

MINUTES

Lower Santa Cruz River Basin Study Project Team Meeting #2

Wednesday, April 27th, 2016, 10:00 AM

Pima Association of Governments, 1 East Broadway Blvd. #401, Tucson, AZ,

Attendees

Eve Halper (Bureau of Reclamation), Kathy Chavez (Pima County Wastewater), Jeff Tannler (ADWR), Ken Seasholes (CAP), Mike Block (Metro Water), Wally Wilson (Tucson Water), Asia Philbin (Marana Water), Peter Abraham (Oro Valley), Mead Mier and Eric Kramer (PAG), Selso Villegas (Tohono O'odham Nation), John McKinney (FICO), Diana Kelts (FMI), Kathy Jacobs (UA CCASS), Bailey Kennett (UA/WRRC), Brian O'Neill (UA/Pima County), Pam Muse (ADWR, by phone), Warren Greco (CAP, by phone), Jim DuBois (Pima County Wastewater, by phone)

Purpose of Meeting

The purpose of this meeting was to review the methods used to develop water demand projections for ADWR's 4th Management Plan and in CAP's Service Area Model (CAP:SAM). Understanding how these projections were derived, the similarities and differences between them, and the motivations behind the assumptions of the models will be important as sub-teams establish consensus on how to develop their own water demand projections. The projections developed by sub-teams and vetted by the Project Team as a whole will be used to formulate supply and demand scenarios, which will provide input to the groundwater model.

ADWR 4th Management Plan Assumptions, presentation by Jeff Tannler

A series of Management Plans have been developed for all Active Management Areas. This 4th Management Plan has not yet been finalized, but a recent approval from Tucson AMA Groundwater Users Advisory Council (GUAC) moves the 4th Management Plan closer to a final product. The primary management goal of the Tucson Active Management Area (TAMA) is to achieve safe yield by 2025 (no more groundwater is being withdrawn from the basin than is being replaced, on a long term basis). The Tucson AMA has been at or near safe yield for several years.

The 4th Management Plan developed projections for municipal, agricultural, tribal, industrial, and reclaimed water demand. The specific assumptions used to derive these projections can be found in Jeff Tannler's presentation, which will be distributed to the Project Team as a PDF file.

With respect to municipal demand, current GPCD deliveries have significantly decreased from the 2013 projections made in the 4th Management Plan. However, the group agreed that for the projections developed by the Basin Study sub-teams, it is important to be conservative with values, as well as flexible in the range of scenarios that will be developed.

All unused water is assumed to be stored. As the TAMA has been increasing their amount of stored CAP water, ADWR assumed this trend would continue into the future. Any CAP water that is stored but not yet recovered is not counted towards TAMA's safe yield goal. For the purposes of the LSCR Basin Study, the Project Team will want to develop a scenario in which a significant amount of recovery occurs.

For tribal water demand assumptions, it was noted that ADWR struggled to identify interior municipal demand and develop associated projections, and would appreciate any feedback on their 57 GPCD assumption.

For the Lower Santa Cruz River managed recharge projects, there is no water "set aside" for riparian ecosystems, but a constant factor is used to estimate evapotranspiration losses along the River in order to calculate recharge credits. ADWR projections also assumed that remediated water would be held constant. The Project Team could consider a scenario where less water is going into the reclaimed distribution system and instead into constructed storage or other uses.

CAP's Service Area Model (CAP:SAM), presentation by Ken Seasholes

CAP:SAM is a tool for projecting supply and demand in CAP's three county service area. It includes all major water-using entities and water supplies. The model is designed to evaluate multiple scenarios, while accounting for complex legal and physical relationships between the three AMAs. The specific assumptions of CAP:SAM can be found in Ken Seasholes' presentation, which will be distributed to the Project Team as a PDF file.

The assumptions in CAP:SAM are integrated with Colorado River Shortage scenarios from the Colorado River Simulation System (CRSS) model, which have been used to develop projections for the seven CO River Basin states and Mexico.

The CAP:SAM model can be adjusted and explored in real-time, as it is very simple to alter inputs. Though it is important to run a wide variety of scenarios to account for uncertainty, the LSCR Basin Study Project Team will want to select scenarios that are most impactful.

A key difference in water demand assumptions between CAP:SAM and ADWR's 4th Management Plan is that CAP:SAM utilizes "gallons per housing unit per day" (GPHUD) as their unit of growth rather than GPCD, though both agencies draw from the same data sets. If drawing from both studies, the LSCR Basin Study Project Team will need to determine how these variables are related.

Next Meeting

The next meeting is May 20 from 9 a.m. to noon at Pima Association of Governments. It will include the following:

- Background on climate projections and downscaling techniques
- Dr. Castro's recent work on dynamic downscaling for the Colorado River Basin and its implications for our basin
- General discussion on how we want to select climate projections appropriate for our study

Action Items

- Within the month, CAP will provide data projections for each sector to Eve and Kathy, who will then distribute to each sub-team.
- ADWR will provide demand projections for each sector to Eve and Kathy, who will then distribute to each sub-team
- Sub-teams will meet separately to: 1) review CAP and ADWR demand projections; and 2) discuss how they would like to adjust the assumptions or projections for incorporation into the LSCR Basin Study models