

Colorado River Citizens Forum
Yuma County Department of Development Services
Yuma, AZ
July 26, 2017
***Tentative Meeting Notes**

Board Members in attendance:

Roberta (Bobbi) Stevenson-McDermott, Yuma Natural Resource Conservation District Member,
Arizona Association of Conservation Districts Board Member
Gary Knight, Yuma City Councilmember, Yuma, AZ
Juan Leal-Rubio, Senior Planner, Yuma County Department of Development Services
Ray Castillo, Imperial County Board of Supervisors
Alex Steenstra, Northern Arizona University Yuma
Glen Freeman, Retired – Bureau of Land Management

Alternate:

Vic Nguyen, Colorado River Board of California

USIBWC Staff in attendance:

Anna Morales
Miles Lampo

25 Members of the public in attendance.

Welcoming and Introduction Remarks:

At 4:00PM Citizens Forum Co-chair Anna Morales convened the meeting by welcoming the group and provided a brief description of the meeting agenda items. Board members and audience attendees were asked to introduce themselves. Mrs. Morales introduced herself and turned the meeting over to the first presenter

Presentation One: Perri Benemelis, Manager, Water Supply Program, Central Arizona Groundwater Replenishment District (CAGRDR), gave a presentation on a pilot fallowing program that took place from 2014 through 2016. Good for Business, Good Water Management

Andrew Craddock, Analyst, CAGRDR Water Supply Program gave a brief overview of the CAGRDR. New development in Arizona's large metropolitan areas must comply with the State's Assured Water Supply Program requirements that are among the most stringent in the country to protect groundwater supplies. Membership in the CAGRDR provides one mechanism for meeting this requirement.

It is operated by the Central Arizona Water Conservation District (CAWCD) throughout three counties in the areas of Phoenix, Pinal County, and Tucson.

– Two types of members

1. Member service areas. The service area of a city, town or private water company. There are 24 areas – 10 in Phoenix, 4 in Pinal and 10 in Tucson.
2. Member Lands, an individual subdivision.

The CAGRDR is a part of CAWCD (same legal entity) and is responsible for replenishing members' groundwater pumping. The water that is taken out has to be balanced with water recharge. CAGRDR's Water Supply Program (WSP) is responsible for acquiring water supplies to meet its members' replenishment obligation. The program began in 2012. There have been 21 water supply acquisitions to date: Long-Term Storage Credits, 100-year effluent, Central Arizona Project (CAP) Municipal & Industrial and Non-Indian Agricultural (NIA) priority water, plus Quartzsite lease and Yuma Mesa Irrigation and Drainage District (YMIDD) pilot fallowing program. The current replenishment obligation is slightly less than the supply of approximately 37,000 acre-feet per year. The projected obligation by 2034 is 86,900 acre-feet per year. Charges are assessed per acre-foot and per lot as the CAGRDR Member Land Assessment Rate.

Question and Answer (Q&A):

Q: Land assessment, is that what contractors pay or do the homeowners pay?

A: The homeowner.

Q: Where will you get the water?

A: Long term storage credit, non-irrigated Indian water, the advantage of the program is there is a variety of supplies.

Q: Is there a lot of water coming from the Colorado River?

A: No credits are coming from the Colorado River so far.

Q: Is the 100-year water plan up to your organization?

A: No, it is up to the Arizona Department of Water Resources.

Next, Perri Benemelis provided a presentation of the Yuma Mesa Irrigation & Drainage District (“YMIDD”) Pilot Rotational Fallowing Program:

The YMIDD is characterized as having sandy soils, which makes for a lot of challenges for farming. An agreement for the program was entered several years ago. Under the program, a water entitlement holder voluntarily agrees to conserve the use of a portion of the approved annual consumptive use of Colorado River water. Conservation savings are quantified based upon the foregone beneficial water use that would otherwise have occurred. The conserved water is saved in Lake Mead.

In 2008 – 2010 YMIDD participated in a U.S. Bureau of Reclamation Demonstration Program for System Conservation of Colorado River water. Issues made it difficult to enroll and plan such as:

- Federal budget issues
- Determining water use Baseline
- Could not measure/confirm water savings

The pilot study was short term and there was an insufficient amount of data to measure water savings. One reason for the lack of participation was growers didn’t know if it was worth participating in due to lack of information.

Subsequently, in 2013, the CACD board approved the YMIDD and CAGR Pilot Program for a 2-3 year term, to be re-evaluated at year 3. Implementation began in January 2014. Through the program, farmers are paid to fallow lands that would otherwise be farmed. This conserved water is then saved in Lake Mead. Because of the resulting improvement in Lake Mead storage, this helped to avoid shortages on the Colorado River that are applied when Lake Mead reaches certain low elevations. Approximately 1,500 acres were fallowed accounting for approximately 10% of current irrigated acres within YMIDD.

The program had certain requirements and limitations such as the “Qualified Land” had to be land that truly would have been farmed on if not enrolled in the program, enrollment was capped at 15.7% of the total irrigated acres for most landowners. (Base Price was equal to \$750/AC. Approximately \$160 per acre-foot.

The Pilot Program objectives were to develop data, methodologies and processes to inform a future longer-term water supply fallowing program and to quantify water savings. Also, to prove that mutually beneficial, willing seller / willing buyer, temporary agriculture to urban water transfers are possible (i.e., proof of concept).

Scientific measurements were taken to quantify the volume of water savings, which were calculated as 6,827 acre-feet for 2014, 7,180 acre-feet for 2015, and 7,509 acre-feet for 2016.

A lot of lemon farmers enrolled in the program, they stated that having extra funds per acre gave them incentive to remove old lemon trees out of production early. It also helped diminish pest load.

Pilot Program Benefits were identified as:

- It provides a stable revenue stream for YMIDD farmers with limited impact on current farming operations. Farmers knew it was a three-year program, which helped them plan.
- Avoids permanent loss of productive agricultural land and avoids or minimizes any adverse local economic impact.
- Enhances existing rotational farming practices.
- Serves an agronomic benefit by allowing a longer rest-rotation than normal practice. There is reduced soil pests and increased yields.
- Allows CAGR to develop data, methodologies and processes to inform a future longer-term term water supply fallowing program. Developed good relationships with on-river entitlement holders.

- Conserved water supply retained in Lake Mead to minimize or avoid shortages to water users in Arizona and the Lower Colorado River Basin.

Question and Answer (Q&A):

Q: Is there a summary report available?

A: It is in process. We are working with the district. A brief report will be published and made available.

Q: Were there any provisions to prevent erosion?

A: The district had to conduct weed control and dust control.

Q: Was there a centralized point to measure return flow?

A: Measured drains, water diverted to district, return flows and unmeasurable flows are all available on Reclamation's annual water accounting report.

Q: How was the return flow credited if the land was not in use?

A: We didn't have a return flow credit if land was fallowed.

Q: Were there program documents to explain the program?

A: A report is in the process and it will be out in a couple of months and will be made available to the board.

Q: Did individual districts get conservation credits?

A: It was accounted as savings to Lake Mead contributed by YMIDD. Consumptive use was accounted by farmed lands. No farmers had adverse impacts.

Pat Morgan, YMIDD, commented that the arrangements are complicated to explain. The District itself does not benefit from the program. The District was provided administration funding during the program. It did help farmer lands improve and have revenue to pull out old trees out of production.

Q: Are farmers on board to continue something like this again?

A: Yes, farmers are interested to do this again for an extended period of time.

Q: Were there negative impacts?

A: No, as long it's not a permanent or long-term program.

Presentation Two: Russell Engel, Arizona Game and Fish Department Fisheries Program Manager presenting Aquatic Invasive Species

An aquatic invasive species is a species introduced into an area where it was not native and lives on or near water. The can adversely impact:

- Native ecosystem, competitive with plants and animals already there.
- Human activity, such as boating and water deliveries.
- Local economy. An example would be if an infestation in Lake Havasu would happen, boaters/visitors would stop going and the cost to control or eradicate the species would impact the city's economy.
- Human health and safety

Exotic invasive species are an issue for a number of reasons: the new species can simply take up habitat and resources that native species would have used, so it creates more competition. They can also have negative effects on human activity, for example exotic invasive fish taking over a fishing spot, invasive mussels can clog pipes and engines, exotic invasive trees and shrubs can make allergies worse, and many others.

The Quagga mussel was first discovered in Lake Havasu in 2007, then discovered in Lake Mead and Lake Powell. They take up resources that native mussels would have used. The mussels clog pipes, attach and cover any surface, and

displace native mussel species. Everything found upstream of Yuma, will most likely arrive downstream to Yuma in the near future. There is no effective way to control or eradicate them in large scales.

Discovered in the Colorado River in 1999, the Giant Salvinia is a small free-floating plant that grows in clusters on the water surface. It's all over our region. Giant Salvinia is known to take over areas, can deplete the local oxygen level, and potentially cause fish kills. The Salvinia was traced back to the Palo Verde Irrigation District (PVID) drains. Essentially the same concept as other invasive species in that it was found upstream and floated downstream. PVID used chemical and biological control using a beetle. The beetle would eat the plant. The plant has been seen throughout the river system in drains, river and backwaters.

Another invasive species, the Banded Water Snake has been found in Mittry Lake and in Squaw Lake. They are not aggressive, but do compete with native snake species for habitat and resources. A team was put together to determine the extent of the snake. First year of the study trapped 20 snakes mostly in Mittry Lake. There were several female snakes with eggs. We removed over 50 snakes last year. There have been reports of the snake in Squaw Lake and Yuma.

Q: Are the snakes aggressive?

A: No

Q: Why are they bad?

A: They are competitive with native species. They are not poisonous nor dangerous. They eat tad poles and bullfrogs. How dense they get would be the problem. It is legal to kill them.

A nonnative fish, the Gizzard Shad, has been discovered in Lake Havasu, upstream of Lakes Powell, Mohave and Mead. Gizzard Shad's population exploded when it was introduced to the Colorado River Basin, but since then the population has leveled off. Flathead catfish feed on shads.

Water Hyacinth and Water Lettuce were reported by a fisherman fishing at Ferguson Lake. Water Hyacinth can infest millions of acres. It breaks apart and reproduces very quickly, two times worse than salvinia. It doubles in size within 7-14 days. Plants were found locally, but did not spread thankfully. It was suspected that the water temperatures weren't ideal for Water Hyacinth.

Crayfish have been in the regional water for so long that it is now naturalized. We don't recognize it as a pest or invasive anymore. There are no large impacts that we have seen, and they are good to eat. Bullfrog Is another invasive species that's good to eat.

Apple Snail has been discovered in the Yuma area. They are characterized by large shells and pink eggs. They are common. Some years they are more prevalent than others. They have not had a huge impact. They have been seen in the lower Gila River.

The Armored Catfish species was found in the 242 Lateral and the Wellton Mohawk Canals. Arizona Game & Fish officials suspect it was an aquarium fish that was dumped in the canal system.

Pacu are related to piranha and are a common aquarium fish. Native from South America, they are vegetation feeders. They had been found in Lake Havasu and in the Yuma Main gravity drain. Arizona Game & Fish Officials don't suspect the Pacu to be reproducing, so hopefully they are isolated. We believe their source was personal aquariums.

Another species is the Grass Carp. Local entities are able to obtain Grass Carp permits to put them in canal systems in order to keep down weeds. Canals are required to have safeguards so they do not escape into the River. Before they purchase the fish, they have to install mesh screens on their gates to keep the fish in the canal. Officials have found several of the fish in the Colorado River and think that they came from the canals. The fish that are put in the canals are not able to reproduce, no young ones have been found and are not a threat to the local ecosystems.

Q: Do the fish have chips?

A: Some do and some don't. California does require chip, Arizona does not.

Q: Have they been tested for triploid?

A: Haven't tested as they are produced and raised. Haven't seen enough of them to worry about it.

Q: Were the ones found removed?

A: Yes

A snapping turtle was found in 2014 at the Imperial Dam trash racks. Arizona Game & Fish suspected it was released from an aquarium. It is not native to the area and we haven't seen more since.

Maria Gonzalez, Yuma County, commented the turtle has been seen by the water treatment facility.

A local fisherman caught a peacock bass in the Wellton Main Canal in 2010. Peacock bass are originally from lakes in Africa and are a popular sport fish. There have only been reports of just this one fish.

Mr. Engel showed a photograph of a shark that was found dead in the Yuma Canal in 2010. There were rumors that the shark swam up from the ocean, but that is impossible since the river doesn't reach the gulf. Arizona Game & Fish suspect its source once again was from a personal aquarium.

There was only one Caiman found in a hotel room under the bed. The owner of the Caiman was a collector traveling through and forgot it.

There was one large Monitor Lizard found at the Imperial Dam area in the early 2000's. Arizona Game & Fish said that after they got the call and drove to the scene to investigate, it was gone and no one has seen it since.

Closing Comments:

- It's illegal to let aquarium fish loose. If you are getting rid of it, do not let it loose in a canal or river. Kill it or contact Arizona Game & Fish.
- It's estimated that 90% of invasive species that are introduced are intentional.
- If you have a boat, there are protocols to remove invasive species each time your boat is removed from a body of water.
- If an invasive species is introduced upstream of Yuma, the chances of Yuma getting the invasive species is high.

Question and Answer (Q&A):

Q: Is there anything in the Upper Basin currently that we don't want here?

A: Yes, Snake Head, Grass Carp, and Asian Carp are three we have seen that we don't want.

Q: Are there many resources?

A: Not much, Department of Interior may have funding. Arizona Game and Fish does not have funding. There are active information and educational programs available. The focus is to prevent spreading such as laws for boaters when leaving a body of water.

Q: How do you clean water crafts for water lettuce?

A: There are protocols, Hazard Analysis-Critical Control Point (HACCP) evaluations for boats and equipment moving from one body of water to another. Other things that can be done, such as power wash your boat and use chemicals. Most often boaters let it dry for a few days as it will die.

Public Comment: None

Board Discussion and Future Agenda Items:

- Northern Arizona University (NAU) received grants to study contaminants in the Colorado River, would like a presentation /update on study.
- Colorado River Hydrology and August 24-month study update from Reclamation
- Update on Colorado River Minute 32x process or final Minute
- Update on the fire in the Santa Clara recently if there are any reports on it

Next meeting October 25th at the Imperial Irrigation District Board Room in El Centro, CA

The meeting adjourned at 5:51 pm

*Meeting notes are tentative and summarize in draft the contents and discussion of Citizens Forum Meetings. While these notes are intended to provide a general overview of Citizens Forum Meetings, they may not necessarily be accurate or complete, and may not be representative of USIBWC policy or positions.