How Will the Permit Renewal Process Consider Climate Change?

Key Questions
• How might changes in temperature and precipitation affect Edwards Aquifer hydrology and springflow?
• What are the relationships between precipitation and springflow?
• How might weather extremes affect the Edwards Aquifer system?
• What is the likelihood of recurrence of a drought of record during the proposed permit duration?
• Would existing EAHCP Conservation Measures protect springflow for Covered Species under future climatic conditions?

Approach
• Identify potential vulnerabilities of Covered Species and their habitats to the effects of climate change
• Use future meteorological data to develop recharge input for groundwater modeling to assess water levels and springflow
• Use modeling results to inform the springflow protection measures considered in the permit renewal to maintain flows for Covered Species
• Consider climate change effects on the availability and condition of Covered Species' needs when designing conservation measures

Process for Evaluating Climate Change Effects on Springflow

Legend
HSPF = Hydrologic Simulation Program - FORTRAN
MODFLOW = Modular Hydrologic Model to Simulate and Predict Groundwater Flows and Groundwater/Surface-Water Interaction