

El Paso, Texas (urban site)

El Paso is the largest US city in the Chihuahuan desert, the fourth largest city in Texas, and the second largest US city on the US-Mexico border (US Census, 2000). When combined with Ciudad Juarez, Mexico, the bi-national metropolitan area forms the largest population center on any international border (~ 2.2 million people) (Greater El Paso Chamber of Commerce 2006). Approximately 80% of El Paso's residents are Hispanic, the fastest growing minority population in the US, and a third of all residents in the county live below the national poverty level (US Census, 2000). Multiple breaches in environmental justice have been documented in the El Paso area (http://www.scorecard.org/env-releases/county.tcl?fips_county_code=08041#ej). El Paso is also the third fastest growing metropolitan area in the US (Greater El Paso Chamber of Commerce 2006). Thus, the size, geography, demographics, and forecast rate of expansion make El Paso an excellent site for the establishment of a paired NEON urban/urban fringe site in the Desert Southwest Domain and, in particular, the Chihuahuan Desert. Relocatable towers and aquatic sensor sites along an urban / urban fringe transect in the El Paso area will be required to adequately document the impact of urbanization on the ecology of the Chihuahuan Desert and make comparisons with other urban centers throughout the US.

Multiple land holders have expressed interest in hosting sites in the El Paso area including the City of El Paso, the University of Texas at El Paso, the Frontera Land Alliance and Texas Parks and Wildlife, managers of Franklin Mountains State Park, which is being encompassed entirely within the city of El Paso and is the largest urban park in the US. The urban site will most likely be located on the UTEP campus. The UTEP campus is close to downtown El Paso and neighbors some of the oldest communities in El Paso. Adjacent to Interstate 10 and the US-MX border, the UTEP campus is within the depositional footprint of the former ASARCO copper, lead, zinc and cadmium smelter (DiazBarriga et al. 1997), and also receives pollution deposition from largely unregulated maquiladoras (manufacturers) and urban centers in Ciudad Juarez, Mexico (TNRCC 1996). Only a few hundred meters away is the Rio Grande, forming the US-MX border, which receives largely untreated sewage from Ciudad Juarez, and saline, nutrient-rich agricultural pollutants from both sides of the border (Kelly and Contreras 2002). UTEP has a history of monitoring flora and fauna in developed and undeveloped areas surrounding the campus. There are a range of established educational outreach programs that could also synergize with the establishment and maintenance of a site on the UTEP campus. An urban fringe site could be located at various sites around El Paso, including real estate owned by UTEP in outlying suburbs; Franklin Mountains State Park <http://www.tpwd.state.tx.us/spdest/findadest/parks/franklin/>; the Rio Bosque Wetlands Park a mitigated wetland and upland park along the Rio Grande owned by the City of El Paso and managed by UTEP <http://research.utep.edu/Default.aspx?PageContentID=888&tabid=18875>; or at Fort Bliss on military land.

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