

National Digital Trails

PROJECT OVERVIEW & DEMO

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Your Source for Topographic Information



Objectives

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Project Overview & Update



Current Plans

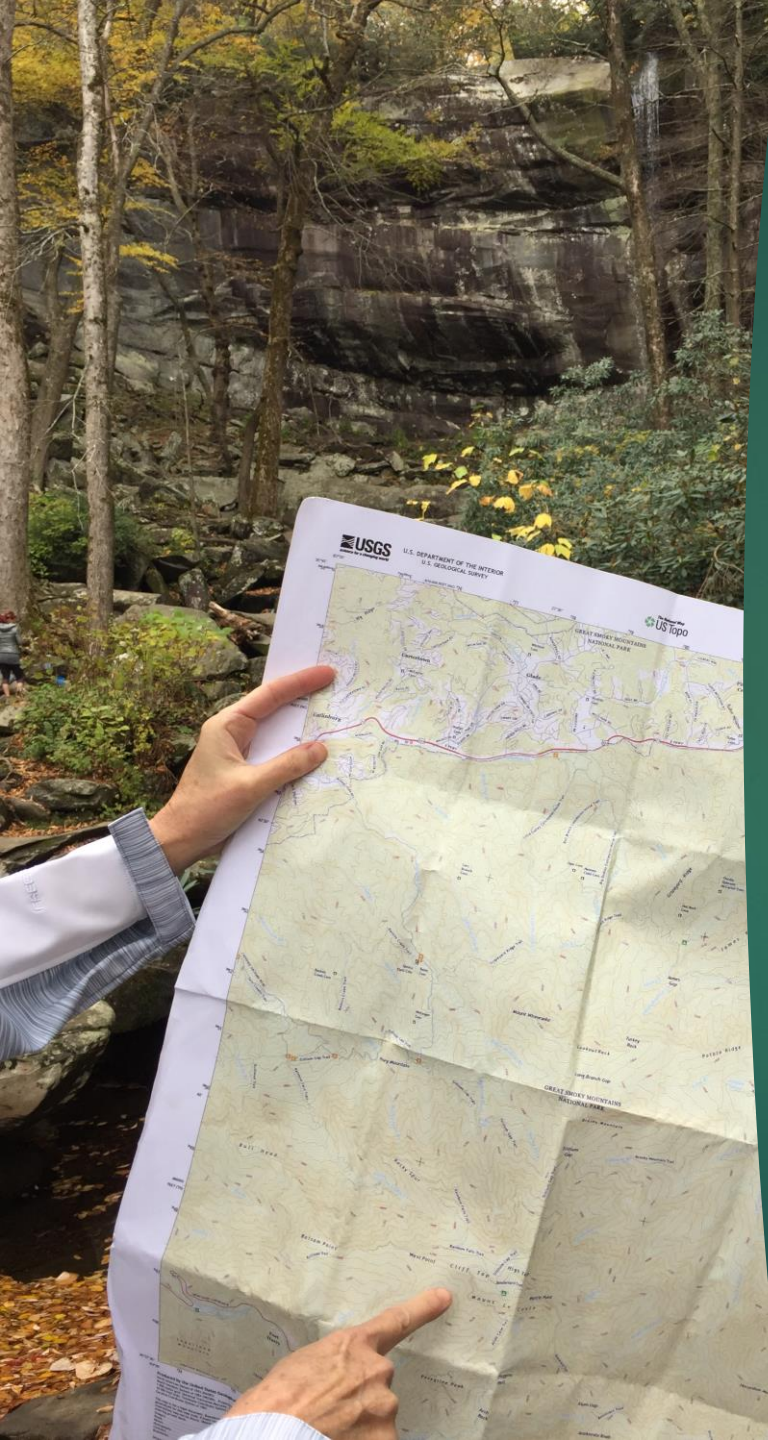


TRAILS planning tool - Demo

Why USGS?



- ▶ The National Geospatial Program
- ▶ The National Map – Topographic Information for the Nation
- ▶ Data Themes – Boundaries, elevation, hydrography, land cover, structures, and transportation
- ▶ Data Products – US Topo maps; 3DEP Elevation; National Hydrography Dataset



Project Overview

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“Connect trails systems to expand recreational opportunities on the Nation’s public lands.”



Why trails?

- ▶ Expanding recreational opportunities contribute to better health and increased economic development
- ▶ Improving access promotes equity and inclusion
- ▶ Trails are an important part of our Nation's transportation system



Goal 1 – Create a web-based trail planning support tool (TRAILS) to identify potential routes for connecting existing trails and trail systems.

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- ▶ Released 12/2019
- ▶ Continuing refinements

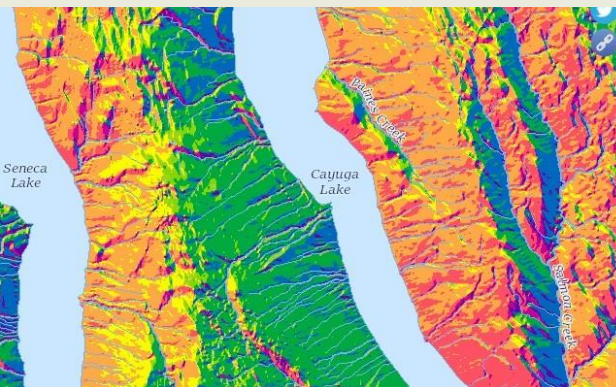
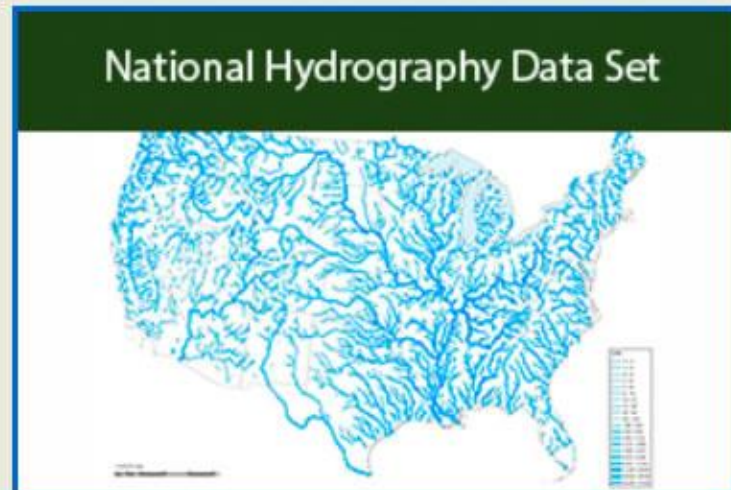
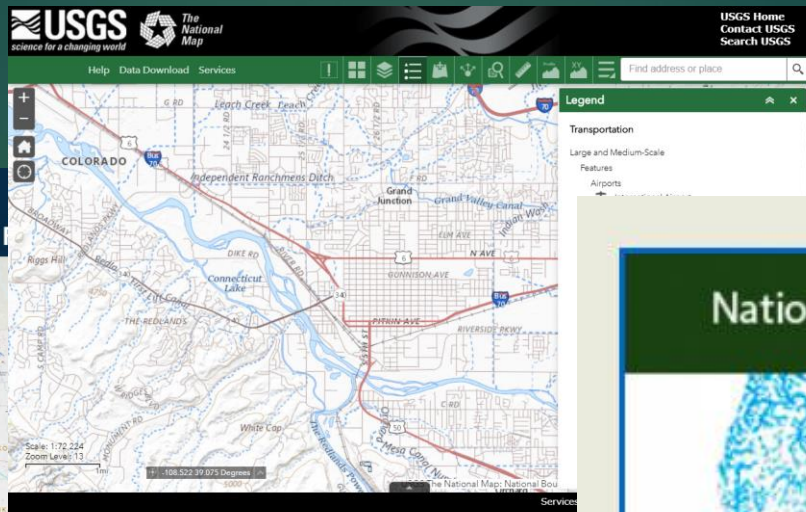
The screenshot shows the TRAILS web application interface. On the left, there is a "Scenario Settings" tab and a "Filter" section. Below the filter, it says "Showing 47 of 77 proposed trails". A list of trails is displayed, each with a checkbox, a title, terrain constraint, connector length, proposed network length, and scenario. The trails listed are:

- Rock Creek Trail to Mt. Healy Overlook Trail (Terrain Constraint: Low, Connector Length: 1.55 Miles, Proposed Network Length: 49.22 Miles, Scenario: Healy - Cantwell - Kesugi Ridge)
- Jack River Overlook to Null (Terrain Constraint: Low, Connector Length: 0.96 Miles, Proposed Network Length: 5.40 Miles, Scenario: Healy - Cantwell - Kesugi Ridge)
- East Fork Chulitna to Null (Terrain Constraint: Low, Connector Length: 1.07 Miles, Proposed Network Length: 3.10 Miles, Scenario: Healy - Cantwell - Kesugi Ridge)
- Savage Cabin Interpretive Trail to Null (Terrain Constraint: Low, Connector Length: 1.33 Miles, Proposed Network Length: 8.09 Miles, Scenario: Healy - Cantwell - Kesugi Ridge)
- Jack River to Middle Fork Chulitna (Terrain Constraint: High)

At the bottom of the list are buttons for "Check All", "Uncheck All", and "Delete Checked". On the right, a topographic map of Alaska shows the proposed trails overlaid on the terrain. The map includes labels for rivers like the Toklat River, Savage River, Chulitna River, and Susitna River, and locations like Lignite, Suntrana, and Wanert Fork. The state of Alaska is also labeled.

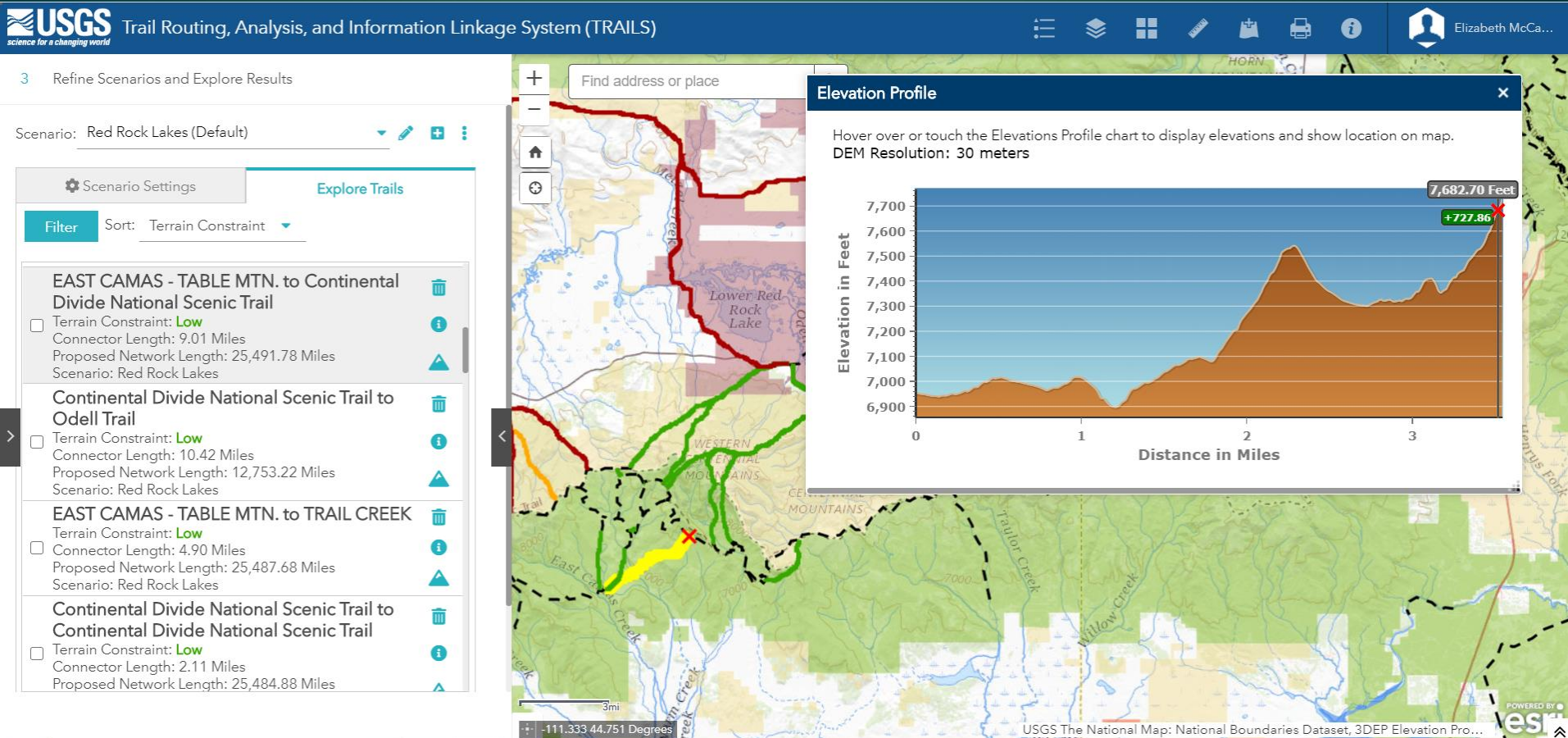
Trail planners define importance of input datasets to generate potential connector routes.

USGS
science for a changing world
Protected Areas Database of the U.S. (PAD-US) -



Candidate connector routes (trails) are ranked, displayed, and shared in a web-map interface.

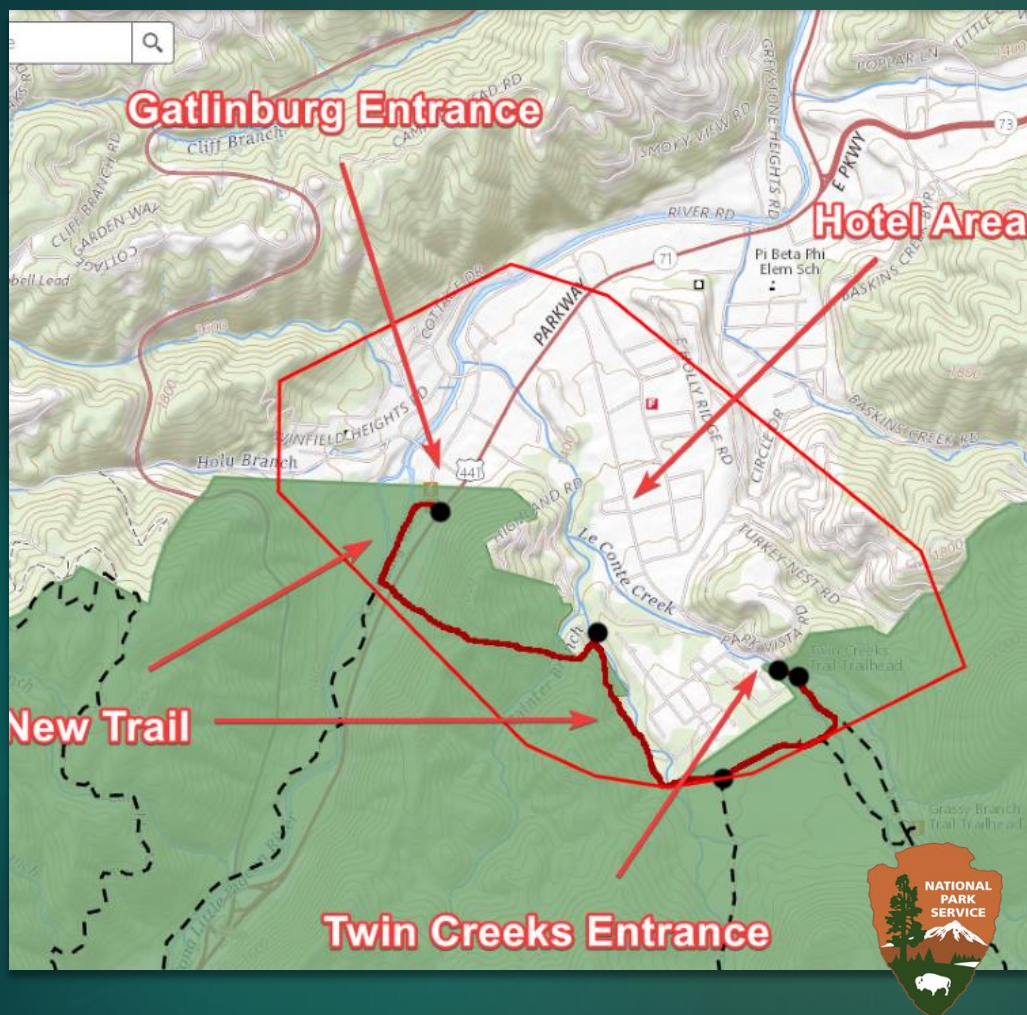
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Connecting FWS and USFS Trail Systems

- ▶ Canaan Valley NWR – 23 miles of trails and over 57,000 visitors per year
- ▶ Dolly Sods Wilderness – 47 miles of trails
- ▶ West Virginia





Great Smokey Mountain National Park

- ▶ 12.5 million visitors
- ▶ Reduces congestion
- ▶ Enhances visitor experience
- ▶ Gatlinburg, TN

Benefits – Trail Planning Tool

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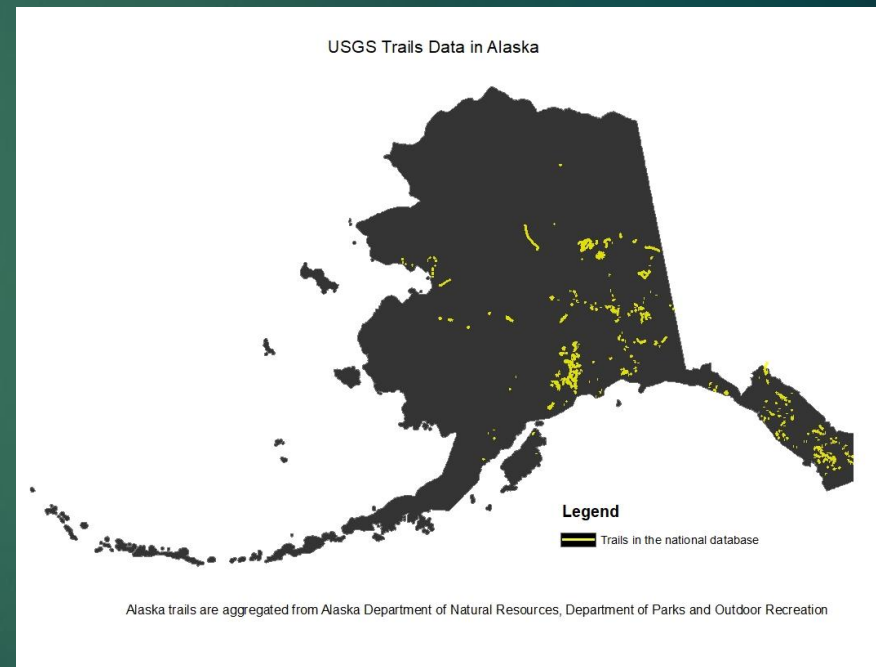
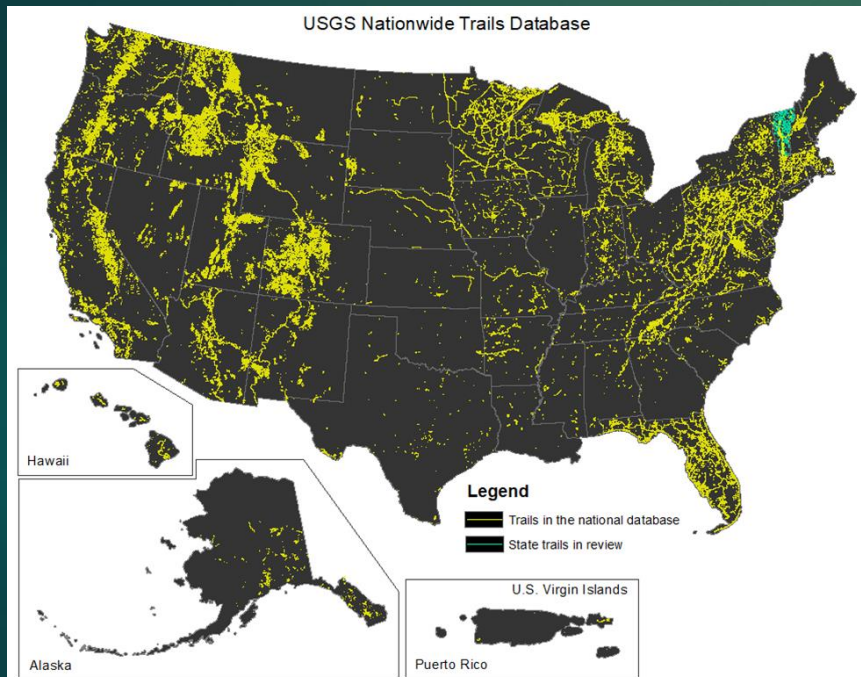
- ▶ Trail planning and visualization
- ▶ Interagency collaboration
- ▶ Web-based, no special software or advanced mapping skills required
- ▶ Utilizes nationwide trail dataset
- ▶ Supports advanced analysis



Goal 2: Create a robust nationwide digital (GIS) trails database

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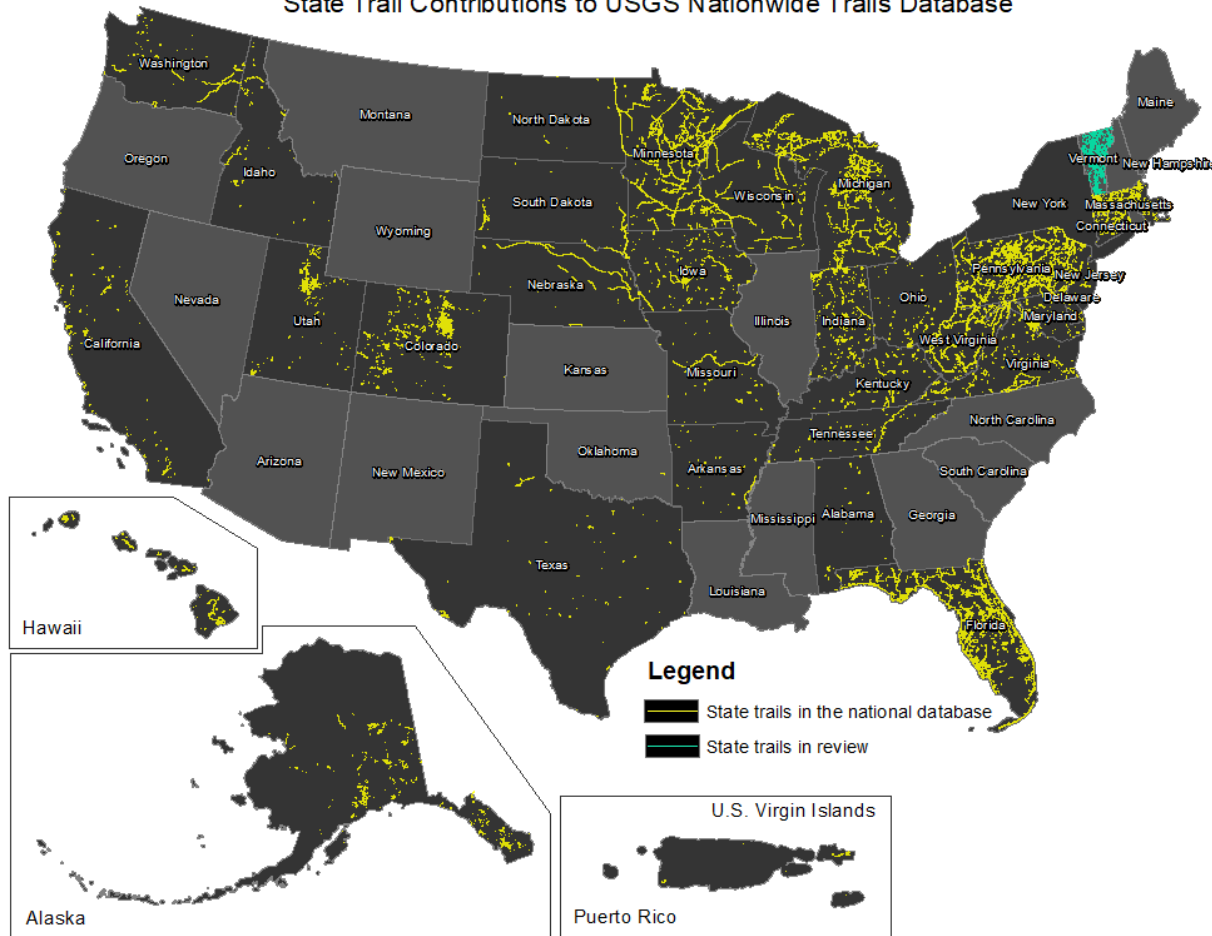
- ▶ ~95,000 miles of trails added to database (~270,500 total)
- ▶ Collaborative effort: Federal, State, and some local trails



State participation

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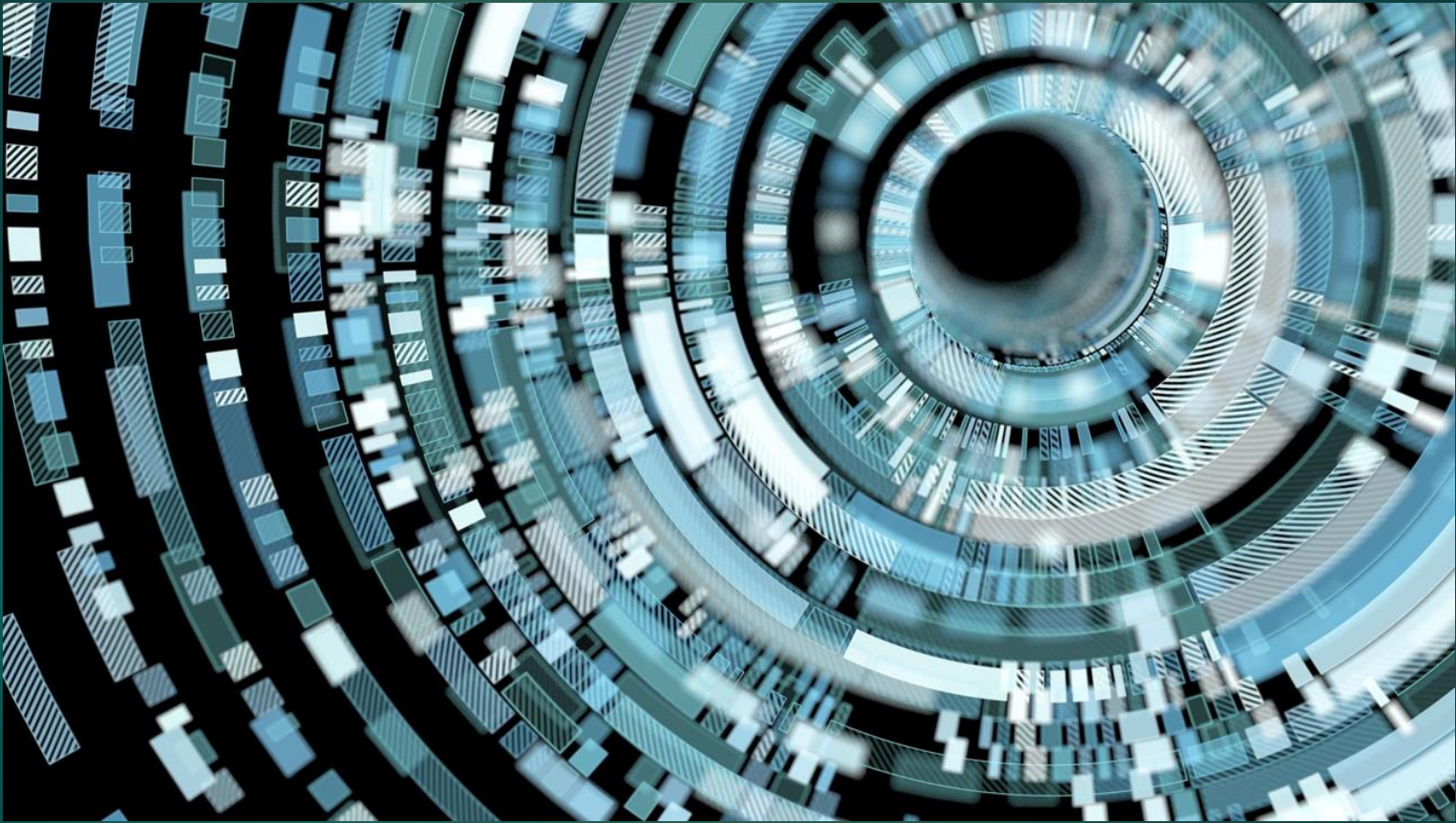
State Trail Contributions to USGS Nationwide Trails Database



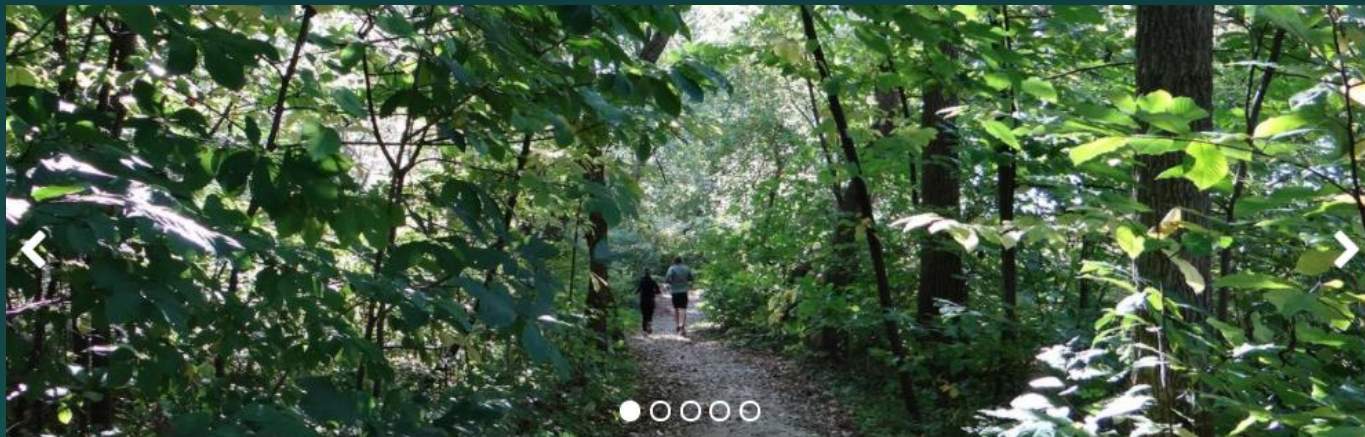
- ▶ 34 States & counting
- ▶ Federal GIS Trail Schema promotes data interoperability
- ▶ Trail Data Portal – streamlines data integration

Six Ways to View or Access the Nationwide Trails Dataset

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1. The National Digital Trails Project Page



HOME

Home

DATA & TOOLS

Connecting trails to expand recreational opportunities on the Nation's public lands.

CONNECT

PARTNERS

The National Digital Trails Network project was developed in response to the Department of Interior's (DOI's) vision to expand recreational opportunities on the Nation's public lands.

NEWS

Our Nation is home to a vast network of recreational trails traveled by millions of citizens. The trails are managed by numerous organizations and jurisdictions and do not form a coherent, connected network. The overall objectives of this project are to provide data and tools to enable land managers to visualize opportunities to increase the connectivity within this network.

News



Date published: JULY 14, 2020

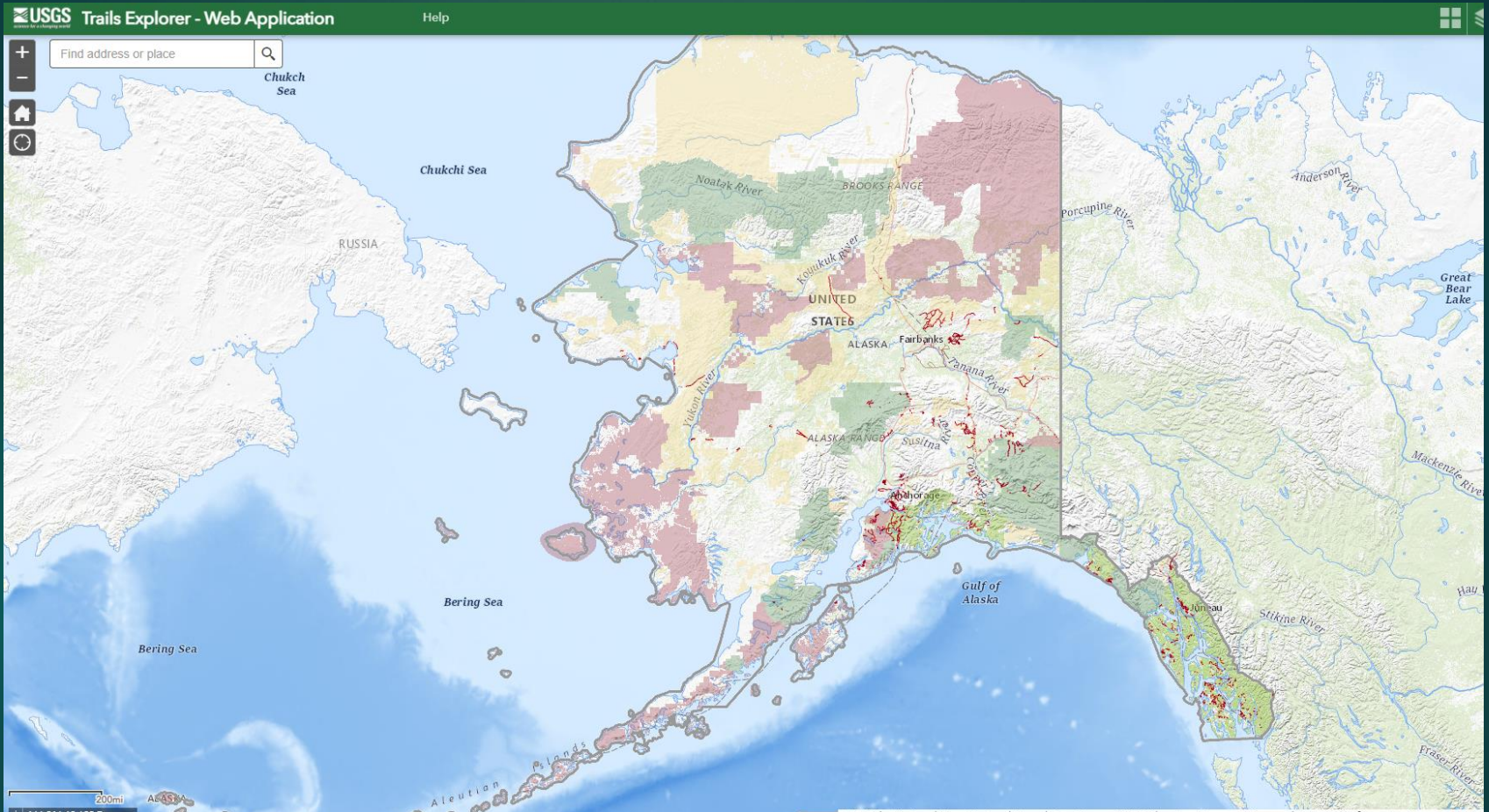
TRAILS Project Earns the 2020 Esri SAG Award

The Department of Interior sponsored National Digital Trails Project and USGS [National Geospatial Program](#) (NGP) have been selected to receive a Special Achievement in GIS (SAG) Award for the [Trail Routing, Analysis, and Information Linkage System \(TRAILS\) decision support tool](#).

Attribution: Core Science Systems, National Geospatial Program



2. Trails Explorer



<https://usgs.maps.arcgis.com/apps/webappviewer/index.html?id=d3c32c758316402dbd8292b7ffea720e>



3. The National Map Viewer

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USGS Home
Contact USGS
Search USGS

Help Data Download Services



Services Accessibility FOIA Privacy Policies and Notices

<https://apps.nationalmap.gov/viewer/>



4. The National Map Data Download Site

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The screenshot shows the USGS National Map Data Download Site interface. The top navigation bar includes the USGS logo, 'TNM Download (V1.0)', and links for 'How to', 'Start Over', 'Custom Views', 'Share Link', and 'Contact Us'. The main content area is divided into two panels. The left panel, titled 'Datasets', contains a 'Find Products' button and a list of dataset categories. Under the 'Product Search Filter' section, the 'National Transportation Dataset' is selected and circled in red. The right panel features a map of the Yellowstone National Park area, with a search bar and various map controls. The map shows geographical features like the Gallatin River, Madison River, and Yellowstone Lake. The bottom of the map displays the coordinates 45.1263, -110.9682 and a scale bar.

5. The National Map Data Services

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USGS The National Map Viewer

The National Map - Service Endpoints

Subscribe to SNS messages to receive emails regarding changes to the status of TNM services - [Get Notifications about Changes to our Services](#)

Notice: Service URLs are case-sensitive. All USGS services are available through SSL connections by using the https protocol.

Expand All Collapse All Reset View Show Only These Categories Search by Keyword

USGS National Map publishes **41** services in the list below.

- Base Maps (Cached)
- Availability/Index Overlays (US Topo, 3DEP...)
- Theme Overlays (NHD, Names, Elevation, Transportation...)**
- Natural Hazards
- Other Featured Data
- Web Feature Services (WFS)**
- WCS Services
- Land Cover
- Other Services

Accessibility FOIA Privacy Policies and Notices

U.S. Department of the Interior | U.S. Geological Survey
URL: <https://viewer.nationalmap.gov/services/> Page Last Modified: 26-Jun-20
Page Contact Information: [The National Map](#)

USA.gov
Department of the Interior



<https://apps.nationalmap.gov/services/>

6. The National Map Staged Products



USGS Home
Contact USGS
Search USGS

The National Map

Staged Products Directory

Last Modified	Size	Key

		../
2015-11-19T16:00:37.000Z	0.1 kB	
	0	Contours/
	0	Elevation/
	0	GeographicNames/
	0	GovtUnit/
	0	Hydrography/
	0	LndCvr/
	0	MapIndices/
	0	Maps/
	0	NAIP/
	0	NAIPPlus-HRO/
	0	Small-scale/
	0	SmallScale/
	0	Struct/
	0	TopoMapVector/
	0	Tran/
	0	Vector/



<http://prd-tnm.s3.amazonaws.com/index.html?prefix=StagedProducts/>

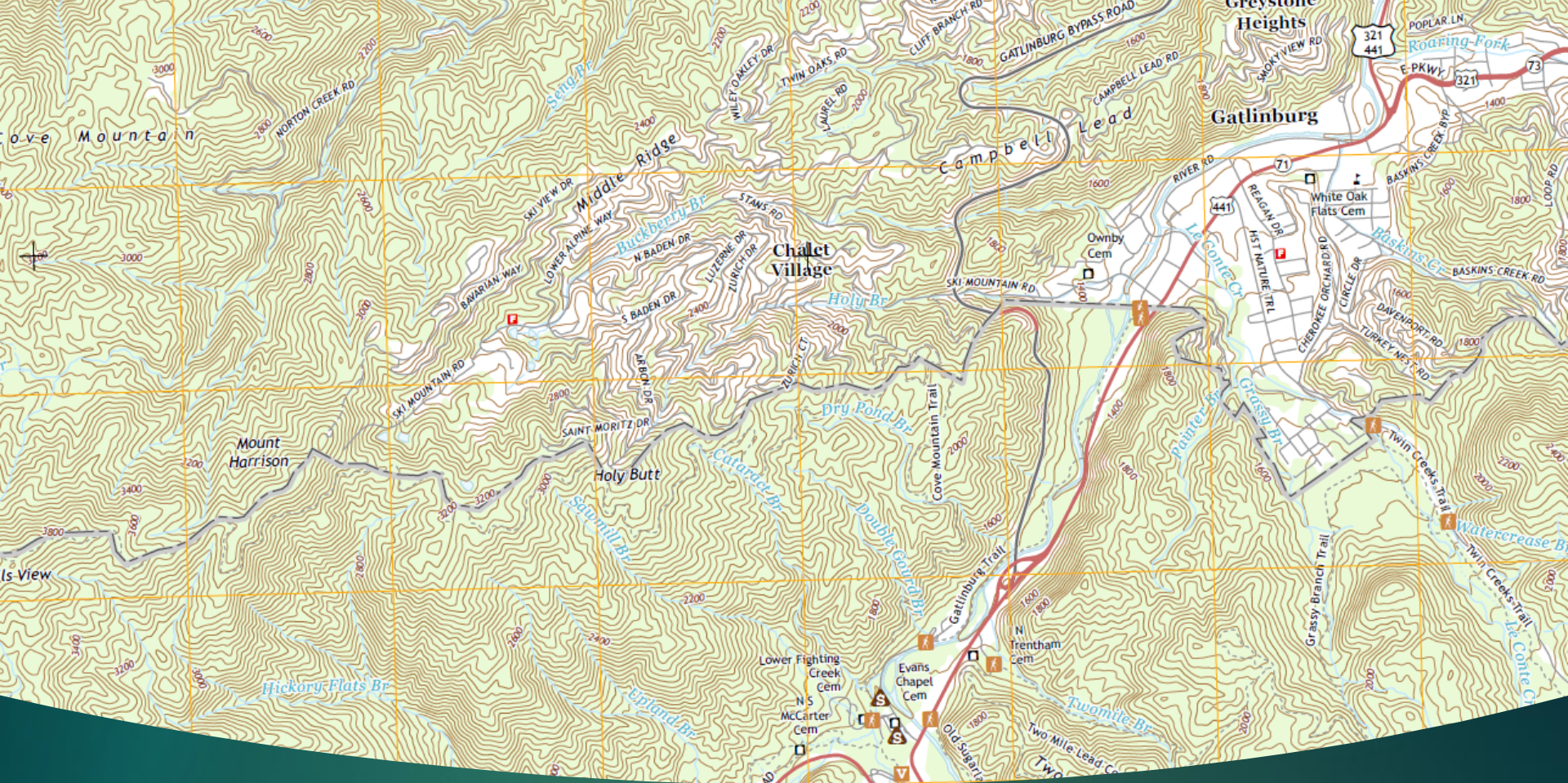


Legend

- USGS Aggregated Trails**
 USGS Aggregated Trails
—
- DOIRegions**
 DOI12UnifiedRegions20180801
- PAD-US 2.0 - Federal Fee Managers**
 FederalFeeManagers_Auth
 - Department of Defense (DOD)
 - Bureau of Land Management (BLM)
 - National Park Service (NPS)
 - Forest Service (USFS)
 - Army Corps of Engineers (USACE)
 - Bureau of Reclamation (USBR)
 - U.S. Fish and Wildlife Service (FWS)

Benefits – Provides a clear picture of trails on adjoining lands and highlights gaps.



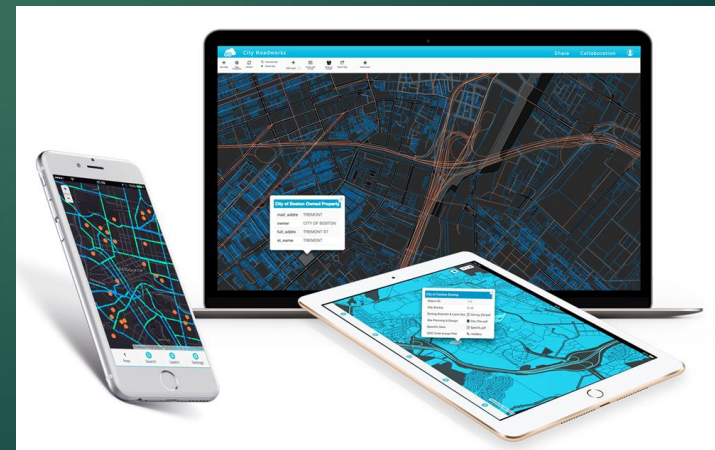
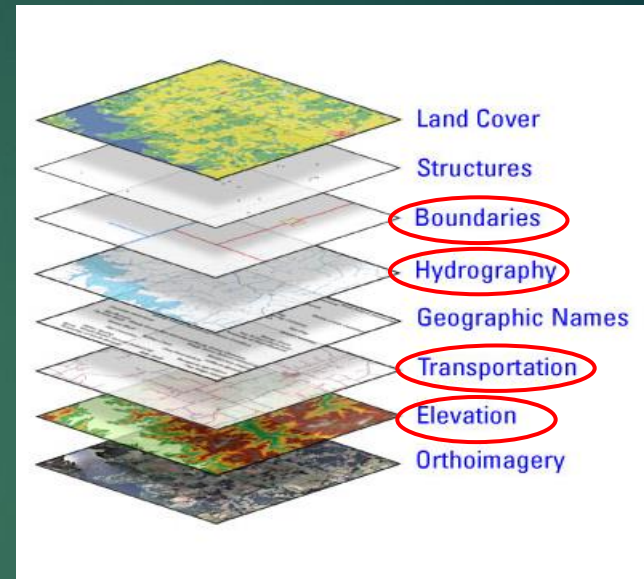
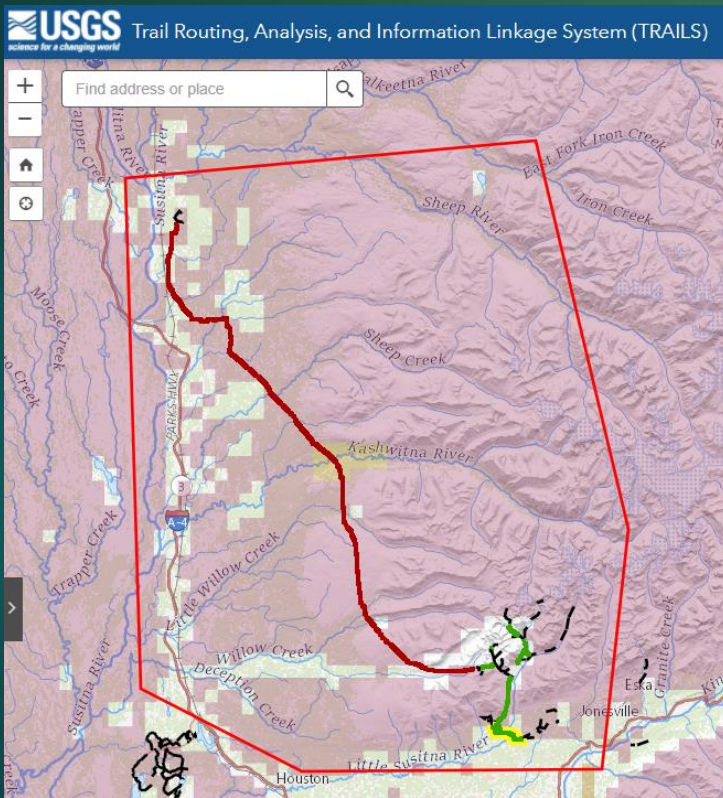


Benefits – Supports The National Map and related products including US Topo maps.



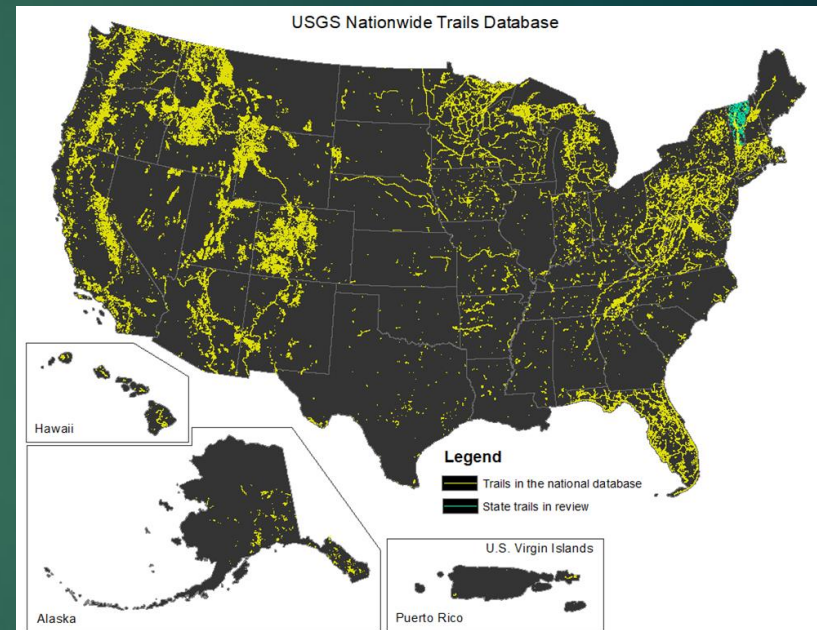
Benefits – Public Domain Data is an Infrastructure Investment for Planning & GIS

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Benefits – Facilitates trail data sharing and interoperability

Field Name	Definition
Name	Trail Name
Trail Type	Basic surface (Terra, Water, Snow)
Trail Use Type	Hike, bike, horse, etc.
Data Source	Who provided the data?



Conclusion - Improving access

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- ▶ Over two years building partnerships and interagency collaboration
- ▶ Improved data interoperability and sharing
- ▶ Provided tools for building and improving the nationwide trails network





TRAILS Demonstration



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