2022 Indio Subbasin Alternative Plan Update

Public Workshop #6
SUMMARY

August 26, 2021 at 2:00 pm – 4:00 pm
Virtual Meeting

Members of the Public • Alena Callimanis, City of Indian Wells • Amy McNeill, Riverside County Flood Control and Water Conservation District • Ben Olson, Olsen Engineering • Chuck Jachens, Bureau of Indian Affairs • David Newell, City of Palm Springs • Lorena Pena, XXXXX • Kevin Fitzgerald, Southern California Golf Association • Kimberly Romich, California Department of Fish & Wildlife • Margaret Park, Agua Caliente Band of Cahuilla Indians • Nina Waszak, Agua Caliente Band of Cahuilla Indians • Omar Gastelum, Leadership Council • Nataly Escobedo Garcia, Leadership Council • Ron Buchwald, Valley Sanitary District • Stephen Reich, Stetson Engineers • Steve Ledbetter, TKM Engineering on behalf of Mission Springs Water District • Tarren Torres, Egoscue Law Group representing Agua Caliente Band of Cahuilla Indians	**Groundwater Sustainability Agencies (GSAs)** • Ashley Metzger, DWA • Castulo Estrada, CWA • Jim Barret, CVWD • Katie Evans, CVWD • Mark Krause, DWA • Melanie Garcia, CVWD • Reymundo Trejo, IWA • Steve Bigley, CVWD • Zoe Rodriguez del Rey, CVWD **Consultant Team** • Iris Priestaf, Todd Groundwater • Daniel Crag, Todd Groundwater • Maureen Reilly, Todd Groundwater • Arthella Vallarta, Woodard & Curran • Rosalyn Prickett, Woodard & Curran

Welcome and Introductions

Ms. Rosalyn Prickett, Woodard & Curran, welcomed everyone to the meeting, and introductions were made as participants joined the call. Ms. Prickett briefed everyone on how to use the virtual GoToMeeting platform and notified attendees that the conference would be recorded. She then presented the meeting objectives and agenda. Ms. Prickett reviewed the meeting objectives and an overview of the Workgroup timeline over the two-year planning period.

Alternative Plan Status

Ms. Iris Priestaf, Todd Groundwater, presented an overview of the tasks and list of chapters for the Alternative Plan Update. Ms. Priestaff reviewed the *2010 CVWMP* goal that will be retained in the Plan Update, along with the new Sustainability goal: "to maintain a locally managed, economically viable,

sustainable groundwater resource for existing and future beneficial uses in the Indio Subbasin by managing groundwater to avoid the occurrence of undesirable results". She then reviewed the refined Plan objectives being included in and guiding development of the Update, including a new 7th objective: "Reduce vulnerability to climate change and drought impacts".

There were no public comments.

Groundwater Model

Mr. Daniel Craig, Todd Groundwater, presented an overview of the numerical model construction and model features. The model simulation period was extended through 2019 with updated recharge and pumping data, along with updated subsurface inflow boundary conditions. A calibration assessment was completed, which demonstrates that the model simulations are well matched with the measured levels. The model also compared simulated drain flows with measures flows, which were also well matched. Historical model accurately simulates shallow and deep groundwater levels and can be used to predict future water level and storage changes under different scenarios. The model also provides forecasts of future drain flows, Salton Sea interactions, and other water budget conditions.

Public comments and questions included the following:

- Pre-deliveries of State Water Project water supplies has influence on historic groundwater declines during the last 5 to 10 years. Have you accounted for these pre-deliveries in the model? Without those pre-deliveries, would the ground water continue to decline?
    - In developing the model, we recognized there is a positive delivery account balance right now. We accounted for that, and moving forward, that advanced delivery account balance would be credited down to 0. When we modeled the State Water Project deliveries, we made sure to account for variability in deliveries over time.
- It is very concerning the first chart shows the model very far off for January 2020. Why?
    - Overall, the measured and simulated groundwater elevations are well-matched, but there is some divergence at the end and that has to do with the high recharge at the GRF. There are a lot of reasons why models do not match perfectly, but overall, it does match adequately.
- Is Thomas E Levy mostly Colorado River recharge?
    - Yes, replenishment water comes from Coachella Canal.

Plan Scenarios & Projects and Management Actions

Ms. Prickett presented the Five Plan scenarios and described how the model inputs were developed assuming implementation of differing suites of projects and management actions (PMAs). The GSAs established priorities in selection of PMAs, which are broken down into four categories:

1. Water Conservation
2. Water Supply Development
3. Source Substitution and Replenishment
4. Water Quality Protection

The complete list of PMAs will be available in the Alternative Plan Update.

Ms. Prickett also explained the groundwater model's climate change assumptions. The model assumes a 50-year period, and future scenarios incorporate recent (drier) patterns. For local inflow, the Baseline scenario uses a long-term hydrology and previously estimated annual recharge volumes. The climate change scenarios use repeated historical conditions only for the period 1995-2019 that

include multiple droughts. Additionally, the availability of imported water for direct delivery and groundwater replenishment was reduced.

The five modeled scenarios include the following:

- *Baseline and Baseline with Climate Change* - The projects listed in these two scenarios are existing operational activities that are assumed to continue forward.
- *Five-Year Plan with Climate Change* - These are the projects the GSAs are planning to implement in their five-year Capital Improvement Plans (CIPs). Under this scenario, there are more Source Substitution and Replenishment projects compared to the Baseline and Baseline with Climate Change scenarios.
- *Future Projects with Climate Change* – This scenario includes a variety of additional supply acquisition, source substitution, and replenishment projects.
- *Expanded Agriculture with Climate Change* - This scenario assumes the same suite of future projects as Future Projects with Climate Change, along with a significant amount of new additional agriculture in the East Valley.

Public comments and questions included the following:

- The Intergovernmental Panel on Climate Change (IPCC) released a new report with worsening effect of climate change, resulting in longer droughts, shorter cold seasons, and more intense heat waves. I am concerned that Colorado River supply assumptions are too high. California will be affected, and agreements will be affected. Simulations should model Colorado River with lower deliveries, showing less water than senior water rights.
    - Yes, model assumes that CVWD will contribute to the *Lower Basin Drought Contingency Plan* (DCP). The *Lower Basin DCP* is based on tiers, and as levels in Lake Mead drop, different tiers will be implemented. We have modeled the full CVWD contribution to the *Lower Basin DCP* annually.
- The sustainability goal stated a beneficial use of water. A 62-million-gallong beach resort in Rancho Mirage and two 20-million-gallon surf parks in Thermal and La Quinta do not seem to be beneficial uses of water.

Simulation Results

Mr. Craig presented the simulation results from the five Plan scenarios that Ms. Prickett described. The results in these scenarios are not realistic because additional projects are already planned by the GSAs. However, the scenarios provide a comparison of future conditions with and without climate change/drought.

Baseline and Baseline with Climate Change

Total inflows for Baseline are higher than in Baseline with Climate Change, especially in peak recharge years. Note that the first 25 years assume addition of new supplies and demand, but the second 25 years do not assume new demands. Cumulative change in storage is much higher in Baseline. Baseline with Climate Change hovers right around zero and even ends negative. The groundwater model simulated forecasted supply and demand for 2020-2044 as required by SGMA, but kept assumptions at the year 2045 levels for 2045-2069. This operates as a stress test for ongoing management of the basin at 2045 levels but does not recognize that demands will continue increasing after 2045.

Future groundwater levels in Baseline with Climate Change in West Valley are about 30-40 feet lower than baseline conditions due to reduced replenishment supplies. In East Valley, the impacts of climate

change are less (only 5 feet difference) because most of natural infiltration occurs in the West Valley. In Baseline, there are larger changes in groundwater levels in the East Valley, while in Baseline with Climate Change, declines are more substantial in the far West Valley near WWR-GRF.

Four Climate Change Scenarios

The groundwater model simulated additional scenarios with five-year CIP projects, future projects, and expanded agriculture. Water budgets show net positive inflows in all three of the project scenarios. Mr. Craig presented simulated pumping, inflows, groundwater levels, and cumulative storage for the four climate change scenarios. In Mid-Valley and East Valley areas, Baseline with Climate Change groundwater levels are declining, but they are increasing for the other three scenarios. All three scenarios show significant declines in far West Valley due to reductions in WWR-GRF replenishment under various future project implementation. Cumulative change in storage for Baseline with Climate Change is net negative after 50 years, while other three climate change scenarios show net positive.

Mr. Craig stated that the scenarios indicate that Five-Year PMAs are needed for supply-demand balance and that future PMAs are needed for reliability in face of climate change and uncertainties in demand past the 25-year planning horizon. He also concluded that for all scenarios (except Baseline with Climate Change) the Subbasin will be sustainable.

Public comments and questions included the following:

- The assumptions for supply and demand in the West and Central Valley need to be explained well in the report. For Baseline and Baseline with Climate change, what are the past and future replenishment and demand assumptions and why are West Valley groundwater levels projected to increase?
    - There is a Numeric Model and Plan Scenarios chapter in the Alternative Plan Update, which will explain these scenarios with more detail.
- What does ET cover?
    - ET is calculated in areas in the model where groundwater is shallow and rises to rooting depth of plants. Most of ET occurs in East Valley where groundwater is shallow.
    - We also calculate ET losses at recharge sites and ET is considered in the return flow methodology.
- The Whitewater River replenishment looks too high.
    - The Alternative Plan Update includes a section that explains our assumptions regarding the Whitewater River replenishment. We feel confident that those numbers are appropriate, and we look forward to your review.

Public Comment

Ms. Prickett invited workshop participants to ask questions and provide comments:

- Are the presentation slides going to be available?
    - The slides are already available on our website (www.IndioSubbasinSGMA.org). All of the meeting materials from workshops are uploaded onto the website.
- How will the Five-Year projects be funded?
    - These projects are within the GSAs Five-Year CIPs. In some cases, agencies have sought grant funding for implementation of those projects. In some cases, they are

funded using the fund from water rates. It depends on the agencies and the specific projects. It is a combination of different funding mechanisms.

Next Steps

Ms. Prickett directed participants to our homepage (www.IndioSubbasinSGMA.org) and encourage people to sign up for email updates. She announced to workshop participants that the next Public Workgroup will be held on October 13 from 2:00 PM to 4:00 PM.

Ms. Pricket presented the next steps for completion and submittal of the Alternative Plan Update to DWR. The Draft Plan will be circulated for review for 30 days in late September. Following receipt of comments, a Final Plan will be released for adoption by the GSA governing bodies in early December.

Public comments and questions include the following:

- If we received the email announcement about today's workshop, will we receive an email about the Draft Alternative Plan Update?
    - Yes, we will send an email to notify our stakeholders that the Draft Alternative Plan Update is available.
- How many weeks after the October 13 workshop will public comment continue?
    - The Public Review Period will be open for 30 days. The October 13 workshop is right in the middle of review period. You will have two weeks before the public workshop to review the draft, and you will have two weeks after the workshop to review the draft.