



USGS Sediment Data Portal

National Water Quality Monitoring Conference

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USGS sediment portal

- **Changes to natural sediment transport impact the water-quality and biology of streams and rivers**
- **In its third decade, the USGS NAWQA Program is conducting regional and national syntheses of suspended-sediment data**
- **Our first product was intended to inventory and broadly report on available suspended-sediment data**
- **We identified some issues to resolve...**

Issues synthesizing sediment data

- Available suspended-sediment data were incomplete

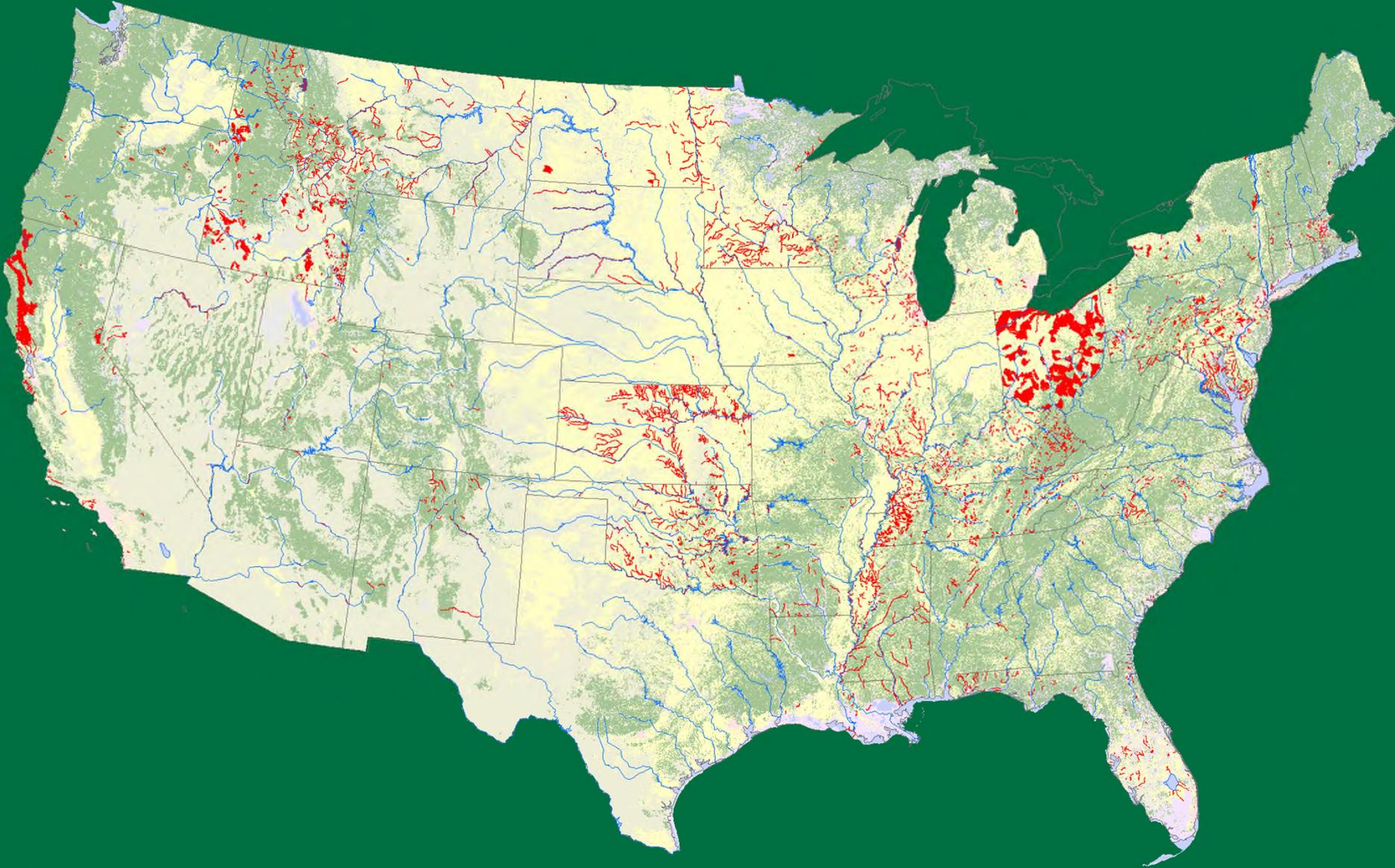
We completed an extensive data recovery process

- All data may not accurately represent in-stream conditions

We screened and performed quality control checks on discrete suspended-sediment data

- Sediment data are difficult to interpret

EPA 303(d) listed sediment/turbidity impairments



Problems with synthesizing sediment data

- Available suspended-sediment data were incomplete

We completed an extensive data recovery process

- All data may not accurately represent in-stream conditions

We screened and performed quality control check

- Sediment data are difficult to interpret

We pulled together ancillary information on streamflow and basin characteristics to help with analysis

We produced a report summarizing discrete, daily, and sediment-related data across the U.S.

USGS sediment portal

- We envision it as a central hub for all things fluvial sediment
- Key features
 - Allow users to view, filter and download discrete and daily USGS suspended-sediment data
 - Access to ancillary data on grain size, flow, and basin characteristics
 - Updated annually
- Benefits
 - Improved assessments of factors affecting the movement of sediment
 - Improved identification of sediment-related impairments
 - Increased visibility and use of USGS suspended-sediment data

cida.usgs.gov/sediment

The screenshot displays the USGS Sediment Data Portal interface. At the top left is the USGS logo with the tagline "science for a changing world". The main header area includes the text "USGS Sediment Data Portal" and navigation links: "Apply Filter", "Clear Filter", "Download Data", and "HELP".

The central feature is a map of the United States and parts of Canada and Mexico, overlaid with numerous colored dots representing sediment data sites. A legend on the right side of the map, titled "Site Legend", defines two types of sites: "Discrete Sites" (represented by blue dots) and "Daily Sites" (represented by red dots). It notes that dot size is proportional to available samples for discrete sites and reflects years of suspended sediment data for daily sites.

Below the map is a "Base Layer" menu with options: Topographic, World Image, NLCD, States, Counties, HUC8, NHD Flowlines, Ecoregion Level 2, USGS Basin Boundaries, Daily Sites (checked), Discrete Sites, and National Inventory of Dams.

On the right side of the interface are three filter panels:

- Boundary Filters:** Includes fields for Basin Boundary, Ecoregion Level 2 Number, HUC, and a dropdown for States.
- Data-Characteristic Filters:** Includes fields for Min Years of Daily Data, Min Discrete Samples, and Year Range (between and).
- Site-Characteristic Filters:** Includes a checkbox for Hydrologic Benchmark Sites, and fields for USGS Station ID, USGS Station Name, Drainage Area (mi²), Soil K-Factor, R-Factor, Soil Permeability, Urban Land Use (%), Ag Land Use (%), and Forest Land Use (%), each with a "between and" range selector.

At the bottom left, there is a scale bar (500 km / 500 mi) and a "Site Legend" button. The bottom of the page contains footer information including "Accessibility", "FOIA", "Privacy", "Policies and Notices", "U.S. Department of the Interior | U.S. Geological Survey", the URL "http://cida.usgs.gov/sediment/", "Page Contact Information: Sediment Portal Help", and "Page Last modified: 01/15/2014 19:34:55". Logos for "FIRST GOV" and "TAKE PRIDE IN AMERICA" are also present.

Final Notes

- **Version 1.0 of the sediment portal was released in November of 2013**
- **Plan to update data and upgrade functionality in June of 2014**
- **Version 1.0 is only a portion of the total vision**
- **Future priorities**
 - **Expanded data views and analysis**
 - **Addition of dam, reservoir sedimentation and bedload data**
 - **More point and click ability and expanded downloads**
 - **Outside agency data**

For more information...

- Sediment portal:

<http://cida.usgs.gov/sediment>

- USGS Report Summarizing Suspended Sediment Data across the United States:

<http://pubs.usgs.gov/ds/776/>

- Email: cjlee@usgs.gov

