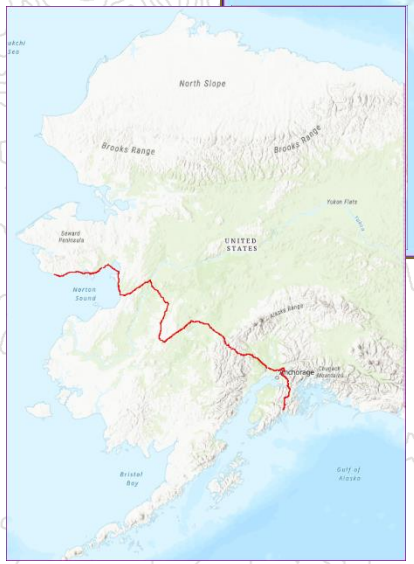
Introduction to the Federal Trail GIS Schema

A Unified Strategy



FGDC
FEDERAL GEOGRAPHIC DATA COMMITTEE

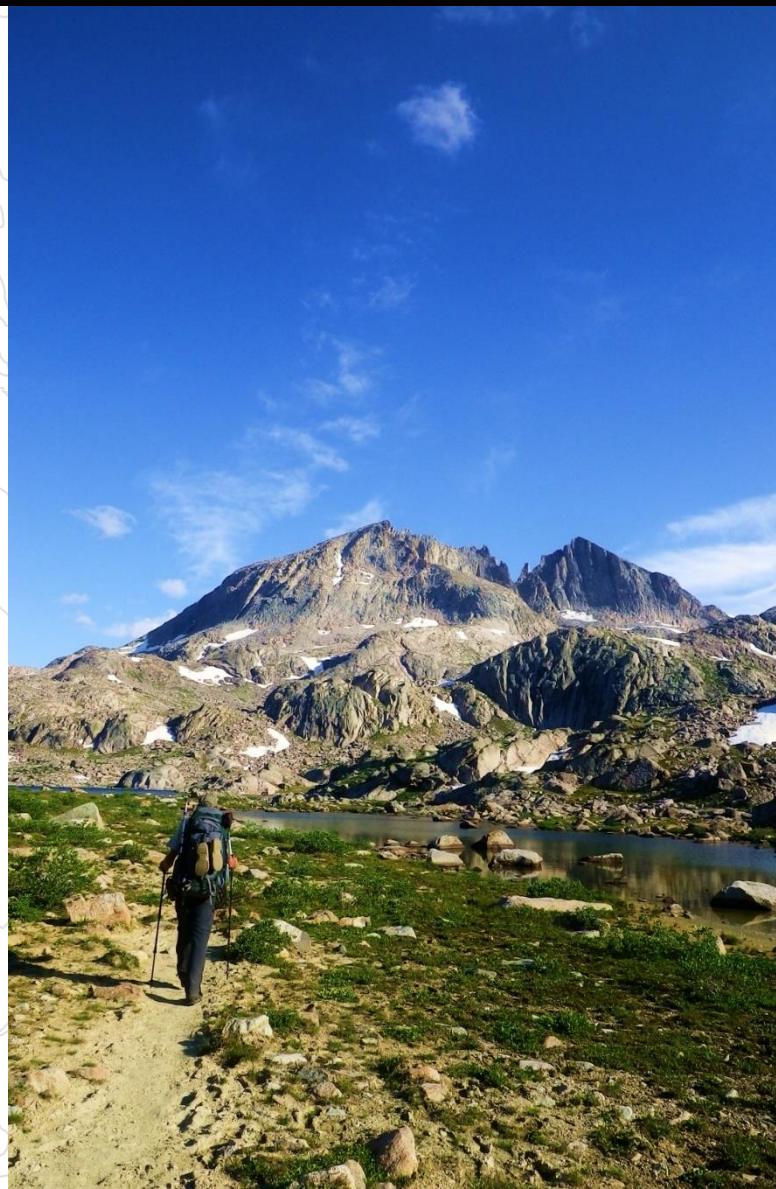
U.S. Department of Transportation

FEDERAL AVIATION ADMINISTRATION

USGS
science for a changing world

Agenda

- **Purpose**
- **Workgroup History**
- **Current Status:** Review Period
- **Explore the Schema**
- **Next Steps:** Where we are headed
- **Use Cases**
- **Summary:** Benefits of the schema
- **Workgroup**
- **Question & Answer Session**



Purpose

- **Create a nation-wide GIS trail data schema template from the Federal Trail Data Standard**(2011) that can be utilized by all agencies and partners to establish a unifying and common trail GIS data structure.
- **Federal Trail GIS Schema (FTGS):** Flexible to include all trails – local and National Trails (FTDS)
- **FTGS provides better GIS coordination and collaboration between agencies and partners for**:
  - Trail projects
  - Efficient sharing of authoritative trail data with the public and across management
  - GIS decision making support for trails
- FTGS template utilization is highly encouraged, but not required

Workgroup History

- **2017 Continental Divide NST/Arizona NST -** Utilizing Federal Trail Data Standard (FTDS) for Geographic Information System (GIS) location database
- **June 2018 Workgroup started monthly meetings** - CDNST (FS), AZNST (FS), Lewis and Clark NHT (NPS), NPS, USFS, some BLM interest
- **May 2019 USGS National Digital Trails joined effort**
- **Federal Geographic Data Committee (FGDC) - Transportation Theme Chair and Co-chairs joined effort** (DOT and FAA)
- **July 2020** – Presented to National Trails Roundtable
- **September/October 2020** – BLM/USACE join working group
- **February 2021** – Finalized documentation and database template
- **March 2021** – Public Review until March 31, 2021

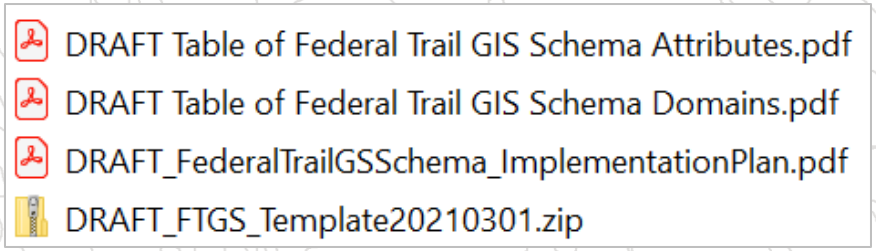
Current Status

30-day Review Period March 1- March 31, 2021

- GeoPlatform.gov/ngda-transportation/federal-trail-gis-schema-working-group - *Federal Trail Data Schema Introduction* provides background
- Partnership for National Trails (PNTS) – NPS National Trails GIS Network
  - PNTS Blog
  - *Pathways Across America* magazine (mid-May)
- **Agency Review** – USGS, NPS, USFS, BLM, USFWS, USACE, FAA, DOT, BIA, FHWA
- **National Trail Agency Leads and GIS Managers** (Agencies and Partners)
- American Trails – National Recreation Trails database
- Rails-to-Trails Conservancy | New England Rail-Trail Spine Network map
- **Other Non-Governmental Organization's**

Explore the Federal Trail GIS Schema

Materials for Review:



- *Federal Trail GIS Schema Implementation Plan* document
- *Table of Federal Trail GIS Schema Attributes* document
- *Table of Federal Trail GIS Schema Domains* document
- Federal Trail Schema - Esri File Geodatabase template includes:
  - Domain tables
  - Core line feature class
  - Extended Core line feature class
  - National Historic Trail Sites point feature class

Explore the Federal Trail GIS Schema

Key Takeaways:

- **FTGS Minimum Fields** – focused on publicly facing data
- **Add Local Level Managed Fields** – stays local
- **Core** line feature class = minimum set of fields for all Trails
  - TRNAME/TRNUMBER = Local trails
- **Extended Core** line feature class = Core + National Trail minimum fields
  - NATTRDESIGNATION/NSTNHTNUMBER
- **National Historic Trail Sites** point feature class
  - Specific to NHT's
  - "Intended for heritage sites associated with the National Historic Trails including National Register of Historic Places (NRHP), high potential sites, certified sites, and public use sites."

Explore the Federal Trail GIS Schema

Key Takeaways:

- **Feature level metadata in Core & Extended Core:**
  - Edit Date tracking: EDITDATE
  - Creation method tracking: MAPMETHOD
  - Accuracy tracking: XYACCURACY
- Appendix C – Trail Class Matrix & NHT Definitions
- Appendix D – Data Stewardship - data sharing and authoritative sources for trail information
    - trail administrator
    - land manager
    - partner organization

Next Steps

- **Workgroup Responds to Comments**
  - ~ 30 days to respond
  - Adjust the database and documentation based on comments
  - Depending on complexity of changes from comments
    - 2nd round of review
    - ~ 2 weeks
- **Final Federal Trail GIS Schema: GeoPlatform.gov website**
  - FGDC Transportation Theme for public distribution
- **Advertise final schema within advocacy groups and agencies**
- **Change Log –** track suggested changes over time to improve the schema

Use Cases

- **USGS National Digital Trails Project**
  - USGS *nationwide* public domain digital trails database aggregated from a variety of federal, state, local, and other authoritative data sources
  - The nationwide database underpins the TRAILS planning (geospatial analysis) application which enhances connectivity between trails and trail systems
- **Federal Highway Administration transportation aggregation** – trails as transportation
- **American Trails – National Recreation Trails**
  - NRT Ambassador Program
- **National Trails (Scenic/Historic) – single database of all national trails (public)**
- **PNTS/Trust for Public Lands – Gap Analysis of National Trails**

Summary

- **Benefits of Adopting = Original Purpose**
  - **Create a national GIS trail data schema** that can be utilized by all agencies and partners to establish a unifying and common trail GIS data structure (local and National Trails)
  - **Better GIS coordination and collaboration between agencies and partners for**:
    - Trail projects
    - Efficient sharing of authoritative trail data with the public and across management
    - GIS decision making support for trails
- **All government levels & NGO's -** standardization & aggregation
- **Federal Geospatial data acts:**
  - 2018 Geospatial Data Act
  - 2019 OPEN Government Data Act
  - 2019 Foundations for Evidence-based Policy Making Act

Workgroup

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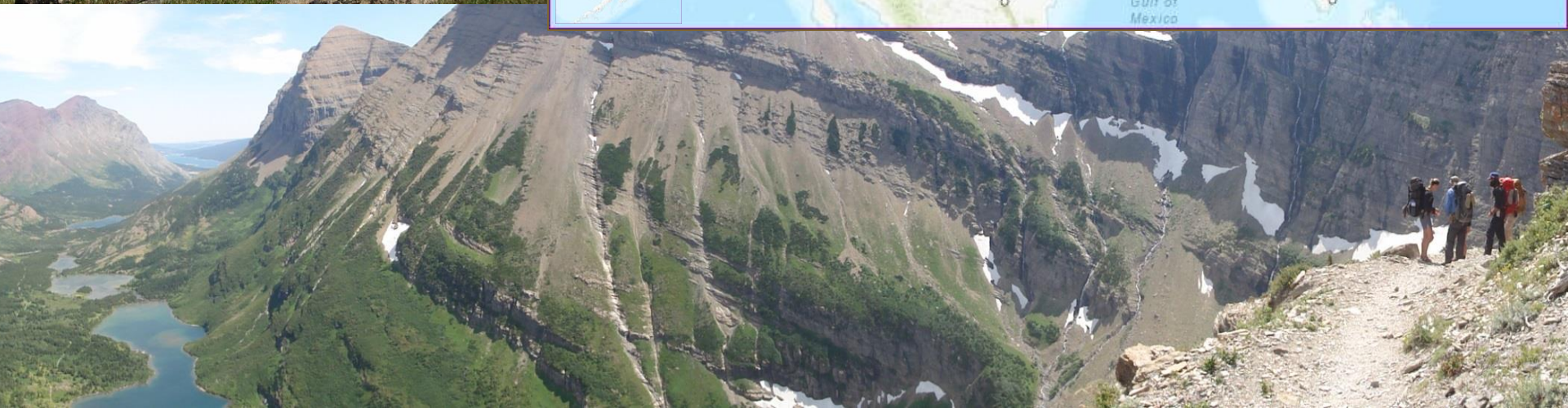
Questions?

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