

NTS GIS Network- Meeting Minutes

Tuesday, March 16, 2021, 1:00 pm Mountain Time (12pm PT, 2pm CT, 3pm ET)

MEETING AGENDA

1. **Welcome & Introductions** (Ryan Cooper/Peter Bosnall/Kerry Shakarjian/Brian Deaton)

Meeting Attendees:

1. Tiffany Stram - GIS/IT Specialist, Ice Age Trail Alliance, Cross Plains, WI
2. Leslie Haig (DOT/BTS)
3. Gita Urban-Mathieux, USGS National Geospatial Program, Federal Liaison
4. Brett Riggs, Western Carolina University; Trail of Tears research
5. Tatyana DiMascio - USGS, National Digital Trails project
6. Paige Yelen & Katy Milke, Western Carolina University; Trail of Tears Research
7. Ben Silvernail, US Army Corps of Engineers
8. Denise Wesley, GIS Manager Trinity County Resource Conservation District
9. Taylor Willow - USFS, CDT
10. Lara Celtnieks - US Army Corps of Engineers - Wilmington District
11. Kim Penner, US Army Corps of Engineers, Kansas City
12. Steve Hayden - Pacific Northwest Regional Office - USFS, Recreation Data Specialist, TRAILS and Developed Rec Sites
13. Sarah Rivera, Regional Mobile GIS Specialist, USFS Southwest Region
14. Elliott Plack, Maryland DOT GIS, OpenStreetMap Trail Mapper, local community trail advocate
15. Galen Keily, Pacific Crest Trail Association
16. Matt Schulte, Santa Fe Trail Association
17. Lisa Delmonico, USFS National Data Program Manager, D.C.
18. Angie Southwould, NPS Alaska Region GIS
19. Anthony Tridente, USFS
20. William Parrish
21. Dan Hernandez, US Army Corps of Engineers
22. Carin Farley, BLM National Scenic and Historic Trails (Lead)
23. Don Owen
24. Melissa Twaroski, USFS
25. Terry Terry, USFS
26. Theresa Nallick, USFS
27. David Welch

2. **Announcements & Information from Audience**

- a. [Esri User Conference](#) (Virtual), July 12-15, 2021
- b. [PNTS Events page](#)

3. **Discussion Topic**

Presenter: Kerry Shakarjian, NPS Alaska Region, GIS Specialist/Data Manager

Introduction to the Federal Trail GIS Schema

The Federal Trail GIS Schema Working Group, launched in June of 2018, has developed a geospatial template that provides a standardized framework for storing trail spatial data. The template can be utilized by all agencies and partners to establish a unifying and common trail GIS data structure. The Federal Trail GIS Schema is meant to be applied to trails of all kinds, including National Scenic Trails (NST) and National Historic Trails (NHT). The Federal Trail GIS Schema will make it achievable to have better GIS coordination and collaboration between agencies and partners for various trail projects, efficient sharing of authoritative trail data with the public, and better GIS decision making support for trails.

Notes:

- Welcome to presentation of Federal Trail GIS Schema (FTGS). Powerpoint will be available on Partnership for National Trails System (PNTS) website.
- A number of different agencies have been involved in this effort and the history of this effort.
- Agenda – Will start with the purpose, workgroup history, current status, explore the schema, go over next steps and use cases, summary, and who is on the workgroup and finally question and answer session.
- My background in trails began with the Continental Divide National Scenic Trail. That lasted until 2018 and when I left the position. In 2016 I started working for the NPS as a data manager/data standard GIS Specialist. I managed NST data and I have worked in the private sector with trails. Thank you to all on the workgroup for their help.
- Purpose – Nationwide data schema that can be used by all agencies and partners. Federal Trail Data Standard (FTDS) is a paper document standard and the implementation of it was never created. The FTDS was the starting point for the schema. The FTGS is flexible for all trails. The schema provides better coordination and collaboration between agencies and partners for trail projects, efficient sharing of authoritative data, and GIS decision support for trails. Easier to share data if both entities are using the same schema and if there is an aggregation of data, this schema will help do that.
- Workgroup History – Back in 2017 started looking at FTDS to use for data management. Also Arizona NST was going through the same effort. Candance Bogart USFS and I began to discuss the use of the FTDS and how everyone is using it differently. Need a standardized schema. Workgroup started with USFS (CDNST), AZNST, Lewis and Clark NHT, Other NPS, and BLM Interest. May 2019 USGS National Digital Trails joined effort – USGS looking to aggregate data. FGDC – Transportation Chair and Co-chairs became involved. They became involved because the working group needed to find out how to get the schema approved for distribution to the public. Geoplatform.gov is used to distribute the schema in review to the public. We were looking at the process of approval, since the schema does not have any data, then it does not need to go through FGDC approval. July 2020 workgroup presented to the National Trails Roundtable. Federal agency trail leads. Wanted to gain their interest in the workgroup efforts and spread information to their partners regarding the review of the schema. BLM and US Army Corp joined the work group. March 2021 sent out schema for public review. The workgroup is made up of various agencies and GIS Specialists.
- Review Period – Still time for input to review. The review is on the geoplatform website. There is more background regarding the schema in the introduction. PNTS is also providing information about the schema. The geoplatform website has the review on its website and review some background on the workgroup. If you click on the review, you can see more information and the zip file. The zip file includes documents and the file geodatabase. One can see the current review comments and the FAQ. Here is the PNTS website where information about the schema is posted. Also been disseminated out for internal agency review. The National Trail agency leads were also given the information to send out to partners. American Trails, Rails to Trails Conservancy are also in the know along with other organizations.
- Explore the Federal Trails GIS Schema Includes draft documents and file geodatabase. Do not use shapefiles due to loss of domains. The domain tables are used as a quick lookup table. One can also alter the domain tables if not all domains are needed. The domain tables do not have to be in your database. They are for reference and future alterations if needed. There is a core line feature class and is the minimum fields for all trails. There is the extended line and includes core and minimum fields for National Trails. Also the NHT Sites. The NHT Sites are the heritage resources for the national historic trails. These cover National Register listed and eligible sites, high potential sites (identified in the NHT Comprehensive Management Plans), certified sites, and public use sites.
- Key Takeaways – Had to focus on purpose and what to include. Wanted to focus on publicly facing data. All the fields can be presented to the public. Minimize fields for core and minimize fields for National Trails in the extended core. Another thing, this schema is just a starting point. Local schema fields can be added to the schema. Trail name and the trail number for the local trail name and number are in Core. In the extended there are additional National Trail Designation field to assign NT name. Can see which ones are local and which ones are national and where they overlap.
- Feature level metadata in core and extended allows for more detailed information including edit tracking, creation tracking, or accuracy tracking to ensure data is the most up to date and accurate. Appendix C trail matrix and NHT definitions – provides the NHT definitions regarding NHT1, NHT2, NHT3. Appendix D talks about data sharing for authoritative sources. Data stewardship reference NPS data steward document to provide the workflows and maximize the usefulness of the data. Here you can see the NPS data steward framework. You can download this document from the NPS data hub. Displayed are the data steward roles. This might help with the data management. Make sure everyone is on the same page and who has the authoritative data.
- Next Steps – workgroup will respond to the review comments. We will adjust database based upon the comments. If there are complex changes we'll go out for a 2nd round of review for 2 weeks. Final will be posted to GeoPlatform.gov and advertise to advocacy groups and partners. This is just a starting point and a change log will be used for future

updates to the schema.

- Use Cases – USGS – Using the schema for digital Trails data aggregation.
- Federal Highway Admin - Aggregation of roads and trails as transportation.
- American Trails – National Recreation Trails – Interested in the schema to standardize what their field workers were collecting.
- Right now all of the National Trails have to be downloaded separately. In the future there will be the possibility of downloading all of them at once.
- PNTS/Trust for Public Lands completed GAP analysis of National Trails. They did not use the schema due to National Trails using different schemas. There would have been more analysis if the National Trails used a standardized schema.
- Summary – National trail data schema can be utilized across all agencies and partners to establish a unifying and common trail GIS data structure (local/National Trails)
- Workgroup – Here is a slide for all who have participated in the workgroup.
- Questions – Ben Silvernail – USACE – Ability to adjust domains. We can create abbreviated versions of the domains. Yes you can truncate the domain lists shorter for your needs. There is a suggested naming convention to know what is a local version and which is the national one.
- Everyone encouraged to do the review
- Taylor Willow – Did the workgroup identify crosswalks from schema to implementations of agency FTDS data standards? Does everything in the schema have a direct crosswalk? If scripts are created to roll data into aggregated data that would be useful. Crosswalk was not created but the agency workgroup members know how the data needs to be updated to match schema. Angie – A good idea, but would be fairly difficult. We encourage people to customize and expand at the local level. Doing the aggregation is challenging.

4. Future Meeting Dates & Topics

- a. **April 20, 2021** - USFWS Trail Inventory Project, Katie Lyon, USFWS National Trail Inventory Program Project Manager
- b. **May 18, 2021** - Looking for presenters!
- c. **June 15, 2021** - Looking for presenters!

We always welcome suggestions for additional topics for discussion or presentations. Please contact us with your suggestions using the email below.

NTS GIS Email Address: ntsgis@nps.gov

NTS GIS Network Email List: ntsgis@webmail.itc.nps.gov

NTS GIS Network Website: <http://pnts.org/new/national-trails-system-gis-network/>

NTS GIS Network Mission:

We established the NTS GIS Network as a way to connect the diverse array of National Trails System staff and partners who use GIS systems and products in their work. One of our goals is to facilitate the sharing of information and tools that help us do our jobs more efficiently and innovatively. Because the national trails system is managed as a collaboration of agencies and partner organizations, the NTS GIS Network is open to anyone.