID	20,000	0	0	0	0	482	1,000	1,000	750	0	0	0	0	3,232
	KAI FARMS (Red Rock)	11,231	0	0	0	0	0	0	0	0	500	500	0	0	1,000
	BKW Farms	14,316	0	0	0	0	0	0	0	0	0	0	0	0	0
															4,232
<b>AMA TOTAL INTRASTATE</b>			3,000	3,000	3,000	2,000	482	1,000	1,000	1,250	1,500	3,500	3,800	4,700	28,232
<b>TOTAL INTRASTATE</b>			3,400	3,500	3,900	2,900	1,382	1,500	1,375	10,293	5,685	6,542	6,943	18,480	65,900
<b>TOTAL INTERSTATE</b>			0	0	0	0	0	0	0	0	0	0	0	0	0
<b>TOTAL RECHARGE</b>			3,400	3,500	3,900	2,900	1,382	1,500	1,375	10,293	5,685	6,542	6,943	18,480	65,900
<b>DIRECT DELIVERY (Non-Storage):</b>															
	Southside Replenishment Bank		0	5,000	0	0	0	0	0	0	0	0	0	0	5,000
	Southside Replenishment Obligation		0	0	0	0	0	0	0	0	0	0	0	0	0
	<b>TOTAL DIRECT</b>		0	5,000	0	0	0	0	0	0	0	0	0	0	5,000
<b>TOTAL DELIVERIES</b>			3,400	8,500	3,900	2,900	1,382	1,500	1,375	10,293	5,685	6,542	6,943	18,480	70,900

**Table 3. 2014 Water and Facility Rates**

<b>Recharge</b>	<b>Cost per Acre-foot</b>
CAWCD delivery rate to AWBA for water storage	\$166
Interstate rate	\$189
Groundwater Savings Facility operator cost share rate <sup>1</sup>	
Intrastate	
Phoenix and Pinal AMAs	\$34
Tucson AMA	\$16
Interstate	\$26
Underground Storage Facility rate paid by AWBA	
CAWCD – Phoenix Facilities <sup>2</sup>	\$8
CAWCD – Tucson Facilities <sup>3</sup>	\$15
Avra Valley Recharge Project	\$15.45
Clearwater Facility (CAVSARP/SAVSARP)	\$15.62
<b>Direct Deliveries</b>	
CAWCD rate to AWBA for Southside Replenishment Bank deliveries	\$166

<sup>1</sup> This rate is paid directly to CAP by the GSF operators and is not available as revenue to the AWBA. The AWBA's rate for delivery of in lieu water is thus reduced to \$132/af for intrastate deliveries to the Phoenix and Pinal AMAs, \$150/af to the Tucson AMA, and \$163/af for interstate deliveries.

<sup>2</sup> Additional capital charge of \$15 per acre-foot for interstate storage.

<sup>3</sup> Additional capital charge of \$9 per acre-foot for interstate storage.

**Table 4. Funding for 2014 Annual Plan of Operation**

	Estimated Funds Available (\$)		Estimated Funds Utilized (\$)		Estimated Credits
	AWBA	CAWCD <sup>1</sup>	AWBA	CAWCD	(AF)
<b>Withdrawal Fees</b>					
Phoenix AMA	\$2,700,000	-	\$675,000	-	3,920
Pinal AMA <sup>2</sup>	\$2,440,000	-	\$2,406,000	-	10,980
Tucson AMA	\$400,000	-	\$397,000	-	2,070
<b>Four Cent Tax</b>					
Phoenix AMA	\$0	\$12,800,000	\$0	\$1,845,000	14,180
Pinal AMA	\$0	\$800,000	\$0	\$800,000	5,580
Tucson AMA <sup>3</sup>	\$0	\$3,100,000	\$0	\$3,100,000	16,100
<b>Other</b>					
<b>General Fund</b>					
Phoenix AMA	\$0				
Pinal AMA		-	\$0	-	0
Tucson AMA		-	\$0	-	0
		-	\$0	-	0
<b>Shortage Reparations (NV):</b>	\$1,500,000				
Phoenix AMA		-	\$0		0
Pinal AMA		-	\$0		0
Tucson AMA		-	\$1,500,000		7,800
<b>TOTALS</b>	<b>\$23,740,000</b>		<b>\$11,322,000</b>		<b>60,630</b>

<sup>1</sup> The figures shown are estimates provided by CAWCD staff, and are based on amounts anticipated to be collected during the 2013-2014 tax year. If utilization is greater than estimated, there may be additional funds held by CAWCD that could be made available at the discretion of the CAWCD Board of Directors.

<sup>2</sup> Includes expenditure for 5,000 acre-feet of direct deliveries to establish the Southside Replenishment Bank under the Gila River Indian Water Settlement Program.

<sup>3</sup> Estimates include revenue from CAWCD's capital charge for construction of state demonstration projects when facilities are used for interstate purposes and by entities that do not pay the 4¢ *ad valorem* tax.



Preliminary 2014 AWBA Plan of Operation

**Table 6. Projected Percent of Goals and Obligations Achieved through 2014**

Location and Objective	Funding Source	Goal	Obligation	Non-Credit Goal/Oblig. Achieved	Credits Accrued (AF)	Percent Goal/Oblig. Achieved
<b>Phoenix AMA</b> M&I Firming Groundwater Mgmt <sup>1</sup>	Ad valorem tax Withdrawal Fees	1,566,000 AF			1,349,914 305,652	86%
<b>Pinal AMA</b> M&I Firming Groundwater Mgmt <sup>1</sup>	Ad valorem tax Withdrawal Fees	243,000 AF			204,757 414,699	84%
<b>Tucson AMA</b> M&I Firming Groundwater Mgmt <sup>1,2</sup>	Ad valorem tax Withdrawal Fees	864,000 AF			412,296 97,542	48% 59%
<b>On-River M&amp;I Firming<sup>3</sup></b>	General Fund	420,000 AF			403,830	96% <sup>4</sup>
<b>Indian Settlements:</b> GRIC Firming	Withdrawal Fees	350,000 AF <sup>5</sup>	up to 15,000 AF/YR		0	0%
Future Settlements	Withdrawal Fees	200,000 AF <sup>5</sup>	up to 8,724 AF/YR		0	0%
Federal Assistance Tucson AMA	Appropriation Withdrawal Fees Cost of Services <sup>6</sup>		\$3,000,000	\$3,000,000 \$2,338,171 \$630,490 \$31,339	34,102 28,481 5,621 n/a	100%
Southside Repl. Bank	Withdrawal Fees		15,000 AF Direct Delivery		10,000	67%
<b>Other:</b> Shortage Reparations- Nevada Pinal Redirect Credits <sup>7</sup>	Gifts, Grants, Donations N/A	\$8,000,000		\$6,000,000	98,811 14,125	75% N/A

<sup>1</sup> Withdrawal fees could be utilized in addition to 4¢ ad valorem tax revenues for M&I firming if needed to reach firming goals.

<sup>2</sup> Includes 234 AF credits acquired from the Tohono O'odham Nation pursuant to §45-841. 01.

<sup>3</sup> By resolution passed in 2002, the AWBA established on-river firming as the highest priority of use for credits accrued through expenditure of general fund appropriations. 256,174 AF of credits reserved pursuant to contract with Mohave County Water Authority.

<sup>4</sup> This percentage reflects full utilization of general fund credits accrued to date and would change as other objectives are identified by the AWBA.

<sup>5</sup> Based on estimates from the Indian Firming Study Commission Report dated January 6, 2006.

<sup>6</sup> Include \$14,883 and \$16,456 deducted for payment of cost of services for FY08 and FY09, respectively.

<sup>7</sup> Credits accrued from 15,000 AF of water that was scheduled for the Tucson AMA and redirected to the Pinal AMA for storage at GSFs. These credits are currently identified for M&I firming in the Tucson AMA and would meet 1% of the firming goal.

V. Action Planning

**NOTES: Potential Action**

Call on **Virginia O'Connell** to brief Commission members on a proposal for authorizing the AWBA to purchase long-term storage credits.

Documents in your books include:

- Discussion paper
- Draft agency legislative proposal

**ACTION:**

Move approval to proceed with developing a legislative proposal amending AWBA statutes to expand the AWBA's authority to use funds in the Arizona Water Banking Fund for the purpose of purchasing of long-term storage credits.

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**NOTES:** (Direction for staff)

Call on **Virginia O'Connell** to brief Commission members on a proposal for requesting a General Fund appropriation to assist in meeting the AWBA's Indian firming obligations.

**ACTION:**

Direction for staff to continue evaluating the utilization of General Fund appropriations for meeting the AWBA's Indian firming obligations and to provide recommendation on the amount and purpose for a General Fund appropriation at the AWBA meeting on October 16<sup>th</sup>.

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Call on **Virginia O'Connell** to provide an update on progress toward the action planning process.

**ACTION:** no action

# **Proposed Legislation Authorizing the Arizona Water Banking Authority to Purchase Long-term Storage Credits (Discussion Paper)**

## **Summary**

The Arizona Water Banking Authority (AWBA) was given several objectives when it was established in 1996, which include protecting municipal and industrial (M&I) water users during times of drought, facilitating Indian water rights settlements, and assisting in meeting the State's water management objectives. The AWBA meets these objectives through the storage of Central Arizona Project (CAP) water. While the AWBA has stored over 3.4 million acre-feet (MAF) of CAP water, resulting in 3.2 MAF of long-term storage credits (credits), the AWBA has not yet met its storage goals. The amount of CAP water available to the AWBA has decreased significantly the last few years as use by other higher priority CAP water users has increased. Water availability will further decrease if Colorado River water becomes limited by on-going drought. The decrease in supplies coupled with increasing costs will put the AWBA further behind in meeting its goals and limit its ability to provide critical supplies when needed. A legislative change that authorizes the AWBA to purchase credits could help address the issue of decreased CAP supplies available to the AWBA.

## **Proposal**

Amending the statutes to provide the AWBA the authority to purchase credits would facilitate the achievement of AWBA goals and obligations by allowing the AWBA to accrue credits even in years when CAP supplies are curtailed or unavailable. The ability to purchase credits would give the AWBA additional flexibility as it works towards accomplishing its firming goals, while also expanding opportunities for meeting water management objectives by acquiring credits stored in areas where direct storage of CAP water by the AWBA is not available. By purchasing credits the AWBA could accrue more credits at or near today's rates which could reduce the AWBA firming cost.

In addition, the AWBA is obligated to replace existing general fund appropriation credits after they are used to firm non-Indian supplies. The need to replace these credits could occur at a time when water is unavailable to the AWBA making it difficult to replace the credits through traditional storage. The ability to purchase otherwise unused credits could improve the AWBA's ability to quickly replace the credits so that they can once again be available for firming supplies. It would also assist the AWBA in determining the cost of the replacement credits that must be paid by the entity that benefitted from the credits.

## **Background and Issue**

The AWBA was established by the Legislature in 1996 to store Arizona's unused Colorado River entitlement to protect Arizona M&I water users against future shortages, to facilitate Arizona Indian water rights settlements, and to assist the state in fulfilling the water management objectives of the 1980 Groundwater Code. By storing water, the AWBA accrues credits that can be recovered to provide critical backup supplies ("firming") of Colorado River and CAP water during shortages. The credits can also be extinguished to mitigate the effects of groundwater pumping on the aquifer.

To date, the AWBA has accrued over 3.2 MAF of credits to meet Arizona's future water needs. Of this amount, approximately 2.5 MAF of credits have been accrued for M&I and Indian firming

purposes and about 676,000 have been accrued for meeting groundwater management objectives. Based on the current estimated firming goals totaling 3.6 MAF, the AWBA will need to store roughly 1.2 MAF of CAP water to accrue the additional 1.1 MAF of credits that are needed. The current firming goals are best estimates of supplies that may be needed in the future. These estimates could change if hydrologic conditions change as certain climate models would suggest. Furthermore, while the AWBA may have an estimated numeric goal for meeting Indian firming needs (550,000 AF), the AWBA is required to provide back up supplies whenever they are needed during the 100-year firming timeframe, the actual amount needed could exceed that goal.

The annual volume of CAP water available to the AWBA for storage has decreased significantly since 2010 due to increased use by higher priority water users. While this increase in use was anticipated, it occurred earlier than expected and has affected the AWBA's ability to store the volumes of water originally projected. In 2013, the AWBA had only 53,000 acre-feet of CAP water available for storage: 40 percent of AWBA 2012 storage and 21 percent of AWBA average annual historic storage volume of 253,000 acre-feet.

The magnitude of the impact is apparent when the AWBA's 2012 and 2013 ten-year planning projections are compared. The 2012 projections identified over 1.2 MAF of CAP water available, while 2013 planning projections show that only 690,000 acre-feet would be available over the next ten years. These volumes may also be optimistic given the recent projections by the Bureau of Reclamation that suggest that if current hydrologic conditions on the Colorado River persist, Arizona could face its first ever shortage by 2016. The potential shortage is not expected to result in a firming requirement for the AWBA, however it would mean the AWBA would not have supplies available for storage in 2016 and perhaps future years because of its status as a low priority CAP water user.

The amount of water that the AWBA can actually use for storage is also influenced by the cost per acre-foot of CAP water, which has increased significantly the last few years and is slated to increase annually due to higher energy costs. The increasing costs could further reduce the amount of water that can be stored by the AWBA. The decrease in supplies in conjunction with increasing costs will put the AWBA further behind in meeting its goals and its ability to provide critical supplies when they are needed.

The AWBA's authority to purchase credits is not unprecedented, but is however only allowable under limited circumstances. The AWBA is currently authorized to purchase credits accrued by the Tohono O'odham Nation although the amount of credits available for purchase under this authority are limited and there are restrictions as to where these credits can be recovered. The AWBA can also purchase credits if they are needed to meet a replenishment obligation in the Southside Protection Zones established under the Gila River Indian Water Settlement Program.

Recognizing the AWBA's responsibilities, particularly as the agent of the state for meeting Indian settlement obligations, the AWBA was given the statutory authority to obtain and store other renewable supplies when CAP water is unavailable. While these other resources may prove essential, the ability to store these supplies could also require the installation of costly infrastructure if the water is located in areas where recharge facilities are not readily accessible. Authorizing the AWBA to purchase existing credits could provide a more cost-effective alternative.

## AGENCY LEGISLATIVE PROPOSAL

**Agency:** Arizona Department of Water Resources (ADWR)

**Division:** Arizona Water Banking Authority (AWBA)

**Potential Sponsors:** To be Determined

**Proposal:** Amend Title 45, Chapter 14 Arizona Water Banking Authority statutes to expand the AWBA's authority to purchase long-term storage credits for water banking purposes using any funding source available to the AWBA.

**Background/History:** The AWBA's mission is to store Central Arizona Project (CAP) water underground to offset future shortages to municipal and industrial (M&I) water users and certain Indian Tribes during times of drought, and to assist in meeting the State's water management objectives. CAP water available to the AWBA has decreased significantly due to increased use by higher priority water users. Water availability will further decrease if Colorado River water becomes limited by on-going drought. Diminishing supplies coupled with increasing costs will put the AWBA further behind in meeting its goals putting users at risk during future shortages.

The AWBA currently has authority to purchase credits under very narrow circumstances. Expanding this authority for other water banking purposes would allow the AWBA to accrue credits even in years when CAP supplies are curtailed or unavailable. The ability to purchase credits would give the AWBA more flexibility in meeting its firming obligations, while also expanding opportunities for meeting water management objectives by acquiring credits located in areas where direct storage of CAP water by the AWBA is not possible. Finally, by purchasing credits, the AWBA could accrue more credits at today's rates reducing firming costs.

The AWBA is also obligated to replace existing credits accrued with general fund appropriations after they are used to firm non-Indian supplies. The need to replace these credits could occur at a time when water is also unavailable to the AWBA making it difficult to replace the credits through traditional storage. The ability to purchase credits would allow the AWBA to quickly replace the credits making those credits immediately available to once again firm supplies. It would also help clarify the cost of replacing credits that must be paid by the entity that benefitted from the credits.

**Statutes Affected:** Arizona Revised Statutes, Title 45, Chapter 14 §45-2457

**Fiscal Impact:** None

**Policy Impact on other Agencies:** To be determined

**Potential Supporters:** To be determined

**Potential Opponents:** To be determined

DRAFT 8-28-13

**Has this been run previously?** No.

**Can this be done administratively?** No.

**Language:**

DRAFT

## **Proposal for Requesting an Appropriation for Meeting Indian Settlement Obligations (Discussion Paper)**

### **Summary**

The Arizona Water Banking Authority (AWBA), as the agent for the State of Arizona (State), has an obligation to ensure that 23,724 acre-feet of non-Indian agricultural (NIA) priority Central Arizona Project (CAP) water is made available to certain Arizona Indian Tribes during times of shortage as described in the Arizona Water Settlements Act, P.L. 108-451 (Settlements Act). The AWBA is also obligated to deliver an initial 15,000 acre-feet of water to the Gila River Indian Community (GRIC) Reservation to create a bank of water that can be used to replenish excess groundwater pumped from areas surrounding the Reservation. In recognition of these new responsibilities, in 2006 the Legislature provided the AWBA with additional tools for implementing an Indian Firming Program, which included a general fund appropriation of \$13.5 million and the ability to use withdrawal fee revenues after any general funds are utilized. However, shortly after the Settlements Act became enforceable in December of 2007, the Legislature swept \$12.4 million in general funds dedicated for Indian firming and an additional \$5.1 million in withdrawal fees. The loss of these funds in conjunction with a significant increase in CAP water rates has made it difficult for the AWBA to make progress on its firming obligations. To add further complication, the amount of CAP water available to the AWBA for storage has decreased sharply in recent years and may be unavailable altogether if a Lower Colorado River shortage is declared in the coming years as the Bureau of Reclamations's August 2013 24-month study suggests. The decrease in CAP water supplies coupled with increasing costs and limited funds will put the AWBA further behind or impair its ability to meet the State's Indian settlement responsibilities.

### **Proposal**

Incrementally appropriating funds previously swept from the Arizona Water Banking (AWB) Fund would improve the AWBA's ability to seek and secure agreements with Indian tribes that provide alternative ways for meeting the State's Indian settlement obligations and limit the State's exposure to these obligations. A general fund appropriation now would also allow the AWBA to take advantage of any additional water supplies that may become available to the AWBA so that additional credits can be accrued for Indian firming. If additional credits are not developed and/or a limit is not put on the State's exposure, the AWBA would likely have to seek future general fund appropriations to purchase water to firm Indian supplies in the future, when costs are expected to be significantly higher in an environment of decreased supplies and increased competition.

A general fund appropriation for Indian firming at this time would also free-up withdrawal fee revenues so that they could potentially be used for meeting the State's other water management goals such as mitigating overdraft, assisting Active Management Areas (AMAs) in meeting the legislatively established management goals, improving aquifer health, and providing critical water supplies to CAP municipal and industrial (M&I) customers during shortages.

## Background and Issue

In December, 2004, the State accepted specific obligations to develop an Indian Firming Program pursuant to the Settlements Act. In 2006, the Legislature authorized the AWBA to carry out the State's obligation under the Settlements Act, which requires the State to:

- Firm 15,000 acre-feet of NIA priority CAP water re-allocated to the GRIC,
- Firm 8,724 acre-feet of NIA priority CAP water re-allocated in the future to Arizona Indian tribes: 3,750 acre-feet of which is now held in reserve for the White Mountain Apache Tribe.

The State is required to firm NIA priority CAP water for a 100-year period during times of shortage and to deliver the water in the same manner that water with an M&I priority is delivered during water shortages. The Indian Firming Study Commission (IFSC) estimated the 100-year firming amount to be approximately 550,000: 350,000 acre-feet for the GRIC and 200,000 acre-feet for future settlements. The IFSC Final Report (January 2006) also estimated that the cost to accrue credits through traditional storage would range from \$25 to \$53 million depending on the type of storage facility used.

In addition to the firming requirements, the AWBA is required to deliver an initial 15,000 acre-feet of water to the GRIC for the purpose of establishing the Southside Replenishment Bank. The Southside Replenishment Bank will fulfill the obligations created under the Settlements Act for protection of the Reservation from off-reservation groundwater pumping.

In recognition of these additional responsibilities, the Legislature authorized the AWBA to establish a reserve account in the AWB Fund for implementing the Indian Firming Program and, in October 2006, deposited \$13.5 million to the account. The AWBA was also authorized to utilize withdrawal fees collected in the Phoenix, Pinal, and Tucson Active Management Areas (AMA) in the absence of legislative appropriations. However, only Pinal AMA withdrawal fee revenues may be used for meeting replenishment activities. Since August of 2008, the Legislature reappropriated \$12.4 million from the Indian firming reserve account and over \$5.1 million from the withdrawal fee accounts.

The AWBA has accrued roughly 105,000 acre-feet of credits from water stored on the GRIC Reservation that can be used to firm supplies for the GRIC during shortages, leaving an estimated 445,000 acre-feet of credits needed overall. The cost to accrue these credits at 2014 rates ranges from \$63 to \$83 million. However, while the AWBA may have a goal for meeting Indian firming needs, the AWBA is required to provide back up supplies whenever they are needed, which could exceed current projections due to external factors such as long-term reductions in Colorado River supplies or increased demand. Additionally, the AWBA has delivered 5,000 acre-feet of water to the Southside Replenishment Bank. The cost for delivering the remaining 10,000 acre-feet is estimated at \$2 million. The AWBA's ability to meet these obligations will be compromised by increasing CAP water costs, minimal funding resources, and severe reductions in the water supplies available to the AWBA.

CAP water available to the AWBA has decreased significantly since 2010, while costs have steadily increased. For 2013, the AWBA had only 53,000 acre-feet of CAP water available for



storage (21% of the average annual historic storage volumes). Current planning projections show that the AWBA will only have an estimated 690,000 acre-feet of water over the next ten years to meet all of its goals and obligations, including Indian firming (only 58 % of the ten-year estimates developed in 2012). These volumes are likely optimistic given the recent projections by the Bureau of Reclamation that suggest Arizona could face its first ever Colorado River shortage by 2016. This would mean that the AWBA would not have supplies available for 2016 and possibly for subsequent years, if consecutive shortages are declared. With no CAP water supplies, the AWBA will need to acquire alternative supplies that would require the expenditure of funds that are simply not available to the AWBA. Annual revenues from withdrawal fees are approximately \$3.2 million.

The AWBA's requirement to firm Indian supplies was imposed atop its prior responsibilities. Although the AWBA may use previously accrued withdrawal fee credits for Indian firming purposes, doing so divert those credits from the State's other existing water management objectives. The AWBA's need to firm Indian supplies will come at a time when the availability of CAP Agricultural Pool water is expired or has been depleted and farmers have returned to groundwater pumping to meet irrigation needs. This increase in groundwater pumping could reverse much of the State's progress on reducing overdraft and meeting the management goals of the AMAs. Withdrawal fees credits used for Indian firming will not be available to potentially mitigate the effects of groundwater pumping. It will also impact the AWBA's ability to meet its firming goals for CAP M&I priority subcontractors, particularly in the Tucson AMA, where the AWBA's progress in meeting its firming goals is limited by insufficient funding resources.

Restoring the funds previously swept from the AWB Fund would improve the AWBA's ability to seek alternative ways for meeting the State's Indian settlement obligations in addition to traditional storage. These opportunities could also result in limiting the State's future exposure to its firming responsibilities, resulting in reduced overall costs. In addition, a general fund appropriation for Indian firming now would allow the AWBA to use withdrawal fee revenues for aquifer management purposes, as they were originally intended.

VI. Call to the Public

**Future Meeting Dates:**

Wednesday, October 16, 2013

The December meeting has been rescheduled for Wednesday, December 4, 2013