

ADWR 4th Management Plan Assumptions

General Assumptions: 4MP Projections

Active Management Areas within the Central Arizona Project Service Area

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MUNICIPAL PROJECTION ASSUMPTIONS

- * Traffic Analysis Zone (TAZ) population projections from Associations of Government (MAG, PAG, CAG)
- * ADOA population projections (other counties)
- * Disaggregated to individual providers (large and small) based on:
 - * Current service area boundaries
 - * CC&N boundaries
 - * Incorporated area boundaries
 - * Municipal Planning Area (MPA) boundaries (Maricopa County)
 - * Adjacent growth
 - * Exempt pop/wells in TAZ – limited growth (no provider in TAZ/provider not growing/un-DAWS)



MUNICIPAL PROJECTION ASSUMPTIONS

- * Demand Assumptions
 - * Large Providers
 - * Examined GPCD trends through 2013
 - * Considered service area characteristics
 - * Did not go below 200 GPHUD
 - * Small Providers
 - * Projected as a whole
 - * Trend line of GPCD
 - * Exempt well users
 - * Updated interior GPCD/interior GPHUD
 - * Assessment pphu



MUNICIPAL PROJECTION ASSUMPTIONS

- * Supply Assumptions
 - * Exempt wells 100% GWTR
 - * Small providers 100% GWTR unless knew of specific case of other supply
 - * Large providers
 - * Individual assumptions for each provider based on service area characteristics
 - * Untreated providers
 - * Phoenix AMA – 2013 demand/supplies held constant
 - * Pinal AMA
 - * Two smaller providers held constant at their 2013 demand
 - * SCIDD grows based on urbanization assumption from agricultural projections; proportion of supplies used maintained at 2013 proportions



CAGRD EXCESS WATER ASSUMPTIONS

- * MLs
 - * Divided projected pop/GWTR demand into four categories for analysis:
 - * 1995 and prior
 - * Post-1995 to 2013 (known replenishment activity and pop/demand)
 - * Post-2013 to 2025 (projected pop/demand that will receive a GWTR allowance)
 - * Post 2025 (projected pop/demand with ZERO GWTR allowance)
 - * If/when GWTR allowance is exhausted future GWTR use is excess
- * MSAs
 - * DAWS tracking sheet
 - * GWTR allowance generally used first, unless historical pattern showed otherwise or minimum excess obligation in MSA agreement
 - * If when GWTR allowance is exhausted, future GWTR minus Incidental Recharge (IR) factor is excess



AWBA Assumptions

- * PHXAMA and PAMA firming goals met before 2025
- * TAMA firming at 92% of goal by 2031
- * Funding affects projected storage in all three AMAs



OTHER UNUSED CAP ASSUMPTIONS

- * Any unused CAP supply is assumed to be stored
- * Unused (“excess”) CAP supply is distributed amongst the three AMAs based on the 1990-2013 trendline of the proportion of CAP stored in the AMAs
 - * PHXAMA proportion decreases
 - * TAMA proportion increases
 - * PAMA proportion remains about the same
- * GSF/USF split is the lesser of:
 - * The volume of “known” GSF to be stored each year
 - * The volume of GSF water the districts can take based on agricultural sector projections
- * Any unused CAP water that is not stored at GSF is stored at USF



AGRICULTURAL PROJECTION ASSUMPTIONS

- * Each AMA, and each district in each AMA has different demand/supply assumptions, tailored to each district/situation
- * Factors:
 - * Current district infrastructure capacity and ability to install new wells
 - * GSF permit limits
 - * Variability in surface water supply (repeat historical “normal” supply)
 - * CAP pool reductions
 - * Urbanization based on TAZ projections and average area/lot/person + open space/commercial/transportation space
 - * Other information obtained from districts/Assessment assumptions (waterlogged area, exempt small rights, etc.)



TRIBAL ASSUMPTIONS

- * Agricultural
 - * Individual assumptions for each entity
 - * Considered CAP leases
 - * Non-CAP surface water is repeated historical “normal” deliveries
 - * Reclaimed based on historical deliveries and exchange agreements
 - * Other sources generally historical averages held constant
- * Municipal
 - * Calculated difference in tribal population between 2000 – 2010 to develop trend to project tribal land population
 - * 57 GPCD
 - * 100% GWTR



INDUSTRIAL PROJECTION ASSUMPTIONS

- * Generally each industrial subsector in each AMA based on historical trends
- * Resolution begins in 2019
- * TAMA used PUG estimate
- * Golf courses do not grow but other types of turf facilities grow slightly
- * Supplies generally remain at historical proportions
- * NIA CAP becomes available in 2017



RECLAIMED WATER ASSUMPTIONS

- * Calculated a reclaimed GPCD rate based on ratio of reclaimed use to total use
- * Applied to projected population/demand
- * Subtracted from total reclaimed generated contractual volumes
- * Subtracted direct use reclaimed water in the four water use sectors
- * Remainder assumed available to store
 - * Divided between managed/constructed facilities based on historical trends and permit limits

