



OpenStreetMap US

Trails, Data + Community

Trails Stewardship Initiative

Maggie Cawley

on behalf of the OSM US
Trails Working Group



Dear OpenStreetMap...

"I oversee visitor use within the backcountry of the parks of the Southeast Utah Group of the National Park Service. As with many other parks and public lands this spring we have seen unprecedented visitation. ...

In a time when land stewards including agency employees are struggling to keep up with the mandate to preserve and protect these areas, we face a seemingly insurmountable challenge when unofficial and false information is spread widely through digital sources. I am not sure if you have any ability to make this happen, but we do feel OpenStreetMaps needs to take some responsibility in supporting and promoting responsible recreation. "

Utah Backcountry Coordinator, National Park Service, June 28 2021




A Second Email

“ I understand the global nature of OSM and that your mission statement and core values do have impacts on your ability to address these issues. From our perspective, there are also concerns that it shouldn't be the responsibility of the NPS using tax payers' resources to manage and monitor the status of OSM data on our lands in order to keep our visitors safe when we already manage, produce, and make available service-wide authoritative datasets of these features within our jurisdiction.” Data Architect National Park Service, August 2021- (A member of the OSM US Government Committee)

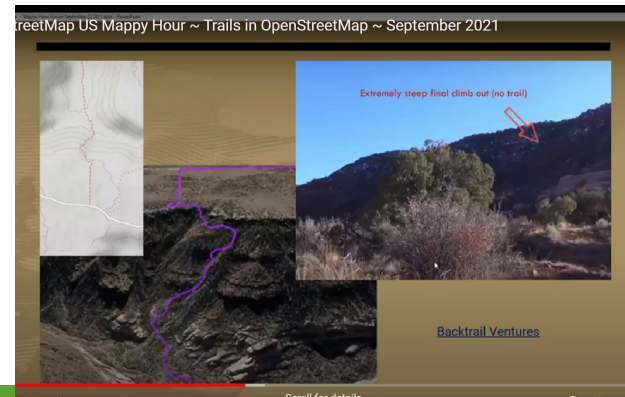
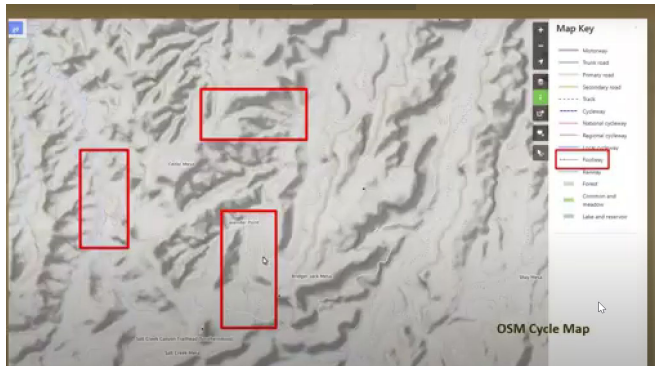
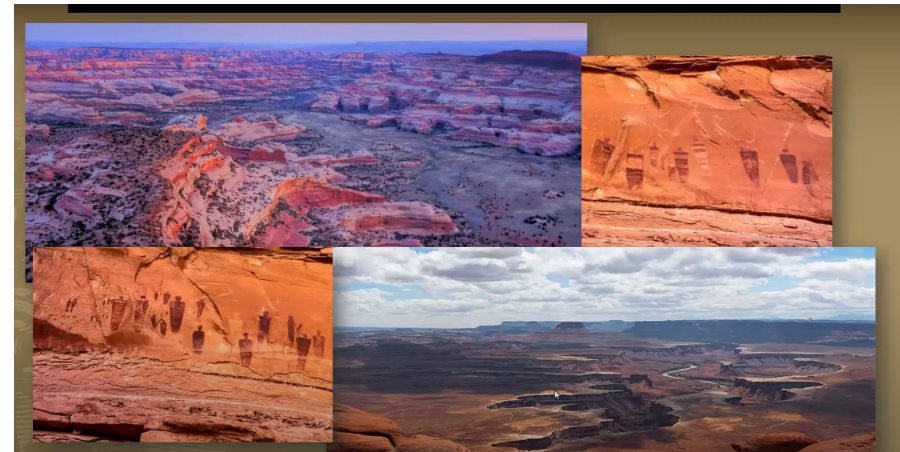
National Park Service
U.S. Department of the Interior

Southeast Utah Group



Canyonlands National Park Digital Trail Data and National Park Resource Protection and Visitor Safety

OpenStreetMap Mappy Hour
September 22, 2021
Keri Nelson, Backcountry Coordinator



The Challenge

- Hikers and other outdoor enthusiasts in the United States have come to rely on mobile applications to navigate our public lands. While this makes the outdoors more accessible, visitors can be led to dangerous or environmentally sensitive areas when these apps can't visually distinguish between official or unofficial, unmaintained, and social trails.
- Many navigation applications amalgamate this trail data from multiple sources and rely heavily on OpenStreetMap data.
- OSM has very sparse data on which trails are official and which aren't, which means these apps aren't able to show that distinction to end users.



Navigation applications are often built on many data sources, including crowdsourced OpenStreetMap data.

More Challenges

- In order for park trails to render in the desired way, they must be accurately tagged so that renderers can decide which trails to show, which trails to not show, and which trails to emphasize or de-emphasize. .
- Even if trails are appropriately tagged, it may still be required to work with the individual developers of these products to achieve the desired user-facing outcomes.
- Even with good data, and good rendering, each application sets its own frequency for how often the map is updated.



The screenshot shows a Wiki page titled "United States/Trail Access Project". The page is part of the OpenStreetMap Wiki, as indicated by the logo in the top left corner. The page content includes a navigation bar with "Page" and "Discussion" tabs, a breadcrumb trail "< United States", and a main text block describing the project as a community effort to ensure responsible mapping collaboration between the OpenStreetMap US mapping community and land managers. The text mentions the project's scope is US public access lands administered by the US Government and other public lands at the state and local level. A "Contents" section is visible, listing 9 items: 1 Background, 2 Nomenclature, 3 Analysis, 4 Plan of action, 5 Recommendations to land managers, 6 Suggested Tagging (with a sub-item 6.1 Additional tags to consider), 7 Suggested rendering and recommendations to data consumers, 8 See also, and 9 External links. A sidebar on the left contains various navigation links such as "Main Page", "The map", "Map Features", "Contributors", "Help", "Blogs", "Shop", "Donations", "Wiki discussion", "Recent changes", "Tools", "What links here", "Related changes", "Special pages", "Printable version", "Permanent link", "Page information", and "Cite this page".

The OSM US Trails Working Group

Convening a diversity of perspectives on trail mapping practices, trail safety, and protecting the environment, this group of stakeholders has been working to address on-the-ground challenges, tagging schemes, authoritative data, and other topics related to mapping trails in OSM. Through these efforts, navigation apps will be able to better display OSM data, helping users make informed decisions while out on trails

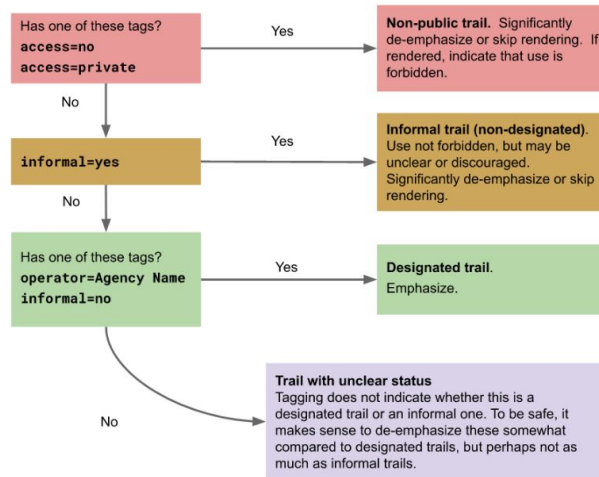
Participation since Dec 2021

- 59 folks invited to each meeting
- ~46% Public participation - community mappers
- ~28% Government: US Forest Service, National Park Service, Fish and Wildlife Service, Bureau of Reclamation, US Geological Survey
- ~26% Private companies & nonprofit organizations

Phase One: September '21 - September '22

- Investigating tagging practices
- Conducting pilot project in Washington
- Assessing app rendering
- Feedback from Land Managers on pilot
- Complete mapping pilot
- Share updated trail renderings with Land Manager group for feedback
- Update process and make changes based on feedback

Potential trail rendering style decision tree



The choice to include informal, non-designated, or non-public trails will depend on a map's purpose and intended audience. Consider best practices for outdoor ethics of mapping when making this decision. If informal, non-designated, or non-public trails are included, designated trails should be emphasized and other types de-emphasized through variations in line weight, scale visibility, symbology, and/or labeling.



Phase Two

- Expand stakeholder group and grow partnerships
- Develop the resources necessary to launch a national campaign including educational and outreach materials.
- Testing on tagging and rendering recommendations
- Development or changes identified to any technical resources or tools

Phase Three

Support a national mapping campaign across the US - one region at a time - while monitoring trail renderers, obtaining feedback from land managers and working with local groups.



Special thanks to the OSM US board members,
the participants in the the trails working group,
& everyone supporting this effort

Discussion - Questions for you

- Are you seeing the same problems?
- What apps are used outside of the US?
- How have you approached trail tagging in your areas?
- Any case studies of collaboration around this elsewhere?

THANK YOU SOTM FIRENZE!

OpenStreetMap US Website: openstreetmap.us/trails

Email: trails@openstreetmap.us

Twitter: [@OpenStreetMapUS](https://twitter.com/OpenStreetMapUS)

Slack: [#trails](https://slack.openstreetmap.us)

