

## 9.0 CONCLUSIONS

### Past and Present:

- In 1979, the Texas Board of Water Engineers concluded that continued high pumping by EPWU in the Hueco was not sustainable
- In 1989, EPWU Hueco pumping hit a peak of about 80,000 AF/yr
- Action by EPWU resulted in reduction in Hueco pumping to less than 40,000 AF/yr in 2002. This level of EPWU pumping had not been observed since 1967.
- As a result of the reduced pumping, groundwater levels have stabilized in some areas
- Fresh groundwater storage in 1974 was estimated to be 10.6 million AF. Based on estimates from the most recent USGS model, the total fresh groundwater storage depletion between 1974 and 2002 was about 1.2 million AF, leaving an estimated 9.4 million AF in storage. An independent analysis based on groundwater quality data also yielded a current fresh groundwater storage estimate of 9.4 million AF.
- With respect to any reasonable planning period (50 or 100 years), groundwater pumping has essentially reached sustainable levels with respect to groundwater storage depletion.
- Brackish groundwater intrusion remains a management issue

### Future:

- EPWU plans to expand groundwater management to address brackish groundwater intrusion by constructing and operating the Joint Desalination Facility (JDF) in cooperation with Ft. Bliss. Operation of the wells for this plant is expected to intercept brackish groundwater, and protect fresh groundwater in the EPWU's airport wells and Ft Bliss wells.
- As a result of JDF pumping, groundwater storage declines in the areas of fresh groundwater will be reduced further.
- Implementation of an artificial recharge project would further mitigate storage declines. However, from a groundwater management perspective, if EPWU and Juarez groundwater pumping remain at essentially current levels as defined in the scenario assumptions, the need for such a project is not critical for the next 20 to 40 years.
- Continued data collection is critical to monitor conditions and improve the understanding of the operation of the JDF.
- A solute transport (water quality) model is needed to more fully evaluate management alternatives