Klamath Falls, California, Soil Survey Office

Soil Sampling in Support of CEAP

Purpose

Chris Gebauer and Katrin Chambers from the Klamath Falls Soil Survey Office provided soil sampling in support of the NRCS Bay-Delta Water Quality Emphasis Area Initiative and the modeling efforts of the Conservation Effects Assessment Project (CEAP) for the Sacramento Bay-Delta area. The pedon that was sampled is in Modoc County in northeastern California.

Buntingville soil on an alluvial fan.

Key Outcomes

The pedon represents the Buntingville soil series. The soil had been previously identified as lacking sufficient laboratory data for modeling purposes by the CEAP modeling effort in the Klamath Basin and Bay-Delta Watersheds. The sampling will lead to full chemical, physical, and mineralogical laboratory characterization of the soil. The data will become part of the national soils database, available for use in modeling, conservation planning, and soil survey updates.

The National Cooperative Soil Survey SSURGO database is composed of spatial data that provide a framework for the delivery of soil property data and interpretations to users. The soil property data are informed by field descriptions and by laboratory sampling of a subset of the field observation sites. The soil property data delivered to the public are aggregated from field observations and sampling. Not all the data available to the public have been verified with lab-sampled data. As the National Cooperative Soil Survey has moved from an era of initial mapping to an era of updating, unifying, and strengthening the SSURGO database, data gaps have been addressed and filled. This project is part of the work to fill in data gaps that inform the information delivered to the users.

The Buntingville soil (ashy, glassy, mesic Vitrandic Argixerolls) is a very deep, somewhat poorly drained soil on fan remnants and stream terraces. It is mapped primarily in Modoc County, in northeastern California and covers 16,170 acres. The soil formed in ashy, loamy alluvium derived primarily from tuffs, andesite, basalt, and tuff breccias. Mean annual precipitation in the area is about 330 millimeters (13 inches), and mean annual temperature is about 9 degrees C (49 degrees F). The soil is mainly used for irrigated cropland or pasture.

Buntingville soil profile.