

Pinal County Water Augmentation Authority

MEETING MINUTES

MINUTES OF JULY 11, 2023:

A meeting of the Pinal County Water Augmentation Authority was convened at 7:00 a.m. both remotely through technological means and in the Pinal County Offices in Casa Grande, Arizona.

Directors Present:

- Bill Collings, Papago Butte DWID
- Melissa Campbell, City of Coolidge
- Stephen Q. Miller, Pinal County
- Jake Lenderking, Water utilities without a CAP water subcontract
- Bob Marsh, City of Maricopa
- Matt Rencher, City of Eloy (at 7:02)
- Bryan Hartman, Maricopa-Stanfield Irrigation and Drainage District (at 7:04)
- Derek McEachern, Central Arizona Irrigation and Drainage District
- Fred Schneider, Water utilities with a CAP water subcontract (at 7:02)

Also Present:

- Joe Singleton, PCWAA Executive Director
- Jonathan Jennings, Advanced Weather Modification Solutions
- George Bomar, Advanced Weather Modification Solutions
- Lonnie Frost, Pinal County
- Brandon Gaylord, Pinal County
- Cheyenne Walsh, Compass Strategies
- Uri Segev, N-Drip
- Justin Chung, N-Drip
- Nathan Miller, MATRIX New World Engineering
- Pat Holbrook

P.O. Box 12684, Casa Grande, Arizona, 85130-2684

Office: 520-518-1726

Web: www.pcwaa-az.org

CALL TO ORDER:

Chairman Bill Collings called the meeting to order at 7:00.

APPROVAL OF MINUTES:

Joe Singleton indicated that there were several typos on pages 4 and 5 of the draft minutes that were sent to members before the meeting. Melissa Campbell moved to approve the minutes as amended. Bob Marsh seconded the motion, which carried 6-0. **CAMPBELL, COLLINGS, LENDERKING, MARSH, McEACHERN, MILLER.**

TREASURER'S REPORT:

Stephen Miller noted the total of the monthly bills, which included payment to Advanced Weather Modification Solutions. He asked if the lack of funding from ADWR for the recently-ended fiscal year still needed follow up. Joe Singleton said that he had been contacted by ADWR, who indicated by letter that ADWR would fund the Authority's FY23 budget request of \$200,000. Singleton added that while he had received the letter verifying this, that he had not yet received a check from the Department. Fred Schneider moved to accept the Treasurer's Report and pay the bills as presented. Melissa Campbell seconded the motion, which carried 9-0. **CAMPBELL, COLLINGS, HARTMAN, LENDERKING, MARSH, McEACHERN, MILLER, RENCHER, SCHNEIDER.**

PROCEEDING WITH BAKER TILLY FOR FY 2023 AUDIT:

Joe Singleton told members that the Authority did not receive much response to its advertising for audit work. He said that Baker Tilly, who merged with Henry & Horne, did submit a proposal, but indicated that they had issue with the wording of several items in the PCWAA Request for Proposals. Singleton said that he had followed up with Baker Tilly as well as PCWAA attorney Steve Cooper concerning the language and that while most of it was not particularly substantive, that Cooper did take larger issue with the Baker Tilly proposal concerning indemnification language. Singleton said that because of the timeframe in which the Authority had to complete an annual audit, as well as the lack of response to the advertising that it was recommended to proceed with Baker Tilly. Singleton added that the rate being charged for the audit was significantly more than the previous year, speculating that inflation was probably at least partially responsible. Bill Collings reminded members that Baker Tilly would represent some continuity in the work, as Henry & Horne had done the previous PCWAA audits. Collings said that he was somewhat concerned about the price increase in going from a local accounting and audit firm to an international one, but recognized the challenges created by the timing and scant response to the advertisement. Melissa Campbell moved to approve moving forward with Baker Tilly for the FY23 audit. Fred Schneider seconded the motion, which carried 9-0.

SUMMER CLOUD SEEDING STUDY:

Bill Collings noted that the staff from Advanced Weather Modification Solutions (AWMS) were attending in person and invited them to make a brief statement. Jonathan Jennings from AWMS thanked the Board and said it was good to see Pinal County in person. He noted that he had received notes on the draft Cloud Seeding report, which had been incorporated into the final draft. Jennings recapped his report, noting that weather modification appeared to be a solution to some of the water issues in the southwest. Jennings said that these kind of modification projects were going on all over the county and all over the world. He added that as more data is collected through ongoing projects, the more the science is proving out the positive benefits of the efforts. He said that he had collected 20 years of data in Texas, and noted that the clouds and their dust content were like those in Pinal County. He said that one caution of a weather modification program would be federal authorities monitoring for flood conditions. He noted that the National Weather Service in Tucson appeared to take an even-handed approach to such warnings. He told the Board that this could be an important issue, as in Texas it would qualify as reason to suspend cloud seeding activities. Jennings summarized the report findings, noting that they calculated 950 cloud targets over a 10-year period which could produce an additional 4.8 million acre-feet of rainfall. He noted that the project cost of \$225,000 for the season, and recommended that the Board proceed to a modification project.

George Bomar said that state requirements were less burdensome than in other places. Bomar thanked the Board for making them aware of the WRRRC Annual Conference, noting that AWMS was on the agenda to present at the conference tomorrow.

Pat Holbrook, an independent meteorologist, told the group that he had worked through the west and overseas and had positive experiences with cloud seeding. He recommended that the Board pursue cloud seeding for groundwater recharge.

Melissa Campbell asked if the data showed that increasing precipitation through cloud seeding in one area resulted in diminished precipitation in another area. Jonathan Jennings said that the science of seeding the cloud expands the total cloud moisture and the amount of precipitation made possible. He said that the data indicated increased precipitation downstream of seeding activities, rather than less. Campbell asked about the timing of project implementation. Jennings said that it would be difficult to get ready to go by August 1, but that it might be possible. He suggested waiting for the 2024 season, which would enable everything to be ready to go on July 1, 2024.

Bill Collings asked about cloud seeding's relationship to hail. Jonathan Jennings said that the cloud seeding process strives to create many smaller ice crystals, rather than fewer larger ones. He said that as such, cloud seeding suppresses hail formation rather than exacerbate it. Melissa Campbell moved to accept the final draft report on the Summer Cloud Seeding Study. Fred Schneider seconded the motion, which carried 9-0. Melissa Campbell moved to continue working with Advanced Weather Modification Solutions to develop a weather modification program for 2024. Bob Marsh seconded the motion, which carried 9-0.

N-DRIP:

Uri Segev, Vice-President of Business Development for N-Drip reminded the Board that N-Drip technology was a gravity-powered micro-irrigation system, which does not require the higher capital or energy costs of a pressurized irrigation system. As such, he said that there was no need for pumps or filters within N-Drip systems. He added that fields that are currently flood irrigated would not require significant infrastructure changes in order to utilize an N-Drip system. Segev said that growers could utilize N-Drip as part of a dual irrigation technology, where flood irrigation could also be employed. He said that N-Drip is a full-scale irrigation company that manufactures, designs, installs and services their product.

Segev said that agricultural water supplies are often among the first cut in a water shortage. He said that the current environment provides for an opportunity to try N-Drip irrigation on a pilot basis, as there has been state funding allocated in order to do so. He told the Board that N-Drip now has an 18-month history in working with alfalfa. He said that they began with 100 acres of alfalfa and should have 3,500 – 4,000 acres under irrigation by the end of the year, much of it in the Yuma area. He said that because of N-Drip's low-pressure technology, the N-Drip irrigation infrastructure was installed in fields at shallow depths. He said that this created challenges when harvesting the crop, and the tractor operator need to take care in order to keep the system intact. He said that most issues were worked out, noting that the turn row for the harvesting equipment still created challenges.

Segev said that the additional work with alfalfa during the last year had provided the company with more confidence that their product would work with an alfalfa crop. He noted that drip irrigation could result in a 30-45% water savings on an alfalfa crop, and that studies had shown drip irrigation to benefit soil and crop health. He told members that the initial allocation of state money for piloting drip irrigation had been expended. He said that the second batch of money, about \$13.5 million, should be available in August.

Melissa Campbell asked if any pilot program had been implemented on Pinal fields. Segev said that they currently had one. Campbell acknowledged that state funding currently mitigated the costs of N-Drip but asked what the costs were. Segev said that the costs varied a little based on the setup but were \$1,500 - \$1,600 / acre for alfalfa and slightly less for cotton, mostly due to different spacing. Segev said that the cost included all components, installation and a decision-support system installed in the field. He said that the decision-support system includes soil sensors that facilitate a field report that can be accessed from a smart phone.

Bill Collings asked if N-Drip had been used on corn or winter grains. Segev said that utilization of N-Drip on corn had produced great results, citing a 40% increase in yield. He added that they had done a two-year project on sorghum that had also produced good results. Stephen Miller said that there was quite a bit of drip irrigation used in the Pinal area. He added that concerns about the variances in water quality and soil conditions were often mentioned by growers as challenges that they faced in producing crops. Miller asked if N-Drip analyzed soil and water quality conditions as part of their work. Segev said that each field design was treated uniquely and that modelling was done for each field. Collings said that the water in the

eastern part of the region contained a lot of sediment, and asked if N-Drip could accommodate these water supplies without a filter. Segev said he was unsure. He added that he hoped to hold a local field day in about three weeks.

RESPONSES TO ADWR COMMENTS:

Nathan Miller of MATRIX New World Engineering said that they were on the midst of optimization work on the Pinal AMA groundwater model. He said that they were seeing some encouraging results from those efforts, and suggested that it be discussed in more depth at a future Board meeting.

EXECUTIVE DIRECTOR REPORT:

Joe Singleton told members that the Needs subcommittee for the Bartlett Dam modification had met on June 20, 2023. He said that the group had discussed allocation criteria how those would be developed in relation to the guiding principles that the group had previously approved. He said that the group would meet again next week to continue that work.

Singleton said that the Governor's Water Policy Council subgroups had met at the end of last month. He said that the Assured Water Supply (AWS) group had met on June 27, 2023, and discussed background of the AWS program, and the results of the latest groundwater models for the Phoenix and Pinal AMAs. Singleton told members that the group was tasked with protecting the strength of the AWS program, enabling future growth without reliance on mined groundwater, having water before the growth, and that the Department would not consider shortening the AWS window from 100 years or allow for greater depths in the aquifer to be used than those currently allowed. Singleton told the Board that ADWR had forwarded several proposals to begin the group's work including build-to-rent developments, AWS determinations using commingled delivery systems, and incorporating future infrastructure into the Certificate of Assured Water Supply process. Singleton said that subgroup members were invited to comment on these proposals and to submit their own. He said that those comments were posted to the Department's website last night and would be discussed at the group's next meeting later in the week. Singleton told members that the tentative meeting schedule called for the larger group and subgroup to meet about monthly. Singleton said that the second subgroup, formed to examine rural water issues, met on June 27, 2023. He said that the Rural issues group had held a kickoff meeting like the AWS group, and discussed some background information and process guidelines. Singleton added that ADWR had put together a bullet point list of things that might be done to help address rural water issues that they called a starting point.

Singleton told members that the Arizona Water Banking Authority (AWBA) had met on June 28, 2023. He said that in addition to the Bank's normal activities that they have having discussions on the distribution of long-term storage credits for the firming of municipal and

industrial priority CAP supplies. Singleton said that AWBA staff had formulated some alternatives on how to do this. Singleton said that Tom Buschatzke, in his role as AWBA chair, had recommended not trying to finalize an AWBA policy on this, as the regulatory environment for Colorado River allocations to the states and Mexico is going to be different after 2026.

Stephen Miller said that he hoped that the Governor's Water Policy Council would focus on Pinal issues, as some of the had been ongoing for some time. Singleton said that he shared Miller's concerns, adding that he felt that the sentiment from ADWR was that the result of this process would address, at least in part, some Pinal concerns as the group was focusing on AWS issues. Singleton told members that he had received feedback from the public that they were unsure how or if they could have input into the process.

Nathan Miller said that ADWR's most recent policy for redistribution of well pumping was affecting Pinal first, and did not align with previous hydrology submittals for AWS. Miller said that while this might be necessary, the process seemed to be a work in progress.

LOBBYIST REPORT:

Cheyenne Walsh of Compass Strategies said that state legislature was still in session. She said that they were adjourned until July 31, 2023, and it appeared that they would adjourn sine die at that time. Walsh said that the Governor had issued Executive Orders related to abortion and gender-affirming care since the legislature adjourned. She said that these caused a stir among the Republican caucus, who cancelled scheduled meetings to approve the Governors director nominations. Walsh told members that the ongoing legislative session caused two issues: 1) the effective date of legislation passed during the session is 90 days after sine die; and 2) legislators can not raise funds from registered lobbyists and any registered principal during the legislative session. Walsh added that there was a Water Security Ad Hoc committee hearing scheduled this week at which Rob Anderson would brief members on the Phoenix AMA groundwater model.

PINAL STAKEHOLDER PROCESS REPORT:

Stephen Miller said that the groundwater modelling work was proceeding and should result in a product soon.

CHAIR'S REPORT:

There was no report from the Chair.

CALL TO THE AUTHORITY:

There was a call to the Authority. There was no response.

CALL TO THE PUBLIC:

There was a call to the public. There was no response.

NEXT MEETING DATE:

The next meeting will be held on August 8, 2023 at 7:00 a.m.

ADJOURN

The meeting was adjourned at 8:46 a.m.

ATTEST:


William Collings, Chairman


Stephen Q. Miller, Secretary-Treasurer