National Park Service
U.S. Department of the Interior

National Park Service Update

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Western Regional Cooperative Soil Survey Conference
Davis, CA
June, 2012
There are 134 western NPS properties, 87 have soil surveys considered complete by NPS.

These parks comprise 76.5 million acres of Federal lands in the west.

Alaska park acreage alone is 48 million acres (of 84 million acres nationally).
Current NPS Interagency Agreements with NRCS in Western Region

- 15 parks in 7 western states have current agreements with NPS for soil mapping
- comprising 10.5 million acres
- These agreements total $2.25 million annually
Alaska

Klondike Gold Rush National Historical Park

Yukon-Charley National Preserve

Klondike National Historic Park

Glacier Bay National Park

3.3 million acres
Arizona

Sunset Crater, Walnut Canyon, and Wupatki National Monuments
California
Joshua Tree National Park
Mojave National Preserve
King-Canyon Sequoia NP
Montana

Glacier National Park

Wyoming

Fossil Butte National Monument

8,200 Acres - Special Soil Survey Report from 1970s exists, but no data in NASIS
Lake Mead National Recreation Area

Data clipped by the NPS boundary

Shoreline and water levels do not match between soil survey areas

Differences in soil map unit design due to ages of the soil surveys and order of mapping

4 separate soil survey areas in 2 states not easy to retrieve/view on WSS for users

No current work agreement
New Mexico
White Sands National Monument

Resides within
White Sands
National Missile
Range

Carlsbad National Park

1:12,000 scale, Order 2
NPS wants SSA set up
Utah

Capitol Reef National Park

Zion National Park

County mapping where lines were drawn through Federal Lands
LiDAR data available parkwide, NPS also supporting mapping of park landforms to support soil survey. Initial mapping.
Current Issues For the NPS

Harmonization
NPS has spent over $25 million in last 12 years to acquire soils information and wants to be sure NRCS is “in tune” with NPS before soil data on NPS lands are “harmonized”

Reorganization
New office assignments for QA/QC and interagency agreement consistency
Using Soil Survey Information

Susan Southard, NRCS Soil Scientist, National Soils Interpretation Staff, National Soil Survey Center, Lincoln, NE
NRCS-NPS Cooperative Tasks

• 270 park properties in NPS Soil Inventory
  - 59 finished under interagency agreements (at a cost of $25 million over last 12 years)
  - 21 various stages of completion or on wish list

that leaves

190 parks using clipped SSURGO; we develop manuscripts for some, maintain NPS System lands in NASIS for all, and prepare data for use
Making soils data interesting information

• Soil formation and reasons behind soil distribution within a park
• Simple photo map units
• Property maps - SOC/SIC
• Historical or ecological significance of soils beyond traditional agronomic use of soil surveys
• Retrieve point and lab data for use

All to create a new “The Story Behind the Scenery”
The Soil Story Behind the Scenery
1754

Lt George Washington’s Hydric Soil Dilemma
The Soil Story Behind the Scenery

1862

A House Made of Kennebec

265 Tons C per acre

Soil plugs from unplowed trampled schoolyard
The Soil Story Behind the Scenery

Johnstown Flood National Memorial

1889

- Seepage
- Piping
- Unstable excavation walls
A Different Kind of Sand

The Soil Story Behind the Scenery

1942
The Soil Story Behind the Scenery
2012
A Different Kind of Sand
The Soil Story Behind the Scenery

2012

Itmann soils
The Soil Story Behind the Scenery

The future

- Will soils be part of the planning?

- Example: Possibility of many thousands of well pads, water retention ponds and access roads for natural gas extraction within the Upper Delaware Scenic River watershed
Thank you!
If I have time......
Harmonization Suggestions

• Series classification – CEC classes, update mineralogy, check components/pedons

• See if an Official Series Descriptions exists and matches SSURGO data

• Scale and order of mapping – explain methods used to resolve differences in map unit design and land use when joining or harmonizing....1:12,000 matching to 1:24,000, and use of FAMILY (Redding Family). Discussion

• Joining – coordinate with Federal partners...do they know you are editing lines and tabular data? Would also be good discussion here at the meetings

• Point data – ex. Great Smokey NP ~200 researchers/24 with “soil” in permit name

• End result - no need for post-SSURGO processing of data to in order to supply consistent information.... I’m all for that!

• Harmonization should not be Homogenization
The Soil Story Behind the Scenery

John Muir Historic Site
The Soil Story Behind the Scenery

1200 AD

Cinder Mulching