INDIAN WELLS VALLEY
GROUNDWATER AUTHORITY
TECHNICAL ADVISORY COMMITTEE
MINUTES

Indian Wells Valley Water District
500 W Ridgecrest Blvd, Ridgecrest, CA 93555
Thursday, February 1, 2018, 1:00 p.m.

1. CALL TO ORDER

The meeting was called to order by TAC Chair Bingham at 1:08 p.m.

Roll Call TAC:

6 Present – Earl Wilson, Eastern Kern County Resource Conservation District
Don Decker, Domestic Well Owners
Scott O'Neil, Business and Business Development
Eddy Teasdale, Large Agriculture Meadowbrooke
Adam Bingham, Wholesaler and Industrial User
Wade Major, Large Agriculture Mojave Pistachios
1 Absent - Michael Powell, Rand Community Water District

Non-Voting Members

3 Present – Stephan Bork, Navy
Tim Parker, Indian Wells Valley Water District (IWVWD)
Michelle Anderson, Kern County Water Agency (KCWA)

Stetson Engineers Inc. (Stetson) representatives present – The Water Resources Manager (WRM) Steve Johnson, Jean Moran, and Steve Reich
Stetson representatives participated by phone –Jeff Helsley

21 members of the public present

2. PUBLIC COMMENTS

Stan Rajtora was concerned that the Indian Wells Valley (IWV) basin model was not an item on the agenda. Mr. Rajtora feels that the basin model is something that the TAC can have an impact on and for that reason it should be a standing item on the agenda.

3. APPROVAL OF PREVIOUS MEETING MINUTES

a. January 4th TAC meeting

Corrections were made to the attendees list on page 1 of the minutes.

Motion by Mr. Decker and second by Mr. Wilson to accept the minutes with corrections
Passed – 6 Ayes
Decker, Teasdale, Major, Wilson, Bingham, O'Neil
No – None, Absent – Powell

4. ADMINISTRATIVE ISSUES

a. TAC – Ethics Training and form 700 due in March of this year

Chair Bingham reminded TAC members to complete ethics training and form 700s. Chair Bingham requested that TAC members update him on what they have completed.

No further comments.

5. TAC DISCUSSION OF GSP PRIORITY PROJECTS/TASKS

a. Water Budget Elements/Initial Groundwater Levels

Ms. Moran gave a PowerPoint presentation (see attached document) on the water budget elements and requested that the TAC provide input and comments on baseline model assumptions and other data that could be added to the rain gauge and recharge data by February 22nd. During the presentation, West Katzenstein of the public asked about the chart showing annual precipitation over a water year cycle (October 1st to September 30th) with a date range from 1947 to 2017, mean precipitation, and a departure from mean curve. Specifically, Mr. Katzenstein was concerned about where the baseline start date is chosen because depending on where the baseline begins the chart would show a completely different trend than the one presented. The WRM pointed out during this presentation that the trends are key and reminded everyone that the model work schedule is between the Navy and DRI (Desert Research Institute).

Committee Comments

Mr. Parker would like to see Stetson address uncertainties in the data. The WRM explained that comments like Mr. Parker's are the kind that Stetson would like to receive via email on this topic.

Mr. O'Neil asked how Stetson can be sure of the quality of the data and explained that the map that showed groundwater elevations in the presentation did not show where the monitor wells are located. Ms. Anderson of KCWA responded that there are approximately 200 monitor wells and she uses data from those wells to make these maps. Ms. Anderson described the system that she adheres to when quality checking the data to ensure that the maps are as accurate as possible. The WRM and Ms. Moran mentioned that work on data gaps is forthcoming and questions and concerns on the subject will be addressed when that work is presented. Ms. Anderson said that she will provide the maps with wells. Mr. O'Neil stressed the need for a quality monitoring system. Mr. Reich assured that Stetson will work with KCWA, CASGEM, and DWR to come up with a basis for monitoring that is consistent.

Mr. Wilson asked how frequently the water level elevation data was collected. Ms. Anderson said that measurements are taken twice a year: once in March and once in October and she explained that the March data is what is used to make the maps. Ms. Moran added that using the March data agrees with GSP regulations because DWR wants to see the wet season water level. Chair Bingham explained that the CASGEM data is the same.

Mr. Bork asked what year The Department of Water Resources (DWR) suggests the baseline for recharge data should begin at. Mr. Parker responded that in general people wrongly assume that it is 2015 because that is when SGMA came into being. Mr. Parker clarified that SGMA legislation allows the basin to determine what baseline is best for their particular situation. Mr. Parker suggested getting some input from DWR on this question and Mr. Teasdale agreed.

Mr. Teasdale asked if there were plans to present the results of model updates. Ms. Moran responded that yes the results of model updates will be presented but reminded everyone that the time schedule on that is up in the air as it is in the hands of the Navy and DRI.

Mr. Decker feels that water entering the playa from a DRI study is overestimated and when that water is subtracted from the water entering the basin aquifer then recharge is much lower. Mr. Decker also feels that attention needs to be paid to age dated water. Ms. Moran ensured Mr. Decker that Stetson will be working with DRI to come to a consensus on the historical calibration. Chair Bingham responded that the results of the recharge studies presented were based on the best available data at the time. Mr. Parker explained that models will never be completely correct. Mr. Parker also stated that Stetson will focus on determining sustainable yield. Mr. Decker agreed with Chair Bingham and Mr. Parker regarding data quality and sound science, but feels that basin discharge is historically high and proceeded to reference a study by Tetratech regarding beneficial use as the basis of his comments.

<u>Public Comments</u>
Chuck Griffin emphasized that good data is important and would like to see the TAC take initiative on recharge rates from springs and stream gauge data. Mr. Griffin feels that IWV does not have all the data that is available and would like to see real numbers and static water levels. Mr. Griffin feels that recharge from a fault in the south end of the basin is not being considered. In addition, Mr. Griffin would like the TAC to show people in IWV what is going on and wants to know what the sustainable yield for IWV is.

Derek Hoffman would like to see a discussion by the TAC on this topic at the next meeting so that the TAC can come to a consensus to bring recommendations forward to the meeting in April. The WRM assured that the goal is to get TAC the material before the meeting so that discussion followed by consensus can be achieved.

Mike Neel asked if historical maps were available and Ms. Anderson assured that they are through KCWA website.

Larry Mead asked, "how does a layman know where the data gaps are?" Ms. Moran and Mr. Parker responded but Mr. Meed felt that neither answered his question. Mr. Reich stepped in responding that Stetson will be working with KCWA on what is acceptable in regards to monitoring protocol and coming up with a robust protocol will hopefully eliminate the need for a layman to question the fundamental aspects about the data such as how it was collected, and whether or not there is enough data to represent the basin.

The WRM closed this topic with an overview of what was discussed.

b. DMS (Data Management System) – Database Development Status and Discussion

Mr. Reich gave an overview of the DMS comparison matrix (see attached document) that the TAC requested in the January meeting. Mr. Reich emphasized that it is important to update and maintain a DMS.

Committee Comments

Mr. Teasdale thanked Stetson for putting the matrix together and asked if Stetson was moving forward with their DMS. The WRM explained that Stetson will continue working on the DMS because the budget has already been set by the Groundwater Authority (GA) to do so.

Mr. O'Neil asked if this matrix was the final product. The WRM responded that for the purpose of comparing DMS systems it is the final product. Mr. O'Neil asked if the areas in the chart marked with an "NA" will be filled. Mr. Reich responded that they would as more information comes to light. Mr. O'Neil asked if the TAC is supposed to make a recommendation on which DMS to go forward with. The WRM clarified that the GA is not looking for a recommendation from the TAC but has requested a recommendation from the WRM.

Mr. Wilson asked if Stetson wanted comments from the TAC on this document. Mr. Reich responded that comments would be appreciated and that this matrix document can be treated as a living document.

Mr. Decker asked who would own and manage the DMS. Mr. Parker also expressed concern about this. The WRM responded that the GA would own and maintain it. Mr. Decker thanked Stetson for putting together the matrix and for all of their work.

Public Comments

Mayor Peggy Breeden requested that all handouts be made available to the public at the meeting. Some discussion between Stetson and TAC members was had about putting documents on the Kern County Website.

Pat Ferris asked for clarification regarding Mr. Decker's question about ownership of the DMS. The WRM explained that the client owns the product once it is finished. Mr. Wilson of the TAC asked the WRM to expand on what ownership means and explain the level of access the public would have. Chair Bingham asked that this question be deferred until agenda item number 6.

Don Zdeba handed out a consolidated list of questions about the DMS that were discussed at the last GAP meeting.

Mr. Katzenstein brought up the criteria used to evaluate DMS systems and hopes that one of those criteria is what works best for Stetson to succeed at the job they have been given to do. In other words, what suits Stetson's needs best to help this valley?

c. POAM/TAC PAS

Mr. Helsley via phone went over the POAM (see attached document) and explained that it is being revised to refine responsibilities, add interactions on the agenda, etc. Mr. Helsley emphasized that this document is still a draft, but wanted to summarize what has been done.

Committee Comments
Mr. O'Neil asked if the TAC had the most current version and Mr. Helsley stated that they did.

The WRM explained he was given a pep talk by the GA about the POAM and how Stetson should be using it and being assertive about staying on track. The WRM asked for comments on this as well from the TAC.

Public Comments
None.

6. CURRENT TAC DISCUSSION AND REVIEW ITEMS

a. GeoGIS presentation from the Brackish Resource Group and Ramboll

Don Zdeba gave a brief overview of the Stanford Project involving SkyTEM and stated that the project is now focused on building a template for developing hydrogeologic models. Mr. Zdeba explained that this database is already paid for, has the support of the state, and is in line with the POAM on timing. Mr. Zdeba then introduced Max Halkjær Market Manager Water for Ramboll who gave a PowerPoint presentation on the Stanford Project and GeoGIS database management (see attached document).

Committee Comments
Mr. Parker mentioned that the ownership of this database would belong to the GA and mentioned that this will be a repository of all the data. Mr. Parker brought up a potential security issue with the GeoGIS database because it is stored in the cloud. Mr. Parker feels that the security issue would be a good topic for discussion in terms of the database matrix presented earlier. Mr. Reich began discussing desktop versus cloud storage for the database Stetson is building as well as web access.

Mr. Decker expressed concern about groups from outside the basin building databases for IWV because they lack knowledge and experience within the IWV basin. Mr. Parker continued this discussion by suggesting that knowledgeable people should be brought together with the groups constructing the database in order to vet the data and bring the local knowledge and the data together in one place. Mr. Decker expressed concern about the database discussion dragging on and not getting to the GSP work.

Public Comments
Mr. Zdeba at the conclusion of the presentation went over some of the concerns about using this GeoGIS database from the last GA meeting and they were: ownership and consistency with being available in time with the POAM. Mr. Zdeba echoed Mr. Parker's comments about it being owned by the GA and maintained by the technical people at the IWVWD. As far as the schedule, Ramboll is committed to completing this by a Spring deadline, which is in line with the POAM. Mr. Zdeba emphasized that there is no cost to the GA for this and that this system is something the state is looking at using for the future standard of data management. Mr. Zdeba does not see any negatives/downsides this system, but conceded that the decision to use it falls to the TAC and the WRM.

Ron Kicinski listed off all of the key attributes of the GeoGIS database made by Ramboll that make use of this database appealing in his opinion. Those attributes are that the GeoGIS database: meets SGMA requirements, meets POAM, is fully paid for, will be owned by GA, and could become the state standard.

Mr. Hoffman wanted to know what the TAC is being asked to do in regards to this particular agenda item and wanted to know what the TAC thinks about this GeoGIS database. Mr. Parker and Ms. Anderson like the GeoGIS database by Ramboll. Mr. Wilson liked the fact that the GeoGIS database by Ramboll comes at no cost to the GA and that automation is the way of the future. Mr. O'Neil felt that if the State was going to move to this system then IWV should also, but expressed concerns about database control. Mr. Major also approves of the GeoGIS database by Ramboll for the reasons that Mr. Kicinski stated earlier. Ms. Anderson asked if the WRM would take a recommendation from the TAC and the WRM responded that he would and reminded everyone that the final recommendation regarding databases to be made to the GA will come from the WRM.

Anthony Brown asked which database IWV would use for the GSP, this GeoGIS one made by Ramboll or the one Stetson is currently working on. Mr. Parker explained that the key issue of concern is security and who can access the data. Mr. Halkjær suggested the Stanford Project group and Stetson work together. Mr. Hoffman stated that if the TAC had consensus on which database to use a motion could be made to recommend one database over the other to the GA.

Mr. Teasdale made a motion to recommend the GeoGIS database by Ramboll to the GA. Mr. Decker voiced concerns stating that this GeoGIS database is premature and that the TAC has seen nothing of the GeoGIS database as it applies to IWV. Mr. Decker also expressed concern about Mr. Teasdale's motion being too strong at this point in time. Mr. O'Neil feels there needs to be stipulations regarding security. Mr. Decker then proceeded to make a new motion, but was interrupted by the secretary since the existing motion had not yet been voted on or rescinded. Mr. Teasdale was given the opportunity to modify his original motion to include Mr. Decker and Mr. O'Neil's stipulations, but chose not to do so. Mr. Bork addressed Mr. O'Neil's concerns saying that if the TAC is recommending that this system be adopted then some caveats should be put on it, specifically in regards to security and access. Mr. Bork also addressed Mr. Decker's point saying that the TAC does not know this GeoGIS database system any more than they do Stetson's system.

Lyle Fisher asked who owns the code for the database. Mr. Bork explained that the code does not matter, and that owning the data is what matters. Mr. Parker also added that the GA would own the application and the software the developer would still own their code and software.

Pat Ferris expressed concerns about the public being confused. Ms. Ferris also worries about limiting options and limiting knowledge stating that, "we can't fear knowledge." Ms. Ferris encouraged everyone to be open minded.

Mr. Kicinski recommended Ramboll work in conjunction with Stetson on the database.

Judie Decker asked who owns Ramboll. Mr. Halkjær explained that it is not owned that it is a foundation.

The WRM pointed out that Mr. Teasdale's motion was inappropriate as it conflicted with the bylaws. Ms. Breeden agreed and stated that if Stetson does not continue working on the database it would change the scope of work in the Prop. 1 funding and the GA could lose out on grant funding. Ms. Breeden also explained that the TAC and the WRM are supposed to work together. Mr. Teasdale's motion was rescinded, and Mr. O'Neil attempted to restructure the motion to ask the GA to task Stetson with comparing the two databases and take into account security concerns. Chair Bingham reminded the TAC that the TAC can make a recommendation directly to Stetson without taking it to the GA. Mr. Decker feel that Stetson should be given TAC support the task they have been funded for and is unsure at this time how Ramboll's GeoGIS database fits in and to accept the GeoGIS database at this time makes no sense. Mr. Decker closed by seconding Mr. O'Neil's motion. Mr. Katzenstein remarked that this discussion regarding databases comes off like a sales pitch. Mr. Katzenstein would like to see clear direction to Stetson on how to proceed. Upon hearing comments made by Mr. Katzenstein the motion made by Mr. O'Neil was rescinded.

7. FUTURE AGENDA ITEMS SCHEDULE

This time is reserved to inform the Committee of any items that are anticipated to be on the next agenda. No action may be taken unless authorized by law and public comments are limited to three minutes per person.

- a. **PAS Items**
  - i) **March**
    - i. **Water Budget Elements**
    - ii. **Imported Water Opportunities**
  - ii) **April**
    - i. **Water Budget Elements**
    - ii. **Baseline Assumptions**
    - iii. **Data Gaps and Prioritization**
    - iv. **USGS Recharge Study**
    - v. **SkyTEM Survey**

Committee Comments

Mr. Decker asked if there would be a presentation on the SkyTEM results. Mr. Parker stated that a presentation could be arranged and results will be discussed with Stetson.

Mr. Wilson would like to see the recycled water feasibility study added to the schedule.

Public Comments

Mr. Brown suggested having a presentation on The White Paper that was introduced at the GA board meeting.

8. FUTURE TAC MEETING DATES

- a. **Next meeting date: March 1st, 2018, 1pm**
- b. **April 5st, 2018, 1pm**
- c. **May 3rd, 2018, 1pm**

d. **June 7th, 2018, 1pm**
e. **July 5th, 2018, 1pm**
f. **August 2nd, 2018, 1pm**

Chair Bingham pointed out that the July date may change due to the 4th of July holiday.

No further comments.

9. COMMITTEE MEMBER ANNOUNCEMENTS OR COMMENTS

Mr. Wilson clarified a statement that data must be validated before it goes out.

Mr. Parker announced the upcoming Groundwater Symposium and GSA Summit in Sacramento.

10. ADJOURN

With no further comments or discussion to come before the Committee, motion was made by Don Decker and seconded by Scott O'Neil to adjourn the meeting at 4:22 p.m.

Respectfully submitted,

Jade Brush

Jade Brush
Recording Secretary
Searles Valley Minerals