El Paso – Indio Mountains Research Station (EPI)

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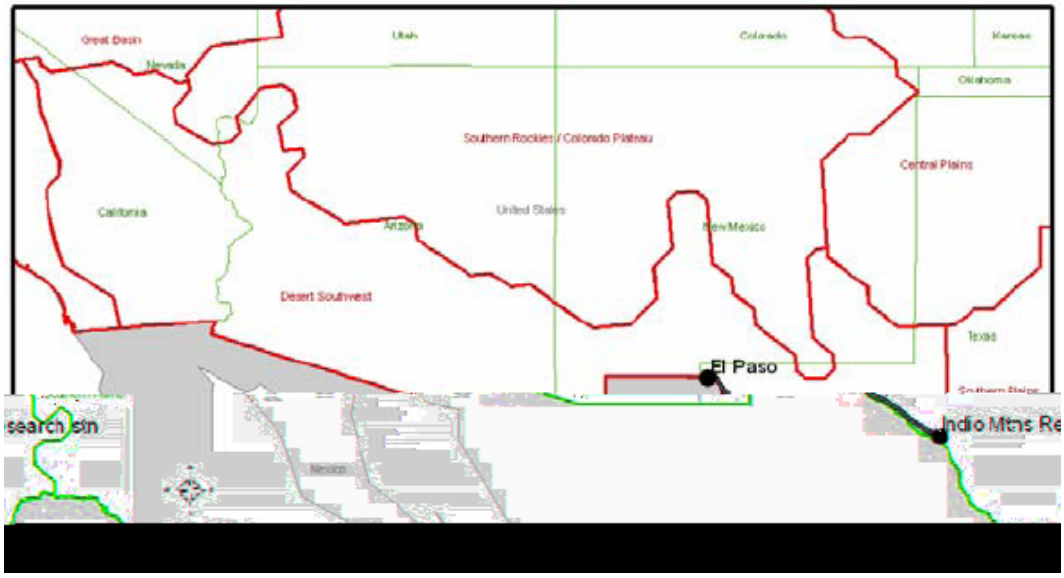
Location Within Domain:



Overview and History: The ELP gradient site will span a corridor along the US-Mexico border from an urban site in downtown El Paso near the UTEP campus through urban, urban fringe, and agricultural lands to a wildland site at UTEP's Indio Mountains Research Station (IMRS), approximately 200 kilometers southeast of El Paso. UTEP was founded in 1914 and has been a hub for local environmental research since this time. IMRS was donated to the UT system in the 1920's and became a dedicated educational and research facility in 1987.

Key Characteristics: Several existing resources can help address climate, land use, and invasive species research themes in urban, aquatic and wildland settings. Land use spans urban, urban fringe, agricultural, and 'unmanaged' wildland at IMRS. Vegetation includes urban, agricultural and riparian landscapes as well as shrublands (mesquite, creosote bush, tarbush), and grasslands (tobosa, black gramma) typical of the Chihuahuan Desert. Elevation ranges span 900- 2000 meters in El Paso and 800 to 1600 meters at IMRS. River (Rio Grande), ephemeral streams or arroyos, wetlands, ponds/lakes and springs are found throughout the area including IMRS. Invasive species of concern in the region include salt cedar, tumbleweed and buffel grass.

Existing Infrastructure: UTEP has a range of faculty with interests in the ecological sciences. Comprehensive herbarium and fauna collections for the area are housed at UTEP. A range of USGS and International Boundary Water Commission (IBWC) river gages and NWS weather stations are found throughout the corridor. IMRS has an extensive history of pitfall trapping, telemetering equipment for tracking fauna, a weather station, and an aquatic monitoring system (water level, temperature, light) in Squaw Spring, the only permanent body of water at IMRS. Additional weather stations, an Ameriflux eddy flux tower, and internet connectivity will be installed at IMRS during 2007. Remote sensing and GIS data are available for the corridor through UTEP's Geospatial Center and the Pan America Center for Earth and Environmental Studies (PACES). There are a large number, of primarily minority focused K-12 science education programs active throughout the corridor.

Facilities: There are a range of secure study site locations throughout the corridor. UTEP hosts modern educational, laboratory and analytical facilities. IMRS is a secure research facility accessible year round through a network of roads. The station hosts an extensive solar power array; sleeping and dining facilities for 30 people; a field laboratory; equipment maintenance, repair, and storage facilities; and a tractor. ATV's will be purchased during 2007.