2022 Indio Subbasin Alternative Plan Update

Tribal Workgroup #5
SUMMARY

June 24, 2021 at 10:00 am – 12:00 pm
Virtual Meeting

Tribal Workgroup and Supporting Members	Groundwater Sustainability Agencies (GSAs)
• Chuck Jachens, Bureau of Indian Affairs • David Limon Saldivar, Augustine Band of Cahuilla Indians • Diana Ugarte Navarro, Torres Martinez • Jennifer Ruiz, Cabazon Band of Mission Indians • Jose Mora, Twenty-Nine Palms • Nina Waszak, Augustine Band • Otoniel Quiroz, Torres Martinez • Dr. Patrick Taber, Bureau of Indian Affairs • Shawn Muir, 29 Palms Band of Mission Indians	• Ashley Metzger, DWA • Castulo Estrada, CWA • Katie Evans, CVWD • Mark Krause, DWA • Ryan Molhoek, DWA • Trish Rhay, IWA • Zoe Rodriguez del Rey, CVWD
	Consultant Team • Iris Priestaf, Todd Groundwater • Nicole Poletto, Woodard & Curran • Rosalyn Prickett, Woodard & Curran • Vanessa De Anda, Woodard & Curran • William Medlin, 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. This included the quarterly meeting schedule for both Public Workshops and Tribal Workgroup meetings.

Alternative Plan Status

Ms. Prickett presented an overview of the Alternative Plan Update tasks. Outreach is a key task throughout the Alternative Plan Update process. There are 12 chapters in the Plan and Ms. Priestaf walked attendees through the outline of the document, beginning with the information included in the Plan Area chapter. The public review period is anticipated in September or October 2021.

Groundwater Conditions: Water Quality

Ms. Priestaf, Todd Groundwater, presented the groundwater conditions for water quality in the Indio Subbasin. The water quality analysis involved compiling data from various databases and mapping the following eight constituents: salinity (TDS), nitrate, arsenic, hexavalent chromium (Cr-6),

fluoride, perchlorate, uranium, and DBCP. The constituents were mapped from 1990 to 2019 to see geographic patterns, distribution, and trends. The cross-sections for TDS, nitrate, arsenic, Cr-6 show vertical variation, and the time concentration plots for TDS and nitrate show trends over time.

Ms. Priestaf presented a series of maps showing the range of contaminant concentrations overtime throughout the Subbasin.

The highest **TDS** concentrations are located near the Salton Sea and along the eastern edge potentially from seawater intrusion, and along the Subbasin margins potentially from return flows and subsurface inflow. The lower concentrations are found along the deeper center of the Subbasin. Shallow wells are more variable and have higher TDS concentrations because they are more influenced by recharge and other processes. Since 1990, TDS concentrations have increased in the deeper zones in the central and eastern Thermal subarea. Sources of TDS include natural sources, return flows from agricultural and landscape irrigation, imported water recharge, septic and wastewater disposal, subsurface inflow, and historical inflow from the Salton Sea.

Workgroup comments and questions included the following:

- On the TDS cross-sections, how can neighboring wells have good and bad water quality? What accounts for this anomaly?
    - Differences may be due to higher-salinity subsurface inflow. The project team will review the data and circumstances of each well.
- On TDS time-concentration plots, why are some wells with higher concentrations along the margins? Is that also from high TDS subsurface inflow?
    - In some cases, this might also be from higher salinity return flows.

The Maximum Contaminant Level (MCL) for **nitrate** is 45 mg/L, but the majority of the Subbasin is below 10 mg/L. Some particular areas with higher nitrate reflect multiple sources, including natural mesquite sources and loading from historical agriculture, landscaping, septic and wastewater disposal. In general, shallow wells have higher nitrate concentrations and are more variable.

Workgroup comments and questions included the following:

- Can you please provide a reference for the mesquite-nitrate relationship document discussed?
    - The reference will be shared following the Workgroup meeting.

The MCL for **arsenic** is 10 µg/L. Though the majority of the Subbasin is below 5 µg/L, there are areas with concentrations higher than 50 µg/L due to anoxic (low oxygen) conditions in the East Valley near the Salton Sea and geothermal factors. The higher concentrations tend to be found at greater depths.

The MCL for **total chromium** is currently 50 µg /L, and **Cr-6** is just one element of the total chromium standard for drinking water. The SWRCB had previously established an MCL for Cr-6 of 10 µg/L but has since rescinded this regulation. The drinking water standard for Cr-6 of 10 µg/L may be reinstated in the near term. The source of Cr-6 is likely natural, and higher concentrations are found at greater depths. Cr-6 levels are stable in most wells and decrease near groundwater replenishment facilities.

The MCL for **uranium** is 20 pCI/L, and the Subbasin primarily ranges from 5-10 pCI/L. Uranium in the Subbasin is likely from natural geologic sources such as granitic rocks in the northwestern portion of the Subbasin.

The MCL for **fluoride** in drinking water is 2 mg/L. Fluoride in the Subbasin is naturally occurring and is associated with faulting, such as the San Andreas Fault, and geothermal areas along the Salton Sea.

The MCL for **perchlorate** in drinking water is 6 µg/L. Perchlorate is largely undetected throughout the Subbasin, except for a few wells in the upper northwestern part of the Subbasin at levels below the MCL. Sources for perchlorate include industrial sources, fertilizer, and natural sources.

The MCL for DBCP is 0.2 µg/L. There have been DBCP detections in three private irrigation wells in the central **portion** of the Subbasin at levels below 0.1 µg/L. DBCP is associated with pesticides that were banned in 1979.

The GSAs are tracking water quality constituents of concern. The large water systems meet drinking water standards for the eight constituents presented. The domestic wells and small water systems may be affected by nitrate, Cr-6, and arsenic.

Workgroup comments and questions included the following:

- In the past, the use of Colorado River water for groundwater replenishment added perchlorate into the groundwater. Why does this phenomenon not appear on the maps?
    - Though perchlorate had been detected in Colorado River water in the past due to manufacturing facilities in the watershed, the Colorado River water is no longer a source of concern due to clean-up and mitigation efforts.

Groundwater Conditions: Groundwater Dependent Ecosystems (GDEs)

Mr. Will Medlin, Woodard & Curran, presented the groundwater dependent ecosystem (GDE) analysis required by the Sustainable Groundwater Management Act (SGMA). GDEs are ecological communities or species that depend on groundwater emerging from aquifers or groundwater occurring near the surface. The GDEs Assessment considered the U.S. Environmental Protection Agency (USEPA) Level III and IV ecoregions, the Coachella Valley Multiple Species Habitat Conservation Plan (MSHCP) conservation areas, and special status (threatened and endangered) species. The MSHCP covers almost all of the Subbasin in Riverside County. The MSHCP was approved in 2008 and most recently amended in August 2016. The MSHCP is administered by the Coachella Valley Conservation Commission and is intended to conserve sensitive habitats and species through mitigation of impacts and issuance of take permits for species. CVWD, CWA, and IWA are permittees and signatories to the MSHCP.

The GDE assessment was limited to federal and state-listed "threatened and endangered species". There are 17 listed species in Subbasin, of which 6 have direct reliance on groundwater and 7 have indirect reliance.

The preliminary GDE Assessment started in 2020 with a desktop analysis based on the Natural Communities Commonly Associated with Groundwater (NCCAG) datasets. After completing the desktop GDE Assessment, the project team performed field surveys to verify the analysis in January 2021. The following was concluded from the field survey:

- Probable GDE: 1% (1 site)
    - I.e., water or other saturation or wetland vegetation or aquatic or semiaquatic
- Probable Non-GDE: 69% (9 sites)
    - I.e., uplands, developed areas, mis-mapped areas, human-made or otherwise modified features that would typically include water is present like golf courses, ponds, reservoirs, and fields
- Playa Wetlands: 23% (3 sites)
    - I.e., wetland vegetation where water has receded such as along the Salton Sea

Out of the 882 NCAG wetlands identified through the desktop analysis, 1,045 points were analyzed to assess whether GDEs were present. Out of those 1,045, 50 points were probable GDEs, 932 points

were probable non-GDEs, and 63 points were playa wetlands. Probable GDEs exist in the mountain from canyons and may rely partially on surface water or snowmelt. Playa wetlands occur along the Salton Sea exposed seabed near the drain and surface water outlets.

Workgroup comments and questions included the following:

- Was the Whitewater Channel included in this assessment?
    - Yes, it was included, but generally considered a Probable non-GDE. Even though riparian habitat may exist within other areas of the Subbasin or along the channel, human-made structures (like ponds or drains) and other riparian areas that are not groundwater dependent are not considered GDEs under SGMA. They are still mapped and protected by other state and federal entities, but not designated under SGMA.

Sustainable Management

Ms. Priestaf presented an overview of DWR recommendations on Sustainable Management Criteria (SMC), which included setting thresholds for groundwater levels and using those as a proxy for storage and subsidence. Minimum threshold (MT) for groundwater levels is set at the historical low as measured at 57 Key Wells. The historical low was selected because undesirable results (such as production wells drying) were not reported, meaning that the historical low is protective against undesirable results. An undesirable result will occur when the MT is exceeded in 5 consecutive low-season monitoring events in 25 percent of wells across the Subbasin. The GSAs will monitor and report groundwater levels in Annual Reports.

Ms. Priestaf presented DWR recommendations to the GSAs for water quality, seawater intrusion, and GDEs. DWR also recommended GSAs: 1) continue to study the rate and level of increased salt contents in groundwater due to the importation of Colorado River Water, and 2) incorporate the Coachella Valley Salt and Nutrient Management Plan (CV-SNMP) into future iterations of the Alternative Plan. In response, the Alternative Plan includes maps, cross-sections, and time concentration plots, as well as a discussion of significance, sources, and distribution factors of salts and nitrates in the Subbasin. Development of Alternative Plan Update has also been coordinated with the CV-SNMP effort since 2020. The Subbasin has applied for funding from DWR to install additional monitoring wells.

DWR requested the GSAs to clarify if there is an MT associated with subsurface drain flow as referenced in the 2002 and 2010 Coachella Valley Water Management Plans (CVWMP). The 2010 CVWMP recognized the potential degradation of water quality as a result of downward migration of shallow return flows in the East Valley to deep zones. Projects have been able to raise groundwater levels in deep productive levels, which have resulted in upward gradients and flow. High groundwater levels are generally protecting deep zones. Although increasing drain flows are beneficial because they are correlated with groundwater levels, the Alternative Plan Update will not include an MT for drain flows.

Ms. Priestaf presented a map with simulated levels in the shallow aquifer as of 2020. The contour along the Salton Sea is at -220 feet below sea level (BSL), higher than the Salton Sea contour at -238 feet BSL. From 1997-2014, the modeling implies that there was inflow into the Subbasin from the Salton Sea. This has been reversed since 2015 through managed aquifer recharge, source substitution, and conservation. The modeling results match observed groundwater levels.

DWR also recommended that the GSAs identify the GDEs in the Subbasin. The Alternative Plan Update will include an appendix documenting the GDE study.

Workgroup comments and questions included the following:

- When will the draft Alternative Plan Update be made available for Tribes to comment on? Request to please make time for tribal members to review in advance of public review.
    - The draft Alternative Plan Update will be released for Tribes to comment during the public review period in Fall 2021 to allow time to address and incorporate comments, and to adopt the plan.

Groundwater Model Update

Ms. Priestaf presented the groundwater model update. The original historical simulation from 1936 to 1996 was first updated in 2010 and again recently to include the historical period from 2009 to 2017. The groundwater model is now being actively applied to model future scenarios.

Revised Plan Scenarios

Ms. Prickett presented an update on the revised plan scenarios. Three types of future scenarios will be analyzed, including:

- Baseline: additional demands but no new projects
- Near term projects: additional demands and capital improvement projects (CIP)/programs planned within 5 years
- Future projects: additional demands and all planned projects/programs in the CIP

These three scenarios will be modeled with and without climate change.

The baseline scenario assumes a 50-year hydrology mimicking hydrology between 1970 and 2019. Under climate change, the model assumes the recent 25-year hydrology with multiple dry cycles between 1994 and 2019. The recent 25 years have had 20 percent less mountain-front runoff compared to the 50-year year average.

The baseline scenario assumes SWP water reliability of 45 percent, the historical average since the Wanger decision in 2007. Some years, such as 2021, have experienced reliability as low as 5 percent. Future projects scenario includes participation in Delta Conveyance Facility (DCF) that may increase SWP reliability up to 58 percent. The climate change scenario will also assume a 1.5 percent factor as projected by DWR.

Workgroup comments and questions included the following:

- What is the probability of receiving SWP water?
    - The probability that water will be received is only 45 percent. However, 2014 experienced a 10 percent allocation, and 2021 is currently experiencing a 5 percent allocation. There have been two historical dry periods since the 2007 Wanger decision. The 45 percent reliability takes into consideration of recurrence of dry periods. This number is more conservative than the 58 percent reported in the DWR capability report.

The baseline scenario assumes the Quantification Settlement Agreement (QSA) entitlement minus conveyance losses. The future projects scenario includes additional nonpotable water such as Canal water and recycled water deliveries. Because of the current drought conditions in the Colorado River watershed, the climate change scenario assumes the QSA entitlement minutes conveyance losses, accounting for the Lower Basin Drought Contingency Plan (DCP) contribution in phases. CVWD's contribution is 7 percent (approximately 24,000 acre-feet [AF]) of the total for California; this volume will be contributed back to the lakes and storage.

Approximately 30 percent of water demand is assumed to return to sewer. The baseline scenario assumes only the current recycled water supplies will continue with no additional recycled water projects. The near term scenario assumes current supplies as well as projects planned for implementation within the next 5 years, and the long term scenario assumes all planned projects will be implemented. The amount of water available for recycled water is the same across all scenarios with or without climate change.

Next Steps

Ms. Prickett presented the next steps for July through September 2021. The consultant team will finalize Plan Scenarios in groundwater model and quantify water budgets, and results will be presented at the next Tribal workgroup scheduled for August 26, 2021. Ms. Prickett invited participants to offer any additional comments or questions. For any additional information, please contact Rosalyn Prickett at indiosubbasinSGMA@woodardcurran.com.

Workgroup comments and questions included the following:

- Is it possible to send the presentation before the meeting?
    - The slides are typically uploaded to the website (http://www.indiosubbasinsgma.org/) the Monday before the meeting.

Other Planning Efforts

Ms. Zoe Rodriguez del Rey, CVWD provided updates on the SNMP, a separate but concurrent update process with the *Indio Subbasin Alternative Plan Update*. The Monitoring Program Workplan was approved by the Regional Water Quality Control Board (Regional Board) in February 2021, and an SNMP Workplan was submitted to the Regional Board on May 3, 2021, and is tentatively scheduled to be presented to the Board in August 2021. A letter has been sent to the Tribal groups to determine interest in the monitoring program. For any additional information or to attend the meeting, please contact Zoe Rodriguez del Rey at zrodriguezdelrey@cvwd.org.

Ms. Ashley Metzger, DWA provided updates on the regional *2020 Urban Water Management Plan* (UWMP). All six agencies have adopted the UWMP, and the final UWMP will be submitted to DWR by July 1, 2021. Visit the CVRMWG (http://www.cvrwmg.org/uwmp/) if you are interested in receiving more information.