

Sevilleta National Wildlife Refuge (SNWR)

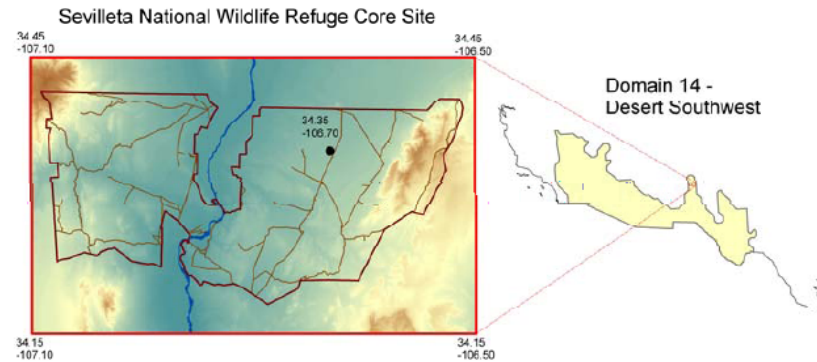
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Location within Domain:

History:

National Wildlife Refuge established in 1973. SNWR joined the LTER Network in 1988. Since that time there has been intensive observational and experimental research on climate

variability, ecohydrology, and biogeochemistry, and producer and consumer communities in and around the SNWR (including the middle Rio Grande valley).



Key Characteristics: Existing vegetation (woodlands: Piñon-juniper, montane coniferous; shrublands: creosotebush, Colorado shrubsteppe plateau (several shrub species), juniper savanna; grasslands: blue grama uplands, black grama uplands, sacaton lowlands; riparian: cottonwood, Russian olive, salt cedar), soil/landform, ecosystem performance, land use history, and climatic features characteristic of Domain #14; existing resources address climate, biodiversity, biogeochemical cycles, invasives, infectious disease, hydroecology and land use research themes; representative of the Chihuahuan Desert; elevation range of 1,525 m (Rio Grande bosque) to 2,745 m (Sierra LaDrone); partnership among two primary institutions – the University of New Mexico (a Hispanic-serving Institution) and the U.S. Fish & Wildlife Service.

Existing Infrastructure: Member of numerous existing networks including the U.S. Climate Reference Network, Organization of Biological Field Stations (OBFS), and Association of Ecosystem Research Centers (AERC), sun photometer, Five Eddy flux and ET towers (CO₂ and H₂O); 7 comprehensive weather stations including precipitation chemistry; long-term data on plant and animal populations, and ecosystem processes (e.g., above and belowground NPP); remotely-sensed data since 1938; >100 minirhizotrons in different habitat types. Experimental infrastructure including rainout shelters in 4 vegetation types (grass, shrub, mixed, Piñon-Juniper), climate warming experiment, monsoon rainfall experiment; long-term N deposition experiment, small mammal enclosure and enclosure infrastructure; established K-12 science education partnership servicing >500 students per year in 16 school systems along the middle Rio Grande (<http://www.bosqueschool.org/BEMP/bemp.htm>).

Facilities: Eight houses on site for 48 with plans to expand to 100, 3 dry labs, library, computer lab, wireless network throughout field station, shop, maintenance and storage facilities; logistical support on-site; 24 hour Refuge-wide safety system via radio, modern utilities at the field station including T1 fiber optics soon to be updated to lambda rail; wireless cloud to all study areas on the eastern half of the refuge to be expanded to the entire refuge in 2007; road access throughout 100,000 ha; secured area with no public access.