An aerial photograph of a vast desert landscape featuring large, undulating sand dunes. The dunes are illuminated by warm, golden light, likely from a low sun, creating long shadows and highlighting the textures of the sand. In the background, a range of blue mountains stretches across the horizon under a clear sky. The overall scene is serene and expansive.

BLM Report: Meeting the Challenges of a New Era In Soils

**Bill Ypsilantis
National Science & Technology Center
Denver, Colorado**

Population explosion in the West



Current Priorities

Energy and Mineral Development



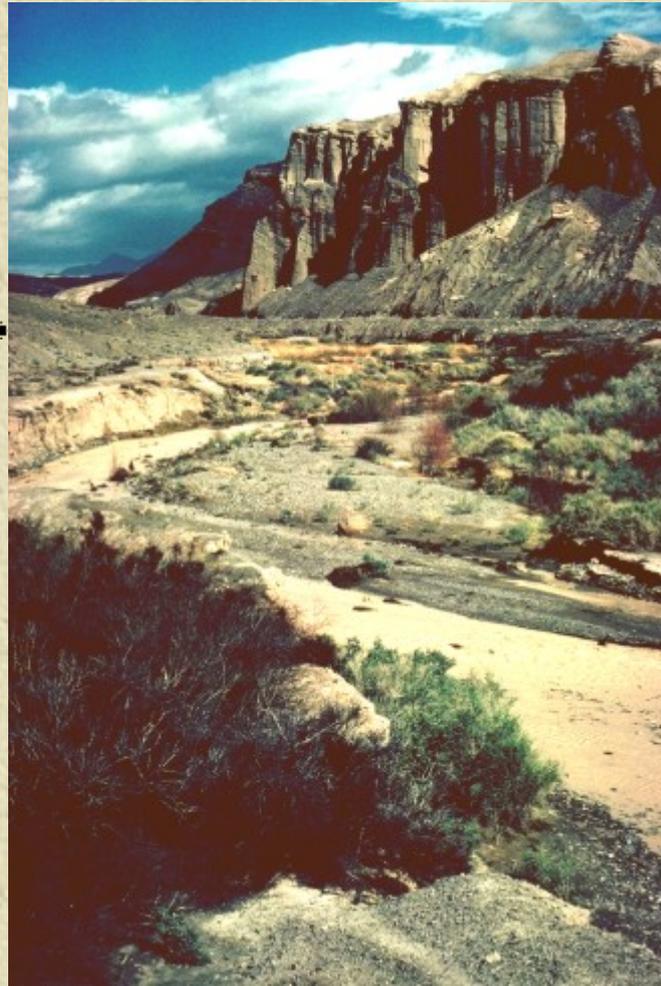
Current Priorities

Proximity of Human Habitation to Public Lands



Current Priorities

Updating Land Use





National Landscape Conservation System

National Conservation Areas and National Monuments



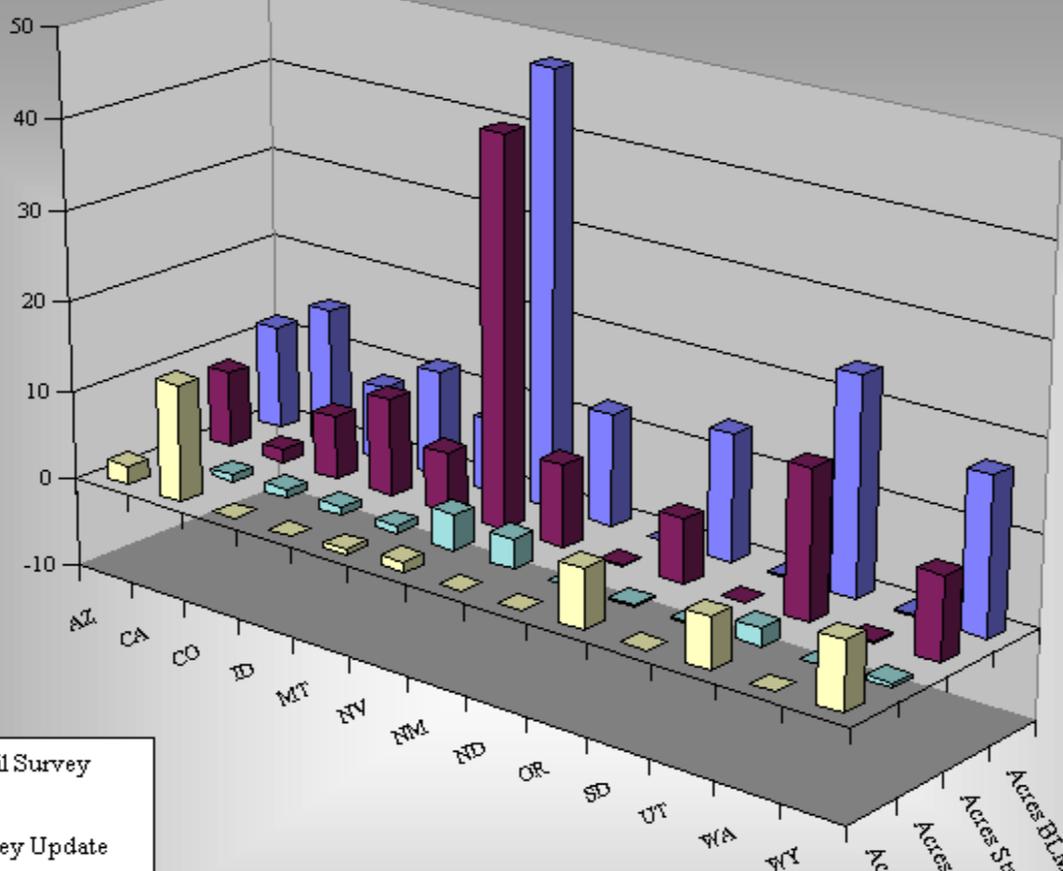
- National Conservation Area
Cooperative Management and
Protection Area and Forest Reserve
- Desert Conservation Area
- BLM National Monument
- State Boundary
- BLM Lands



Western States Scale = 1:9,000,000
 Alaska Scale = 1:15,000,000

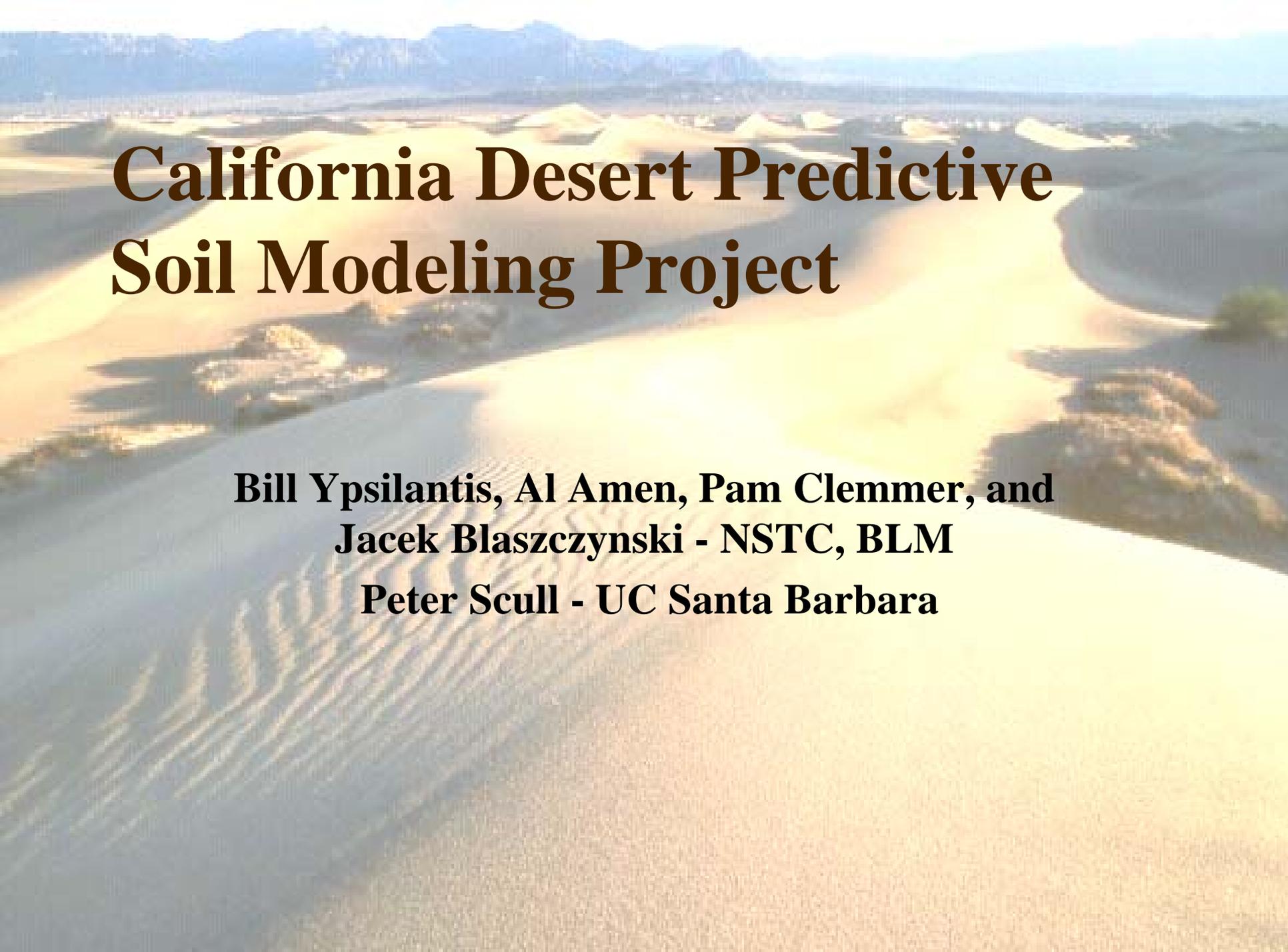
BLM Soil Survey Needs

Millions



- Acres Initial Soil Survey Needed
- Acres Soil Survey Update Needed
- Acres Standard Soil Surveys Completed
- Acres BLM Rangeland

Acres BLM Rangeland
 Acres Standard Soil Surveys Completed
 Acres Soil Survey Update Needed
 Acres Initial Soil Survey Needed

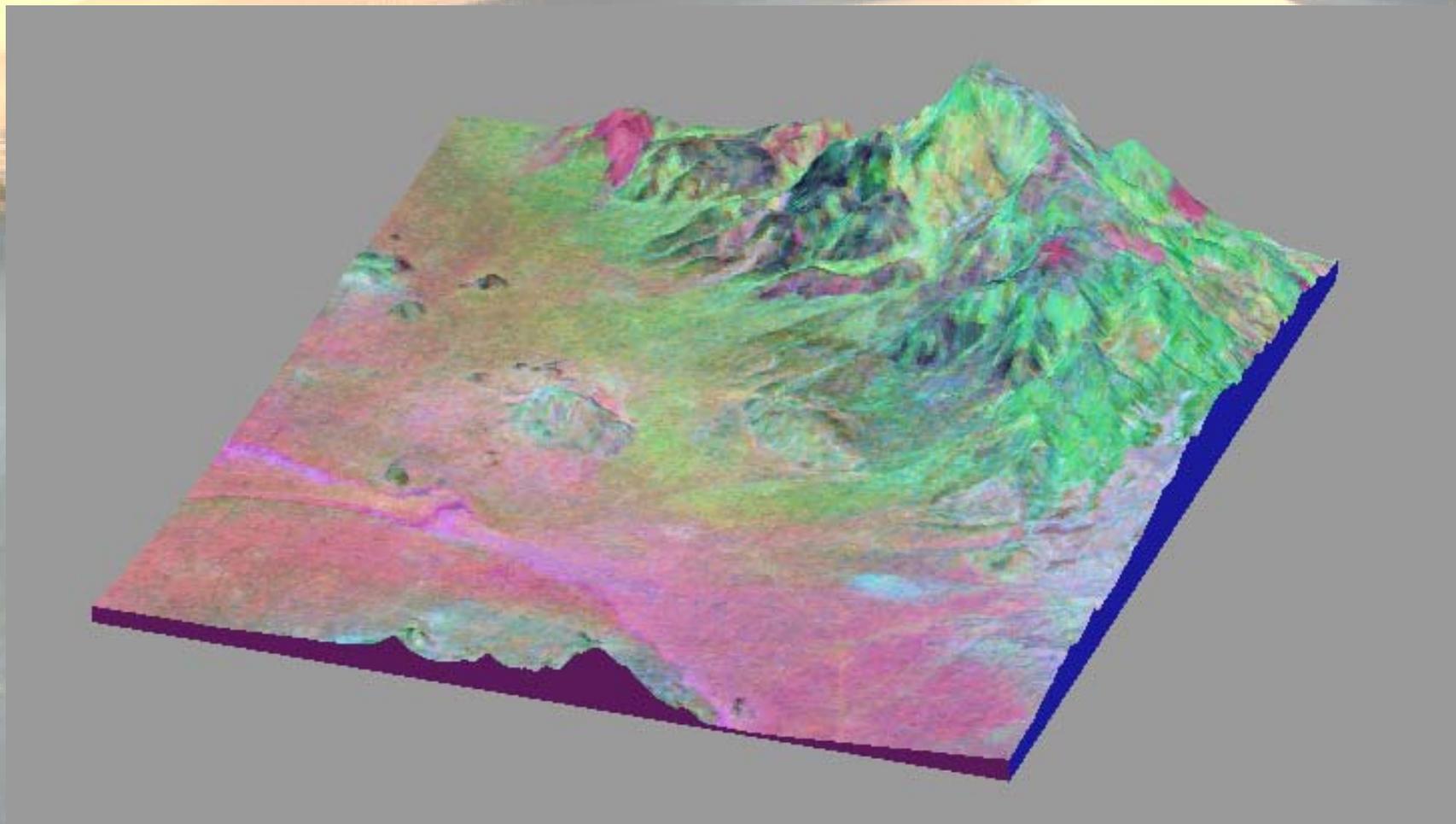
An aerial photograph of a vast desert landscape featuring numerous sand dunes. The dunes are illuminated by bright sunlight, creating sharp shadows and highlighting the ripples on the sand. In the background, a range of mountains is visible under a clear sky. The overall scene is a typical representation of a California desert environment.

California Desert Predictive Soil Modeling Project

**Bill Ypsilantis, Al Amen, Pam Clemmer, and
Jacek Blaszczyński - NSTC, BLM
Peter Scull - UC Santa Barbara**

Galway Lake Quadrangle

Band Ratio draped over DEM



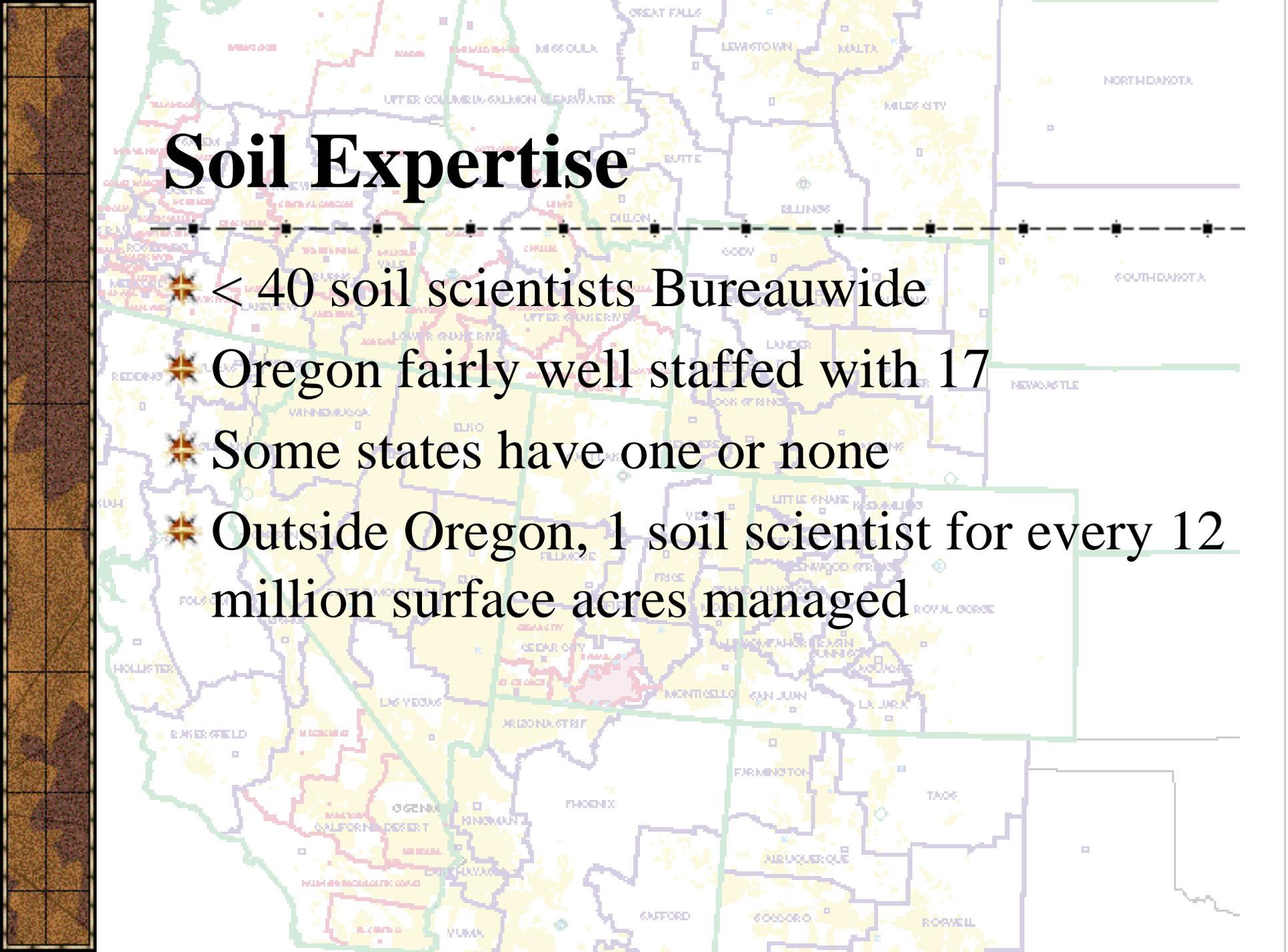
Johnson Valley OHV Area



Galway Lake Quadrangle

Digital Orthophoto



A map of the United States with a grid overlay. The map is color-coded by region, with yellow for the West, green for the Midwest, and light blue for the South. Major cities and states are labeled. A dashed black line runs horizontally across the middle of the map, passing through the text.

Soil Expertise

- ✦ < 40 soil scientists Bureauwide
- ✦ Oregon fairly well staffed with 17
- ✦ Some states have one or none
- ✦ Outside Oregon, 1 soil scientist for every 12 million surface acres managed



Just for Kids

SOIL BIOLOGICAL COMMUNITIES



Home



Soil Importance



Incredible Journey



Amazing Facts



Fun Activities



Explore Your Mind



Adopt a Soil Critter



Want to Know More?



Kids' Gallery



Hi Kids!

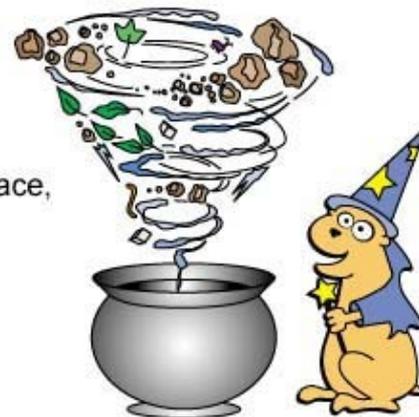
I'm Wilbur, the soil wizard.
What's your name?
I live in the soil.

What is soil?

Soil is the top layer of the Earth's surface, like frosting on a birthday cake!

It's the stuff you play on in your backyard. Your grass grows on it. You might call it dirt instead of soil.

Soil is made from rocks that are broken up into tiny pieces, as well as dead leaves, roots, twigs, dead bugs, and stuff like that. It also has water and air in it.



Teacher



Website Credits