

# NGAC Member Presentations

## Bert Granberg



National Geospatial Advisory Committee  
2 April 2024

# Introduction (1 minute max)

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- Name: *Bert Granberg*
- Role: *Analytics director, WFRC (SLC area metropolitan planning org.)*
- Sector: *Regional government*
- Why did you want to be a part of NGAC?

*I see the great value that map-based information and tools are providing, which is particularly compelling to me in GIS-based support to decision making processes. Accessibility, coordination, investment levels and strategy for geospatial data are critical, but remain underrealized. I hope we can help fix that.*



# Member Perspective (2 minutes max)

- Highlight a project or initiative you are working on that you would like to share with the group:
- Conveying our regional landscape through interactive maps
  - [maps.wfrc.org](https://maps.wfrc.org) (gallery)
  - Ex: Housing Inventory Explorer...
    - Housing types
    - Residential density
    - Buildout & trends over time
    - Proximity to transit and freeways
    - Valuation





WFRC-Area Housing Inventory Explorer (data shown: January 2022) [About this map](#)

**Selection Filters**

County: None

City: None

Center Name: None

Center Type: select center types

Housing Type: select housing types

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**Buffer Filters** use: **Match All** Match Any

TRAX/S-Line: enter a distance (mi)

FrontRunner: enter a distance (mi)

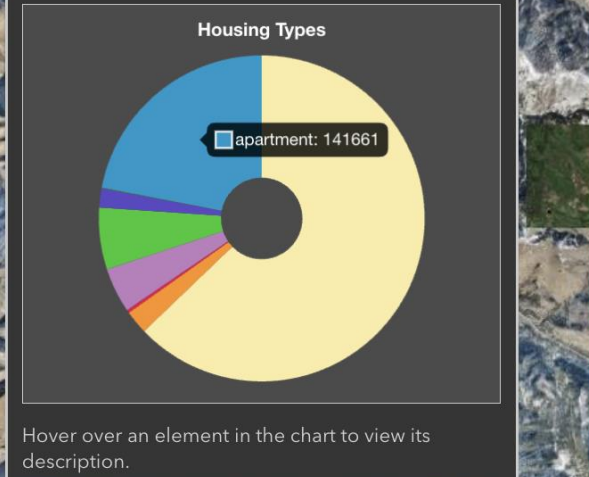
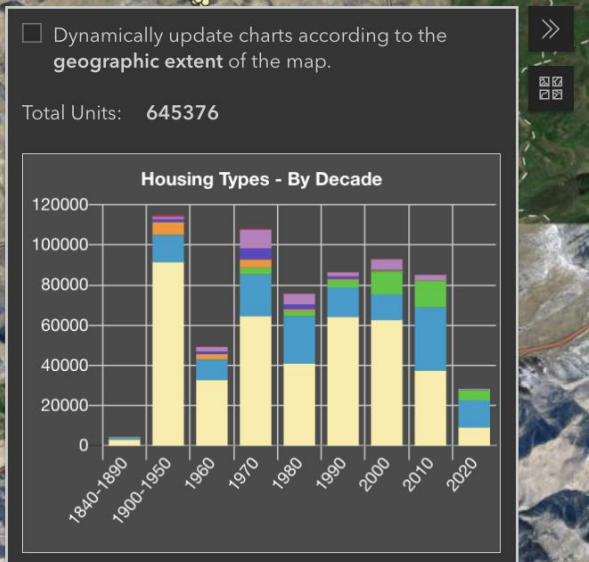
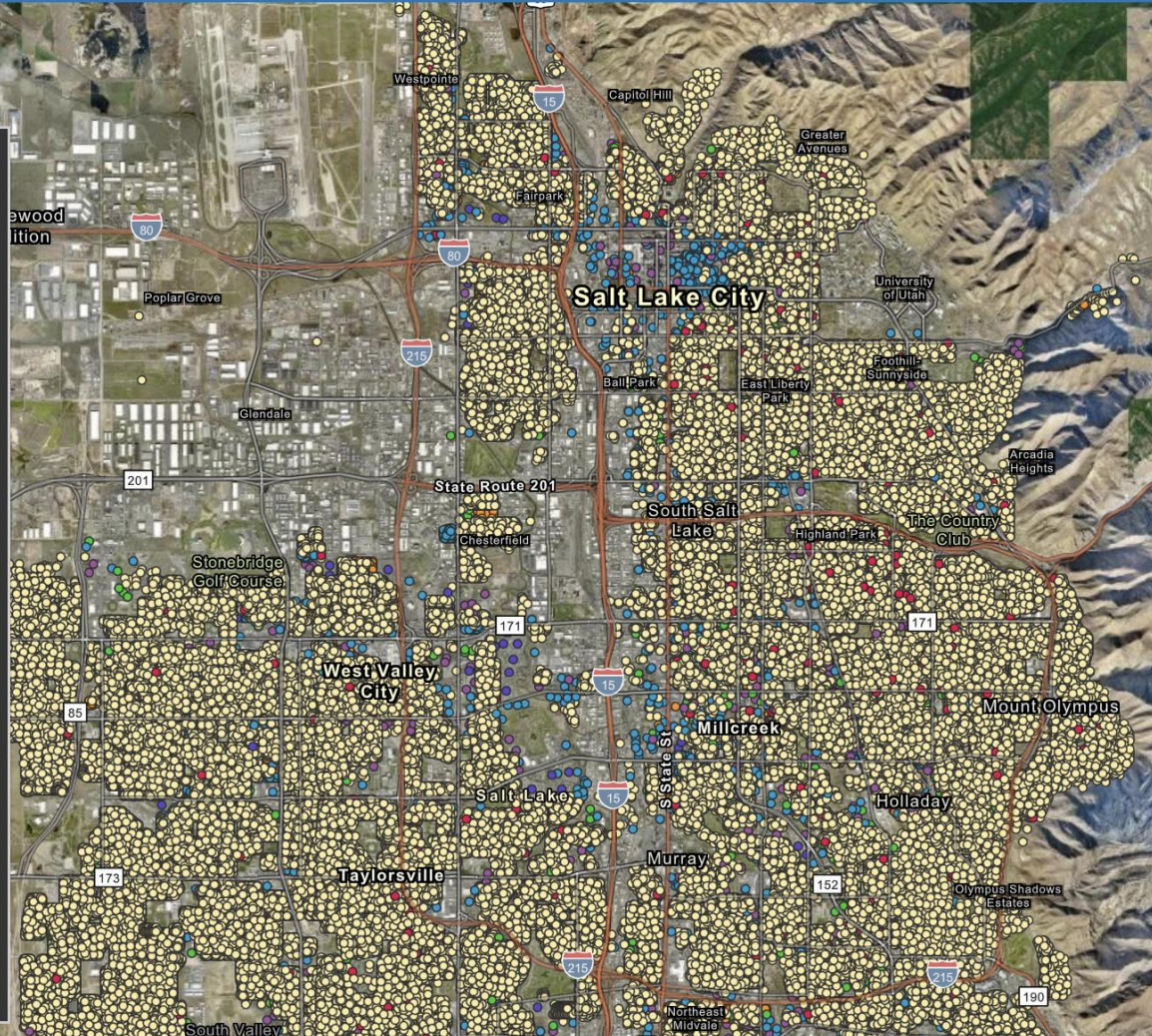
BRT: enter a distance (mi)

Freeway Exit: enter a distance (mi)

Parks: enter a distance (mi)

Trails/TH: enter a distance (mi)

**Clear All Filters**

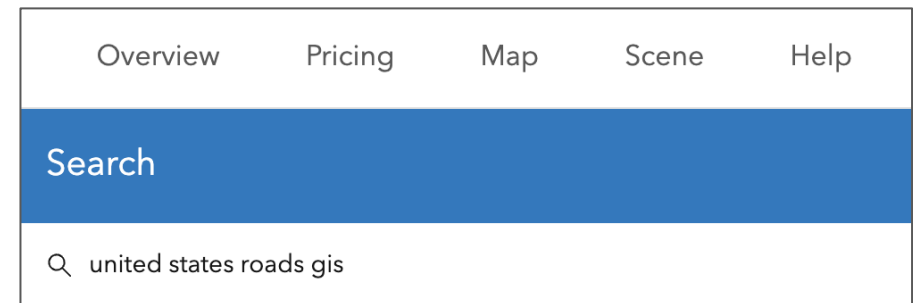
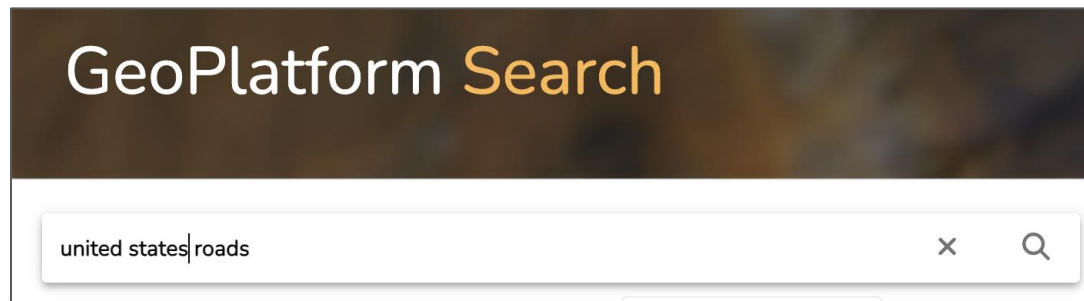
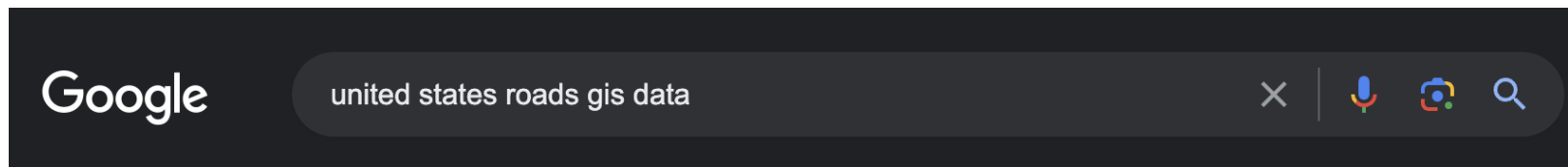




# Advancing the NSDI (2 minutes max)

- Project/initiative to enhance our national geospatial infrastructure with a resulting product or impact that could be realized within 3-5 years:

**Simple Search Optimization:** Enhance the ability/efficiency to discover, explore, & access the *most important, best of breed* geospatial datasets and related resources.



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Thank You! 🦆

# NGAC Member Presentations

## Nadine Alameh



National Geospatial Advisory Committee  
2 April 2024

# Introduction (1 minute max)

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- Name: Nadine Alameh
- Role: Executive Director, Taylor Geospatial Institute
- Sector: Non profit
- Why did you want to be a part of NGAC? I want to help accelerate our path to a sustainable useful national spatial infrastructure; I want to help amplify the voice of geospatial value in government; I want to help solve problems that require gov, industry, academia and non profits to come together



# Member Perspective (2 minutes max)

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- [Highlight a project or initiative you are working on that you would like to share with the group]
  - We will be launching a global food security and geospatial challenge as well as a GeoAI Center of Excellence and will be reaching out to the community for support
- [What is the one thing the FGDC/NGAC could do for your organization/sector that could have the biggest impact?]
  - Secure funding explicitly for geospatial science research
  - Provide a usable UpToDate SDI to be used as part of an open research infrastructure
- [What do you hope to achieve as being part of the NGAC?]
  - Make myself and TGI available to support the NSDI's vision
  - Hear the challenges of government (all levels) to help focus our research and commercialization efforts

# Advancing the NSDI (2 minutes max)

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- Support projects like spacenet to create open training datasets; support projects that lead to the creation of national data layers (beyond the current ones like field boundaries, crop types, etc) => start to pump out information layers rather than data layers
- We bring collaborative research to the table; we also bring support for open science; our role could be to lead initiatives like spacenet that provide assets for everyone, and to run pilot projects that result in open assets for everyone (like field boundaries, etc)

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Thank You! 🦆



# Clio Andris



National Geospatial Advisory Committee  
2 April 2024

## Introduction (1 minute max)

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- Name: Clio Andris
- Role: *Subcommittee Chair of Standards and Data Access*
- Sector: Academia
- Why did you want to be a part of NGAC?

My advisor, Dr. David Cowen, played a big role in the advisory committee, as did my mentors Dr. Sarah Battersby and Dr. May Yuan, and I was excited to join.

# Member Perspective (2 minutes max)

I will document **issues** with **accessing** and using public geospatial data, give **recommendations** for **improvement**, and provide **future ideas**.

I'm here to advocate for the **average user** who is trying to find and use data under pressure.

**Electric Vehicle Population Data** 4207 recent views  
*State of Washington* — This dataset shows the Battery Electric Vehicles (BEVs) and Plug-in Hybrid Electric Vehicles (PHEVs) that are currently registered through Washington State Department...

CSV RDF JSON XML

**Crime Data from 2020 to Present** 3112 recent views  
*City of Los Angeles* — Starting on March 7th, 2024, the Los Angeles Police Department (LAPD) will adopt a new Records Management System for reporting crimes and arrests. This new system is...

CSV RDF JSON XML

**FDIC Failed Bank List** 2565 recent views  
*Federal Deposit Insurance Corporation* — The FDIC is often appointed as receiver for failed banks. This list includes banks which have failed since October 1, 2000.

CSV HTML





# Advancing the NSDI (2 minutes max)

## CASE EXAMPLE: FIPS CODES

A user is trying to attach demographic data (downloaded from the U.S. Census website) to a TIGER-line shapefile.

The geographic identifier/FIPS code in the TIGER-line file is “360610001001000”. (Which is also what we teach...)

When the data table is downloaded, the Census geographic identifier column for block-level is: “1000000US360610001001000”.

Users can't table join this, and not all users know how to parse the data, and they shouldn't have to.

We recommend that FIPS codes be uniformly implemented across data products.

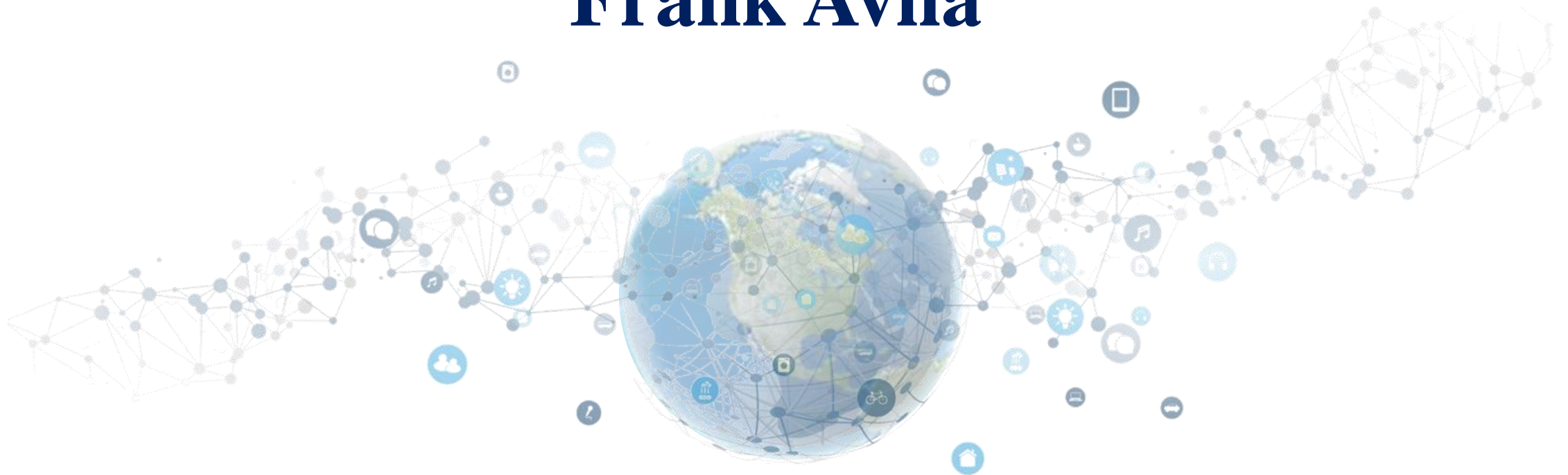
GEO_ID
Geography
1000000US360610001001000
1000000US360610001001001
1000000US360610002010001
1000000US360610002011000

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Thank You! 🦆

# NGAC Member Presentations

## Frank Avila



National Geospatial Advisory Committee  
2 April 2024



## Introduction (1 minute max)

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- Name: Frank Avila
- Role: Deputy Director/NGA Commercial Operations (SC)
- Sector: IC/DOD
- Why did you want to be a part of NGAC?
- To increase awareness of activities of common interest within the IC and DoD communities and collaboration with the Federal and Civil sector.
- Support the National Land Imaging Program

## Member Perspective (2 minutes max)

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- [Highlight a project or initiative you are working on that you would like to share with the group]
- NGA, in support of the NSG, is leading the procurement of commercial analytical services to support mission requirements across IC/DoD/Federal communities.
- Leading continuous market research, assessments
- Established a structured process to gather community requirements that can be supported by commercial solutions

# Advancing the NSDI (2 minutes max)

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- [Name and briefly describe (in a sentence or two) one projects/initiatives to enhance our national geospatial infrastructure with a resulting product or impact that could be realized within 3-5 years.]
- Help ensure that geospatial standards established within the IC/DoD community are aligned with similar standards within NSDI.
- [What might your sector's role and responsibility be in achieving the objective(s) of your proposed project/initiative?]
- Ensuring relevant components within represented sector are aware and tracking standards-related activities.



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Thank You! 🦆

# NGAC Member Presentations

## Chad Baker



National Geospatial Advisory Committee  
2 April 2024

# Introduction

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- Name: Chad Baker
- Role: Geospatial Data Officer
- Sector: State Government (Transportation)
- Why did you want to be a part of NGAC?
  - Advocate for improved quality, findability, and accessibility of national geospatial datasets
  - Advocate for development and access to open-source GIS metadata tools

# Member Perspective

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- California Road Sharing (CaRS)
  - Single authoritative, quality statewide road centerline dataset
  - Contributions by state (state routes) and all counties (local roads)
  - Compliant with NG911 requirements
  - Supports a routable network
  - Supports addressing
  - Feed back into a national road network



# Advancing the NSDI

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(Transportation) Develop national linear referenced road network of all public roads in partnership with the Federal Highway Administration (Ref: All Roads Network of Linear Referenced Data aka ARNOLD) that supports safety analysis and Model Inventory of Roadway Elements requirements.

- Be a leader at the state level and with other state DOTs in setting standards and in its efficient creation and maintenance
- Partner on discussions to enhance the network to support addressing, computer aided dispatch, NG911, and safety analysis

BONUS ITEMS: (Cadastral) National state/federal parcel fabric and (Geodetic Control) nationally supported free to use active control network

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Thank You! 🦆

# NGAC Member Presentations

## Byron Bluehorse



National Geospatial Advisory Committee  
2 April 2024

## Introduction (1 minute max)

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- Name: Byron Bluehorse
- Role: Tribal Representative
- Sector: Tribal Government
- Why did you want to be a part of NGAC?

National Tribal Geographic Information Support Center  
To support Tribal Nations

# Member Perspective (2 minutes max)

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- [Highlight a project or initiative you are working on that you would like to share with the group]
  - Planning
    - Long Range Transportation Plan
    - Comprehensive Plan
    - Airport Improvement Program
    - LiDAR



## Advancing the NSDI (2 minutes max)

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- [Name and briefly describe (in a sentence or two) one projects/initiatives to enhance our national geospatial infrastructure with a resulting product or impact that could be realized within 3-5 years.]
  - Infrastructure and Planning
- [What might your sector's role and responsibility be in achieving the objective(s) of your proposed project/initiative?].

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Thank You! 🦆

# NGAC Member Presentations

## Jack Dangermond



National Geospatial Advisory Committee  
2 April 2024

# Introduction (1 minute max)

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- Name: Jack Dangermond
- Role: President, Esri
- Sector: Private
- Why did you want to be a part of NGAC?
- I believe that maps, geography and the geographic approach have the power to make the world a better place and the US government can and should play a leading role in making this a reality. The NGAC should drive that vision in the US and I want to help by sharing my perspective not just as a private sector representative but the bigger picture and insights I gain in my unique position to engage with hundreds of thousands of organizations from all levels of government, NGOs, utilities, businesses and academia around the globe. This gives me the privilege to see what people want and need, this knowledge can help NGAC deliver an NSDI to meet those demands.

## Member Perspective (2 minutes max)

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- Highlight a project or initiative you are working on

The Living Atlas curates, reliable, ready to use content and makes it easily accessible – ready to help solve real problems! It has been a successful testbed for what is possible for an NSDI, many organizations around the world have benefited from the lessons learned in developing this resource. This has been co-developed with our users, learning from their needs and processes, implementing user centered design principals, it has been a community collaborative effort. All of the good practices that have been learned here can be applied to an NSDI, these learnings cover not just the technical aspect but also data governance and applications of the data and tools.

# Advancing the NSDI (2 minutes max)

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- Project to enhance our national geospatial infrastructure ?
  - We need to act with urgency and build a modern, operational **National Geospatial Infrastructure** within 1 year, leveraging existing resources. The technology exists to do this quickly, the resulting platform would provide a sound infrastructure to support broad GIS operations and new pilots. The demand and expectations are growing, and the US is falling behind, but CAN advance rapidly with swift action using the resources available TODAY!
  - Building the NSDI with existing technology, populating it with existing data resources is the immediate easy part, the FGDC should act on that quickly so then can focus more attention on the bigger challenges of reaching new audiences and addressing digital equity, filling critical data content and capacity gaps. Ensuring that the NSDI benefits everyone, everywhere.
- your sector's role in achieving the project objective?
  - Our business is technology innovation, our mission is to support our users to help them solve problems – we can encourage FGDC to move quickly, provide technical guidance and support, help them connect with business partners and user community to build support, awareness and adoption in US and promote the success globally.

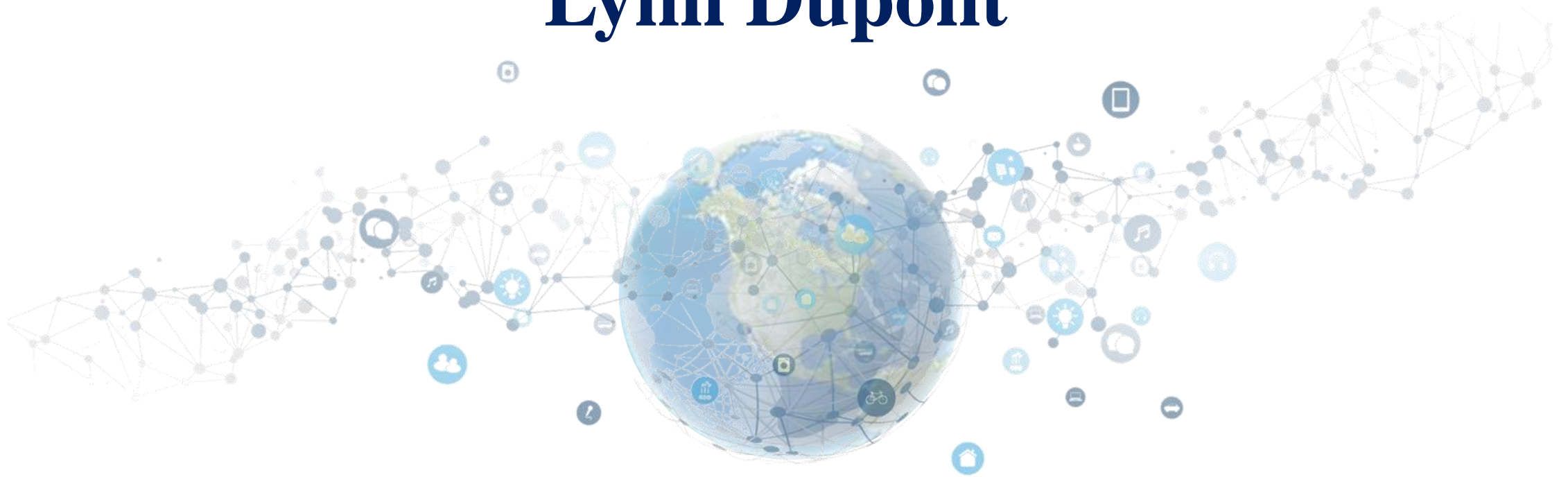


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Thank You! 🦆

# NGAC Member Presentations

## Lynn Dupont



National Geospatial Advisory Committee  
2 April 2024

# Introduction (1 minute max)

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- Name: *Lynn Dupont*
- Role: *Metropolitan Planning Organization (MPO) GIS Manager,*  
*(8 counties surrounding New Orleans, LA)*
- Sector: *Regional*
- Why did you want to be a part of NGAC?

*After decades of partnering with state and federal agencies, coordinating geospatial data sets, and handling contracts for data that can be useful at multiple levels of government, I had some questions & some insights. I am interested in federal mechanisms behind contracting and managing geospatial data.*

# Member Perspective (2 minutes max)

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- What do you hope to achieve as being part of the NGAC?

1. *I hope to help improve coordination among agencies contracting for the costliest geospatial data to achieve datasets serving multiple levels of government. Examples: imagery and lidar. Higher resolution data can always be “degraded” for those who do not need the higher res. Higher costs to acquire higher resolution data, can be offset for the nation by purchasing one set with multiple resolution outputs through cost share. The private sector is already coordinating some of these initiatives and including some non-federal partners to “buy-up” resolution prior to acquiring federal data. Formalizing and promoting these potential cost sharing opportunities at sub-state levels requires federal agency (through the states) support with educational outreach. Most often issues are with 1) the time delay in federal dataset distribution and/or 2) the inability to capture USDA NAIP imagery in coordination with USGS/NOAA/NRCS lidar that results in local agencies purchasing redundant data sets.*

- *Therefore, USGS needs more QA/QC funding and partnership funding for coordination. How do we do that?*
- *In my experience, sub-state federal funding partnerships are ad hoc based upon historic relationships. Let’s formalize the outreach to potential partners with a coordinated NSDI message, as well as funding opportunities.*

2. *As NSDI develops, regional NGAC representatives can aid in determining which layers would be more prudent to build from the local level up (parcels, addresses, structures) with federal agency oversight and support. The heaviest cost burden on many datasets would remain at the local level, but federal agencies need to be involved in the process and clearly communicate needs and standards from the NSDI emphasizing the benefits to sub-state agencies.*

# Advancing the NSDI (1 minute max)

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- Name and briefly describe one projects/initiatives to enhance our national geospatial infrastructure with a resulting product or impact that could be realized within 3-5 years.

*Communicate the NSDI simply – 3-5 years to figure out how.*

*Define the benefits and cost-sharing opportunities of using NSDI below the state level - Most want data that meets federal standards and can roll up into a national dataset.*

- What might your sector's role and responsibility be in achieving the objective(s) of your proposed project/initiative?

*Working on state SDI interactions and detailing state SDI responsibilities for geospatial layers.*

*Explaining to other sub-state agencies their potential role and benefits as partners of state/federal geospatial projects at conferences, workshops etc. while promoting state SDI and NSDI.*

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Thank You! 🦆



# NGAC Member Presentations

## Holli Howard



National Geospatial Advisory Committee  
2 April 2024

# Introduction

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- Name: Holli Howard
- Role: Google Maps
- Sector: Private
- Why did you want to be a part of NGAC?
  - ❑ **Learn** from this diverse group of experts to maintain awareness of current trends and initiatives
  - ❑ Opportunity to **contribute** and increase collaboration between public and private sector

# What do you hope to achieve as being part of the NGAC?

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- ◇ Enhanced understanding of government needs to support PPP and our collective stakeholders
- ◇ Build collaborative relationships with experts in the field
- ◇ Support innovation and drive progress through the Standards and Data Access committee
- ◇ Professionally and personally, these collaborations can be quite rewarding

# Advancing the NSDI - Resulting Product to be realized within 5 years

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Continue to strive for

## **A Centralized (Hub, Commons) for Standardized Geospatial Data:**

- ◇ Provide a single, trusted source of high-quality targeted (roll out by theme) geospatial data from the US government and associated partners, formatted to consistent standards for ease of use.
- ◇ A coordinated approach to the hierarchy of counties, states and national agencies to build, share and maintain national geospatial data for core data themes. (further develop NAD and roads)

- Not a clearinghouse - I like the word platform but maybe rebranding is needed
- Clear standards and interoperability
- Agile development and built in flexibility
- Strong governance and User community
- Guaranteed funding (maintenance/buy-in)

# How can private sector support this initiative:

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## ◇ **Data Sharing**

- Data sharing opportunities, data discoverability and partnerships

## ◇ **Promote Data Standards:**

- Active participation, Use Case Studies, Highlight Success Stories

## ◇ **Tools and Technology:**

- Agile development, expertise, integrate into APIs and SDKs

## ◇ **Education and Outreach:**

- Public Awareness, Training and Resources

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# Thank You!



# NGAC Member Presentations

## Leslie Jones, Ph.D.



National Geospatial Advisory Committee  
2 April 2024

## Introduction (1 minute max)

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- Name: *Leslie Jones, Ph.D.*
- Role: *Geospatial Information Officer, State of Alaska*
- Sector: *State Government*
- Why did you want to be a part of NGAC?
  - ✓ Represent state's interest in building the NSDI.
  - ✓ Represent OCONUS (Outside the Continental U.S.) state's interests on national policy and programs.

# Member Perspective (2 minutes max)

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- [What is the one thing the FGDC/NGAC could do for your organization/sector that could have the biggest impact?]
  - POLICY that will support an NSDI governance framework
  - Improved POLICY and FUNDING for gaps in critical and foundational data themes (i.e., parcels, addressing)
  - STANDARDS to enable data integration and interoperability between federal, state, and local gov
- [Highlight a project or initiative you are working on that you would like to share with the group]
  - Enhancing State SDIs with Federal data (USDOT, AK, IN, NC, ESRI) – pipelining federal data to State SDIs

# Advancing the NSDI (2 minutes max)

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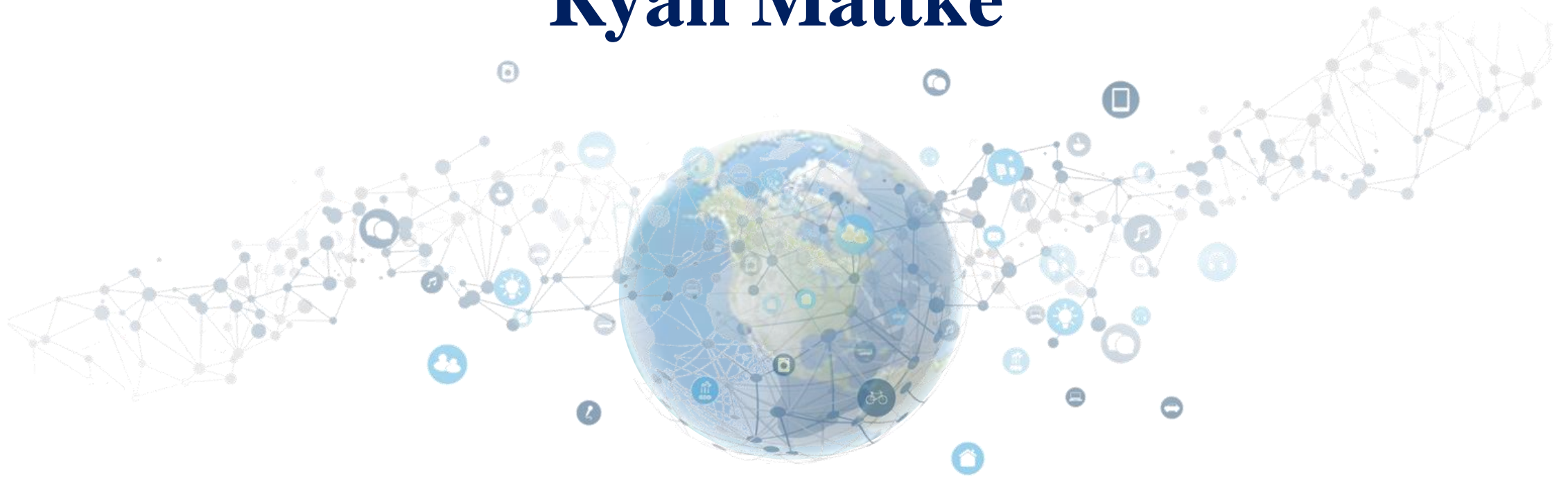
- [Describe a project/initiative to enhance our national geospatial infrastructure with a resulting product or impact that could be realized within 3-5 years.]
  - P4 partnerships to build a National Parcel and Address Database – leverage all sectors
- [What might your sector's role and responsibility be in achieving the objective(s) of your proposed project/initiative?]
  - States would serve as: (1) connectors of data sources - trusted relationships; (2) advisors of data quality and data gaps; (3) data providers; and (4) aggregators in some cases where they have existing pipelines and programs.

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Thank You! 🦆

# NGAC Member Presentations

## Ryan Mattke



National Geospatial Advisory Committee  
2 April 2024

# Introduction (1 minute max)

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- Name: Ryan Mattke
- Role: Map & Geospatial Information Librarian – Minnesota
- Sector: Academic
- Why did you want to be a part of NGAC?

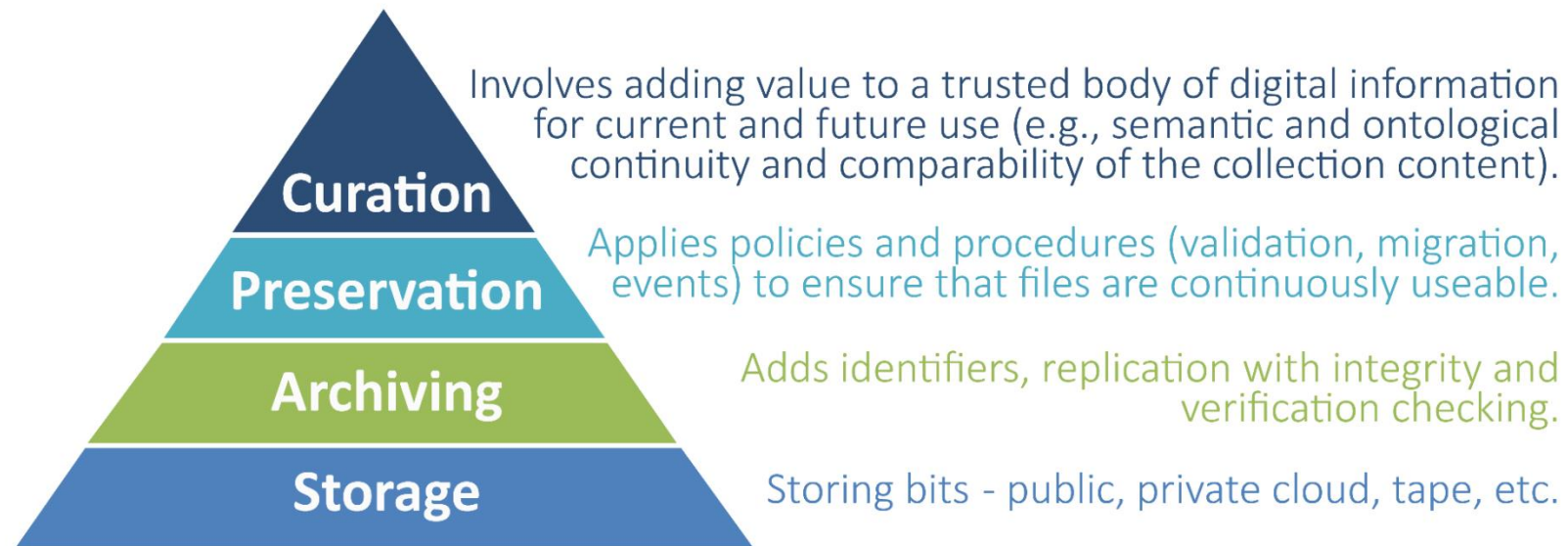


# Member Perspective (2 minutes max)

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## Storing, Archiving, Preserving, and Curating Geospatial Data

### Digital Stewardship Pyramid



# Advancing the NSDI (2 minutes max)

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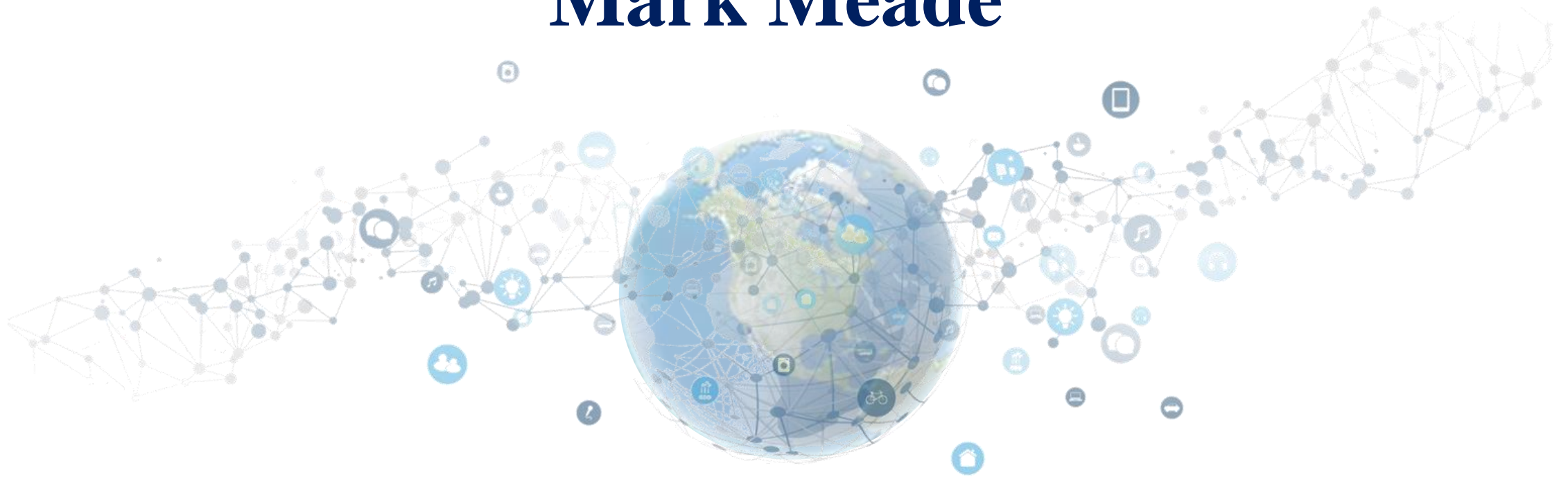
- Federal Grants Geodata Repository
- Significant experience in (geo)data discovery, access, and archiving technologies and platforms.

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Thank You! 🦆

# NGAC Member Presentations

## Mark Meade



National Geospatial Advisory Committee  
2 April 2024

## Introduction (1 minute max)

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- Name: Mark Meade
- Role:
- Sector: Private
- I wanted to be part of NGAC as I have been very proud to be part of the geospatial profession and am excited about its importance in our future. I am happy to use my professional experience from the last 40 years to support NGAC as it promotes and advises on geospatial matters.

## Member Perspective (2 minutes max)

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- More than anything, ensure that geospatial data and state-of-the-art tools are known and utilized efficiently to plan, track, and analyze challenges of our nation where geospatial is integral to the solution.

## Advancing the NSDI (2 minutes max)

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- The bipartisan infrastructure legislation that became law two years ago funded the NOAA Water Center with \$500M in funding to improve flood forecasting in areas susceptible to inundation. They need better surface and subsurface modeling to achieve goals.
- We are currently working on the Ozarks project to collect topobathymetric data for this project to provide highly accurate subsurface data for modeling.



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Thank You! 🦆

# NGAC Member Presentations

## Curtis Pulford



National Geospatial Advisory Committee  
2 April 2024

## Introduction (1 minute max)

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- Name: Curtis Pulford
- Role: Member
- Sector: Local Government
- Why did you want to be a part of NGAC?

To work for Local Government content and involvement within FGDC initiatives and to help my city and sector better understand those initiatives.

# Member Perspective (2 minutes max)

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The one thing the FGDC/NGAC could do for the Local Sector that could have the biggest impact?

- Facilitating Standards, Crosswalks, and Workflows that would enable creation of the regional data desired by local jurisdictions and citizens.
  - Parcels/Land Use/Zoning – for common community and citizen use/understanding across jurisdictions
  - Centerlines w/local roads – aligned with NAD standards
  - Buildings w/z values – for planning and situational awareness/emergency response
  - Full national implementation of NG 9-1-1

# Advancing the NSDI (2 minutes max)

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Local sector's role and responsibility be in achieving the objective(s) of your proposed project/initiative?

- Providing content
- Promoting the Standards
- Automating Crosswalk uploads
- Sharing with State Repository and/or Geospatial Platform

NOTE: FGDC must obtain funding and staffing to (re)assume a level of leadership. Without that, nothing else is possible.

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Thank You! 🦆

# NGAC Member Presentations

## Breece Robertson



National Geospatial Advisory Committee  
2 April 2024



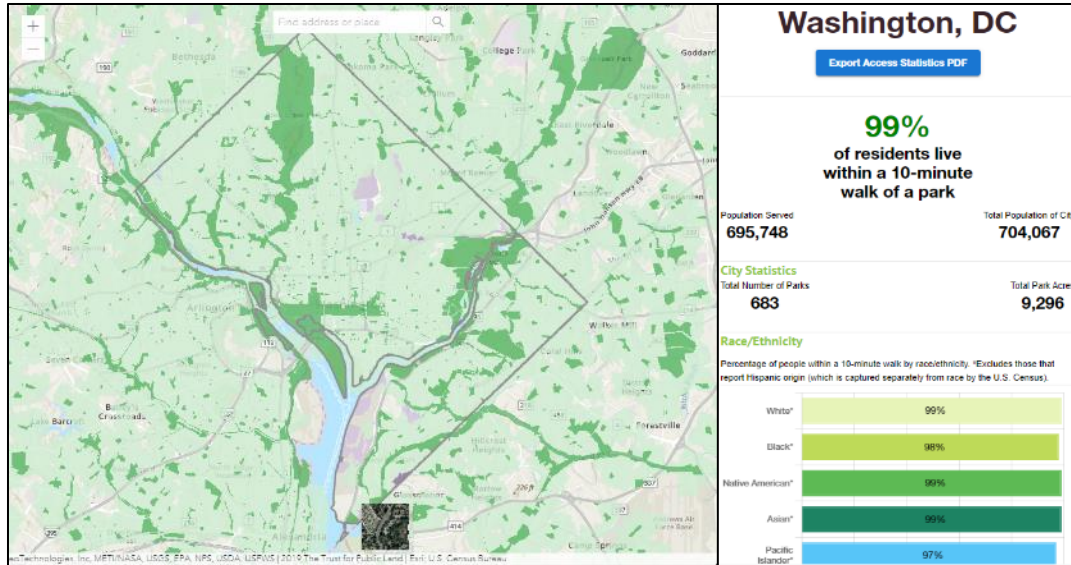
## Introduction (1 minute max)

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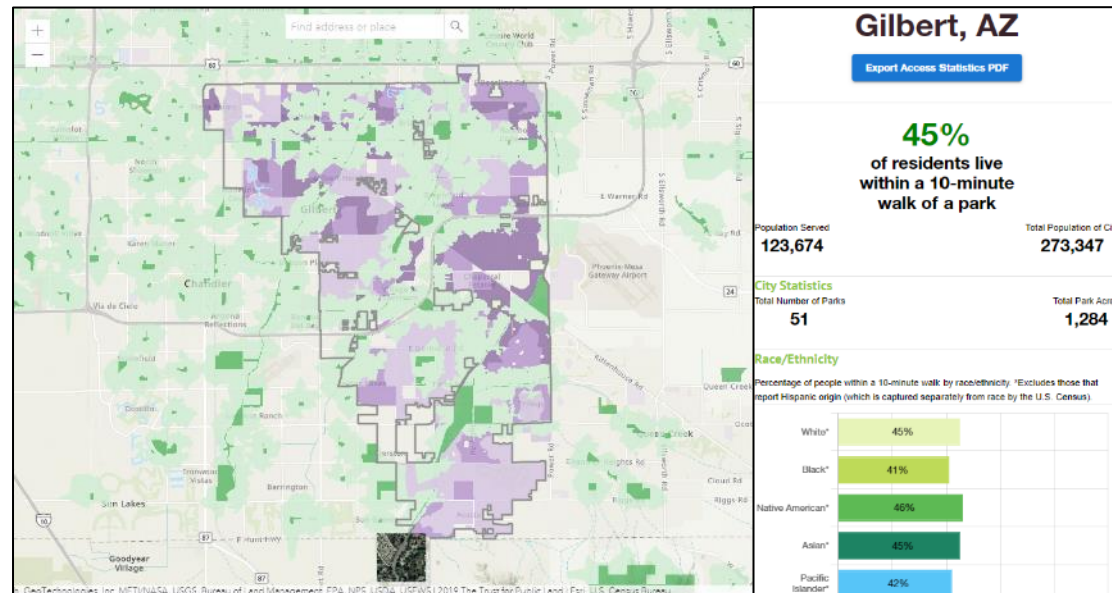
- Name: Breece Robertson
- Role: Advisory and Executive Leader
- Sector: Conservation/NGOs
- Why did you want to be a part of NGAC?

To bring the voices, viewpoints and needs of the NGO community to the data-related topics that the committee engages with and to raise new topics as appropriate, including conservation, equity and environmental justice.

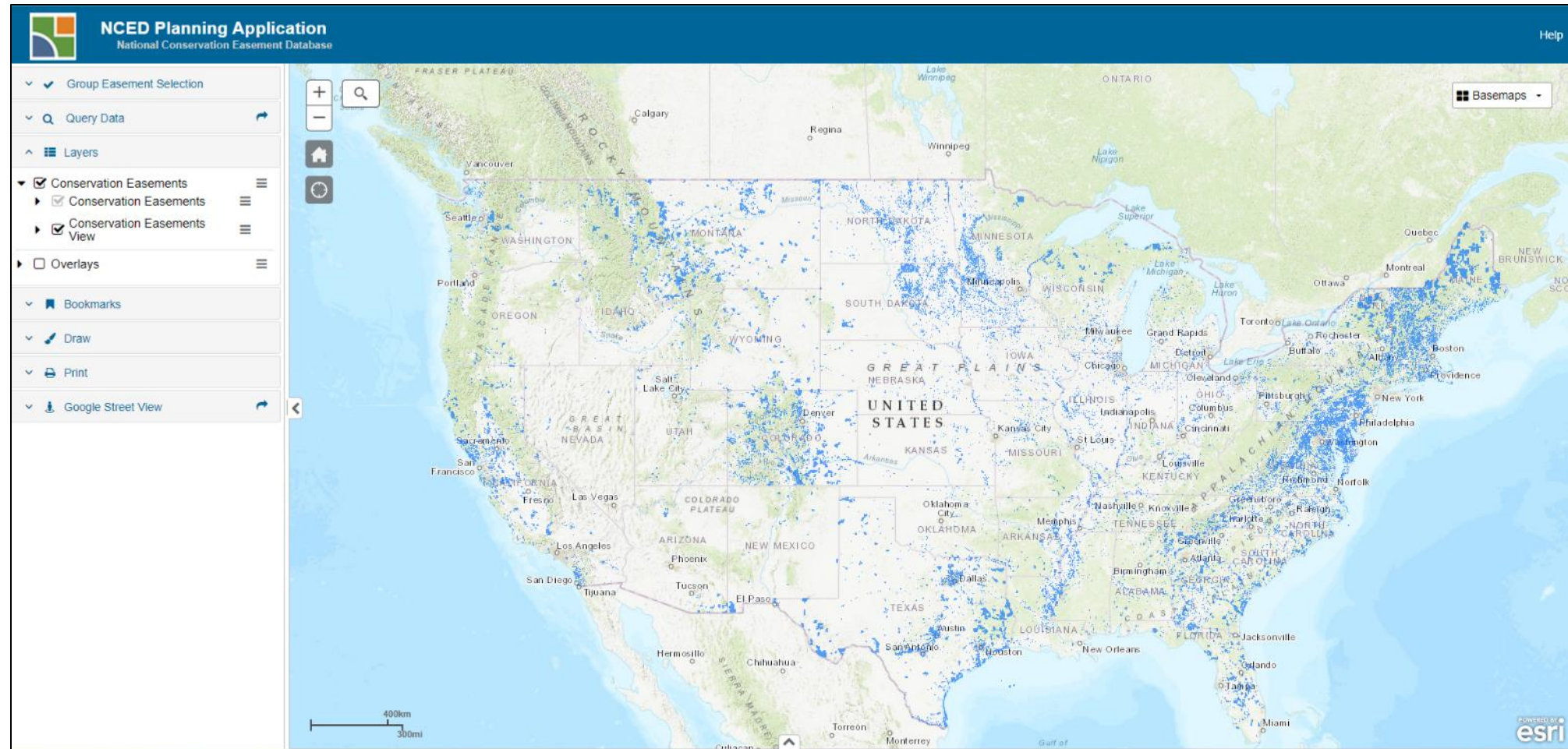
# National Data Initiatives: The ParkScore® Index



- Park With Public Access
  - 10-Minute Walk Service Area
  - Priority Areas For New Parks
- Very High
  - High
  - Moderate

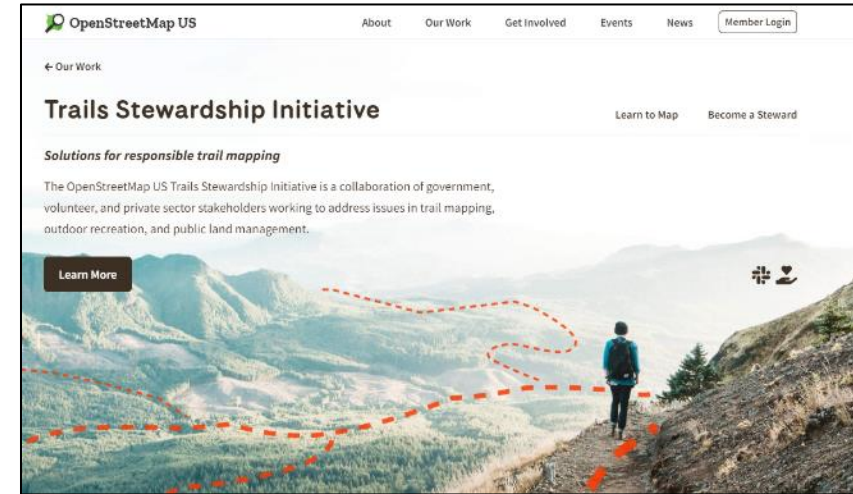
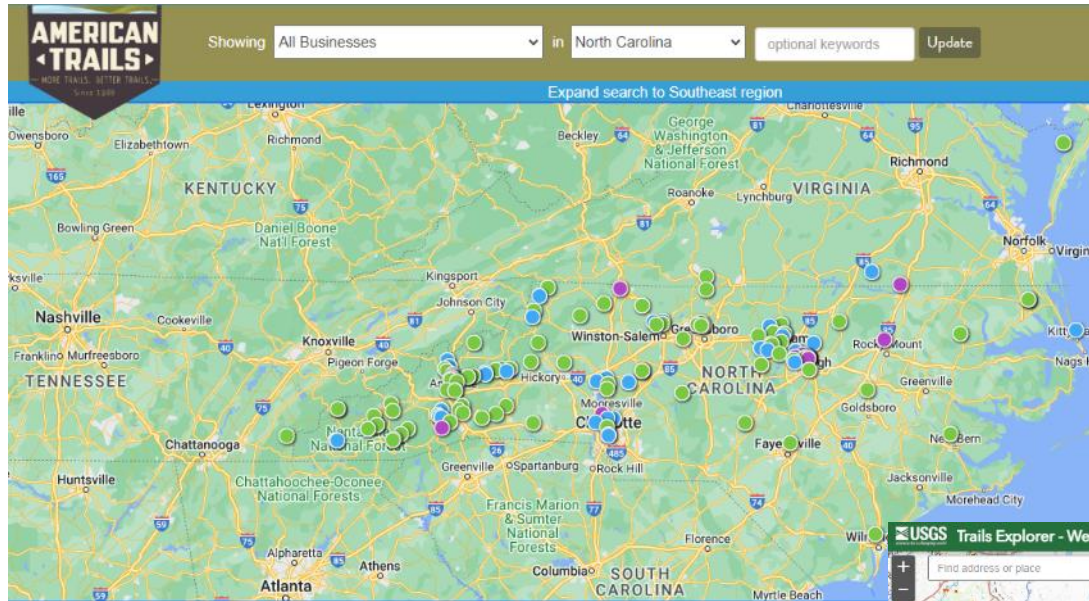


# National Conservation Easement Database



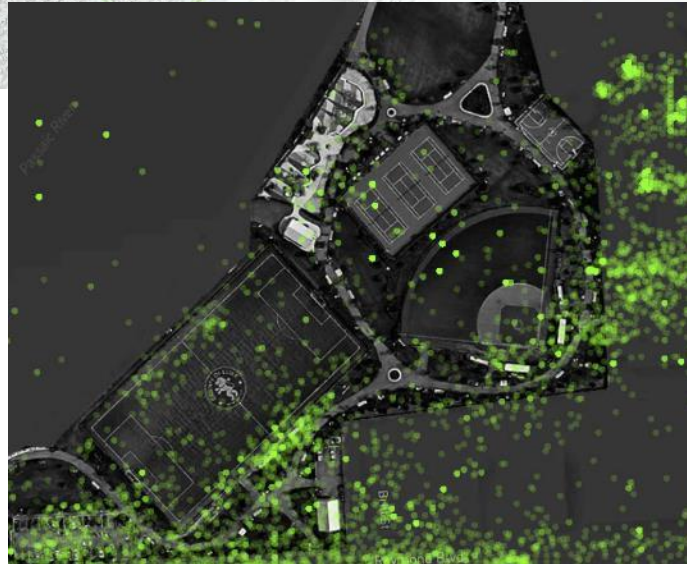
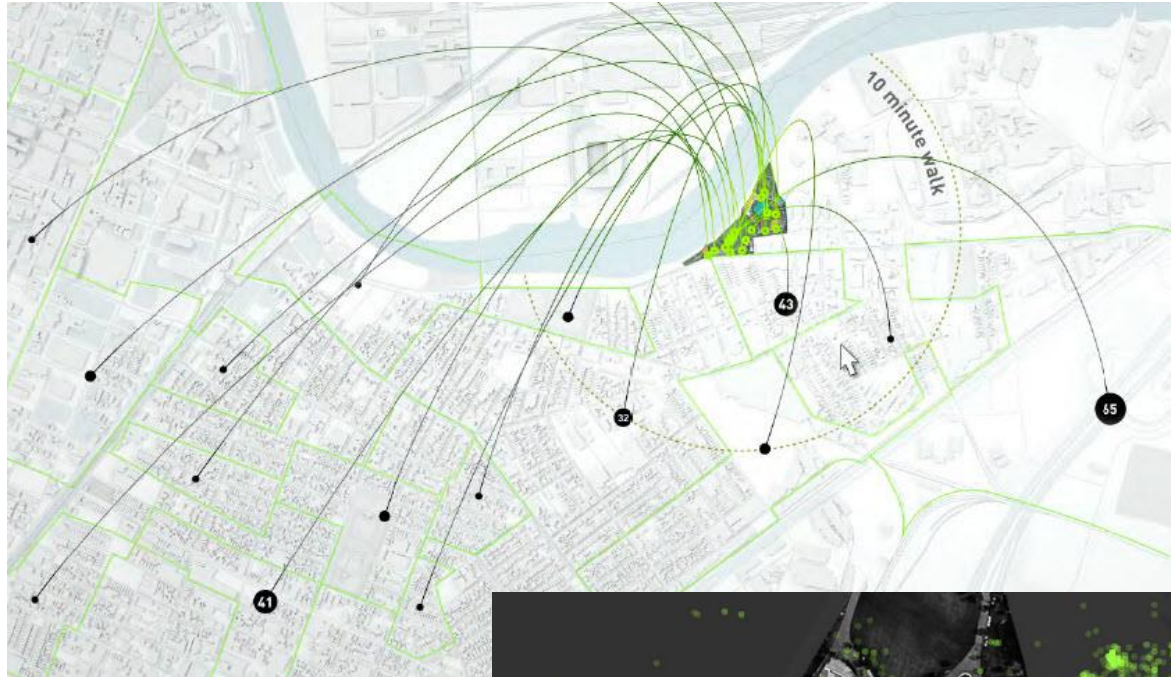


# Trails in the U.S.

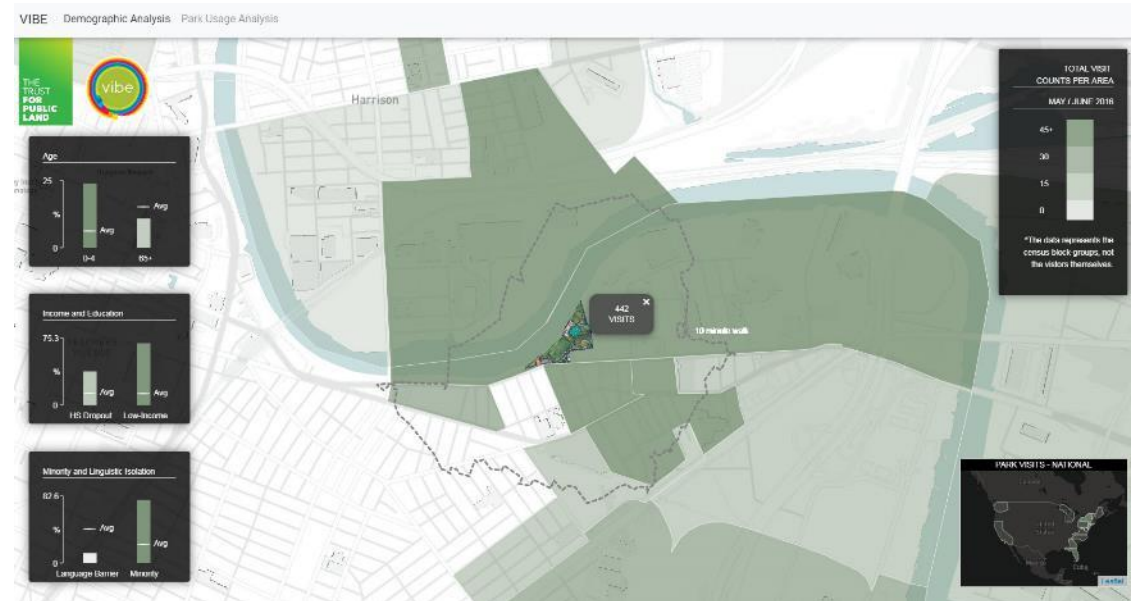




# New Novel Data Sources



## Anonymized Mobility Data



# Advancing the NSDI (2 minutes max)

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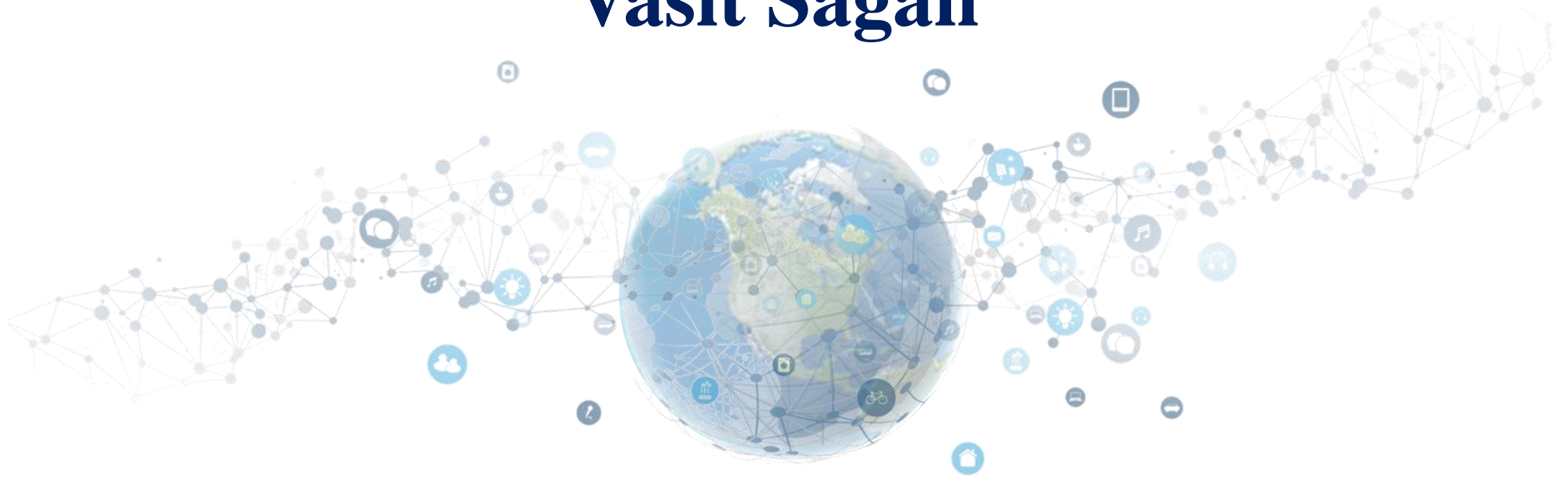
- Scan sectors for data products that are critical and fill important gaps but are not fully interoperable or recognized as authoritative. Not adequately funded to maintain currency.
- Create and implement renewed outreach to diverse NGOs to deliver educational webinars and open office hours focused on the NSDI mission, goals & objectives. This will build capacity and provide technical assistance for data development, integration and uses.
- The NGO community can play a role in awareness building, sharing of knowledge, developing new partnerships and identifying POCs or product and/or data integration to fill gaps in already existing products and data platforms.
- Support joint fundraising and policy support for partnerships and collaborations.

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Thank You! 🦆

# NGAC Member Presentations

## Vasit Sagan



National Geospatial Advisory Council  
2 April 2024



## Introduction (1 minute max)

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- Name: Vasit Sagan
- Role: Professor, Associate Vice President for Geospatial Science at Saint Louis University, TGI's Chief Scientist for Food Security & Digital Agriculture
- Sector: Academia
- As a geospatial scientist, I have life-long passion for geospatial science. I view NGAC as an organization where I can use my passion for field building, shaping geospatial policies and advancing national data infrastructure.

## Member Perspective (2 minutes max)

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- Developing global InSAR solutions for change detection with enhanced regional calibration, **\$1M**, NGA,
- I would like to contribute NGAC play a major role on geospatial field building, and increasing funding for geospatial.
  - For example, promoting creation of academic departments in geospatial at nations universities and colleges
  - NSF creating Geospatial Science directorate

# Advancing the NSDI (2 minutes max)

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- Projects/Initiatives suggested to advance NSDI:
  - Create policies and incentives to make cloud technology – computing, analytics, and data are available to everybody through easy access to information
  - Landsat data usage and standards demonstrated by example
  - Creating incentives to establish machine learning ready, labeled geospatial data
- Academia can play an important role by 1) training the talent we need to not just to create the infrastructure, but also advance and maintain for decades; 2) Cutting-edge interdisciplinary research that create futuristic solutions and technology like quantum sensing.

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Thank You! 🦆

# NGAC Member Presentations

## Kathleen Stewart



National Geospatial Advisory Committee  
2 April 2024

## Introduction (1 minute max)

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- Name: Kathleen Stewart
- Role: Professor, University of Maryland
- Sector: Academic
- Why did you want to be a part of NGAC?

I am interested in learning about the latest topics of interest for Federal and national geospatial programs to gain a better understanding of opportunities for academic programs with these programs and to be able to bring the knowledge gained into our education programs at all levels.

## Member Perspective (2 minutes max)

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- What do you hope to achieve as being part of the NGAC?

Academics are a major user group of federal geospatial data and building stronger linkages between academia and federal geospatial programs would benefit both groups. We are a large user community and understanding our interests and needs could help shape what the federal programs are planning or developing regarding data.

Accessing geospatial data from federal agencies and programs is sometimes challenging with some data being easy to access and other data difficult to source and so discussion on NSDI or data access can improve the experience for academics.

The breadth of topics discussed at NGAC meetings is very helpful for learning what is going on regarding all things geospatial in the federal government and can impact our curricular activities.

# Advancing the NSDI (2 minutes max)

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- [Name and briefly describe (in a sentence or two) one projects/initiatives to enhance our national geospatial infrastructure with a resulting product or impact that could be realized within 3-5 years.]
  - **Build AI into NSDI** – what are AI opportunities for NSDI (knowledge graphs...)– rather than long lists of datasets have an AI serve the data that users are interested in
  - **Expanding the kinds of geospatial data** that agencies make available to e.g., **dynamic**, time-varying data such as moving objects data (vehicles, vessels, ...), **digital twins**, would be useful for research purposes. This is starting to happen...
  - Understanding NSDI from a **multi-granular perspective** could be helpful for users, e.g., county-level transportation data vs. trip-level data. Often data is approached as data on  $X$ , but considering data from a granularity perspective is also helpful for users.
- [What might your sector's role and responsibility be in achieving the objective(s) of your proposed project/initiative?]
  - Academics can **develop/implement how AI can be used** in an NSDI context



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Thank You! 🦆

# NGAC Member Presentations

## Phil Thiel



National Geospatial Advisory Committee  
2 April 2024

## Introduction (1 minute max)

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- Name: Phil Thiel
- Role: AEG Executive
- Sector: Private Sector
- Why did you want to be a part of NGAC?

Answer: Change what can be changed to improve the national geospatial community.

# Member Perspective (2 minutes max)

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## The Alaska Mapping Project

We collectively developed;

- common set of objectives,
- common requirements (standards),
- singular implementation plan,
- collectively funded the implementation,

That's unbelievable when you consider the team includes multiple federal, state and local government agencies working with multiple private sector firms. Thus far, this project has implemented over \$100M in geospatial data for AK.

Or perhaps 3DEP...they have both been **GREAT!**

## Advancing the NSDI (2 minutes max)

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- A new reliable national level multifunctional geo-portal that is easy to search and use and provides seamless authoritative framework data as well as additional notional data of interest.
- One of the purposes for such a geo-portal should be to support permitting applications (requiring geospatially referenced information). If we could enable these permitting process with ready and reliable geospatial data, we could solve a national problem.

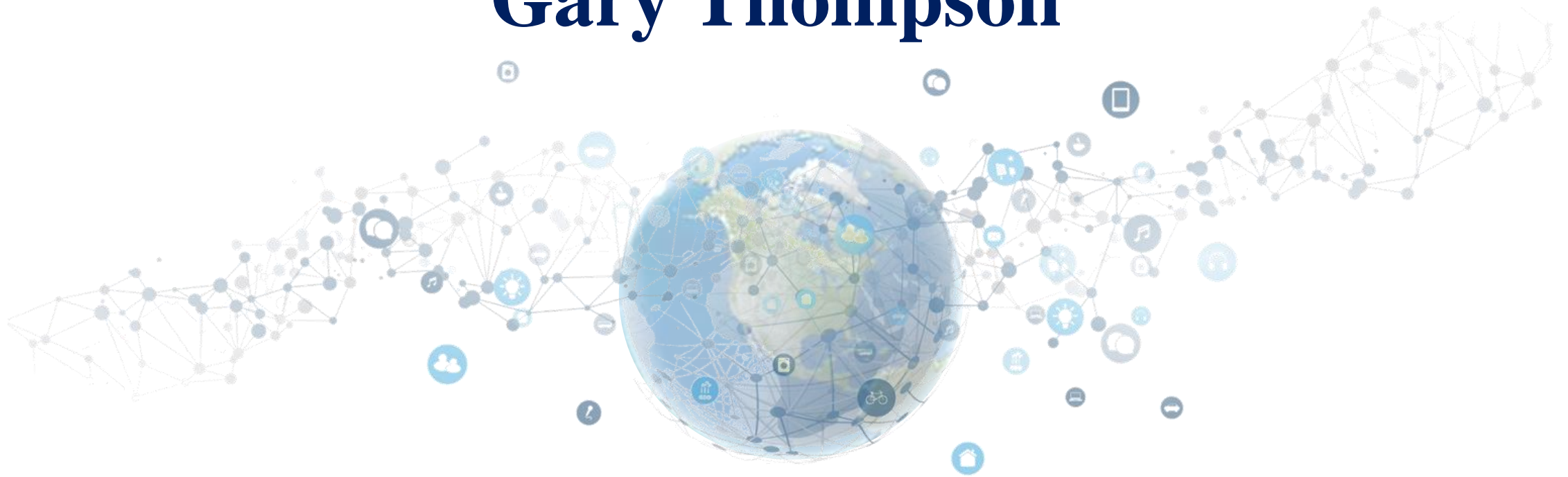
The private sector's role in this effort should be to build the portal and more importantly, all the associated geospatial data for the government.

---

Thank You! 🦆

# NGAC Member Presentations

## Gary Thompson



National Geospatial Advisory Committee  
2 April 2024

# Introduction

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- Name: Gary W. Thompson
- Role: Deputy Hazard Mitigation Chief, Chief North Carolina Geodetic Survey
- Sector: State of North Carolina
- Why did you want to be a part of NGAC?

To develop partnerships between local, state, and federal agencies and the private sector.

Promote public/private partnerships

Support and promote 3DEP

Advise the FGDC



# Member Perspective

- Flood Inundation Mapping and Alert Network

**DPS** Emergency Management  
NC DEPARTMENT OF PUBLIC SAFETY

**FIMAN** Flood Inundation Mapping & Alert Network

Showing 576 Gauges

Search by location or gauge

**FIMAN TOOLS**

Overview Layers Legend

Find Gauges

By Area of Interest By Location

Select Category Select Subcategory

Go Clear

Gauge Overview

Current	Forecasted
↑ Rising: 0	↑ Rising: 0
→ Constant: 0	→ Constant: 0
↓ Falling: 0	↓ Falling: 0
↑ Rising: 0	↑ Rising: 0
→ Constant: 0	→ Constant: 0
↓ Falling: 0	↓ Falling: 0
↑ Rising: 0	↑ Rising: 0
→ Constant: 0	→ Constant: 0
↓ Falling: 0	↓ Falling: 0
↑ Rising: 2	↑ Rising: 2
→ Constant: 3	→ Constant: 3
↓ Falling: 2	↓ Falling: 2

EMAP Accredited

FIMAN

Menu Weather Radar

Showing 576 Gauges

Search by Location or Gauge

FIMAN TOOLS

Overview Layers Legend

Find Gauges

By Area of Interest By Location

Select Category Select Subcategory

Go Clear

Gauge Overview

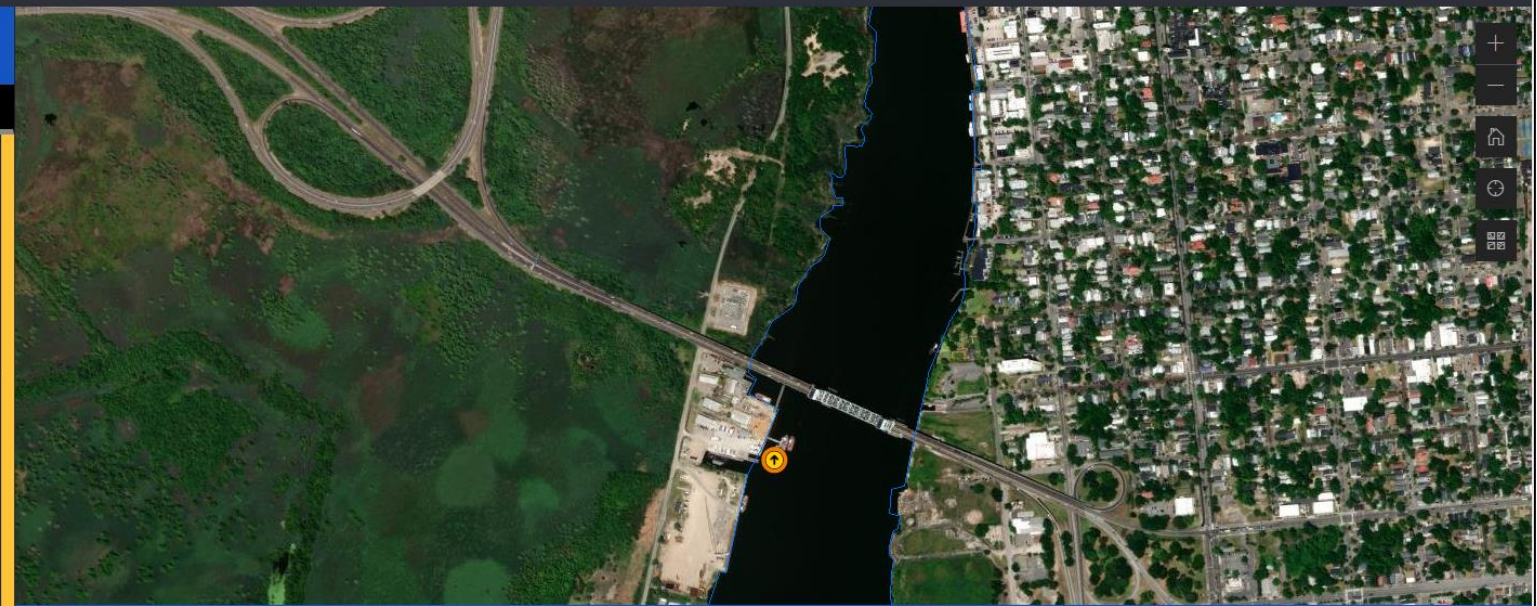
Current Forecasted

Major Flooding Rising: 0 Constant: 0 Falling: 0

Moderate Flooding Rising: 0 Constant: 0 Falling: 0

Minor Flooding Rising: 0 Constant: 0 Falling: 0

Monitor Rising: 2 Constant: 3 Falling: 2



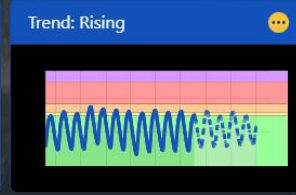
Wilmington - Cape Fear R nr US 17/76 - SITE ID: 8658120

Current Scenario Forecast History Photos

Subscribe Get Report

General Info Site ID: 8658120 Last updated: Mar 13 2024 1:24PM Gauge datum: -2.6 ft NAVD 88 Owner: NOAA

Stream Elevation Water Elevation: 2.4 ft NAVD 88



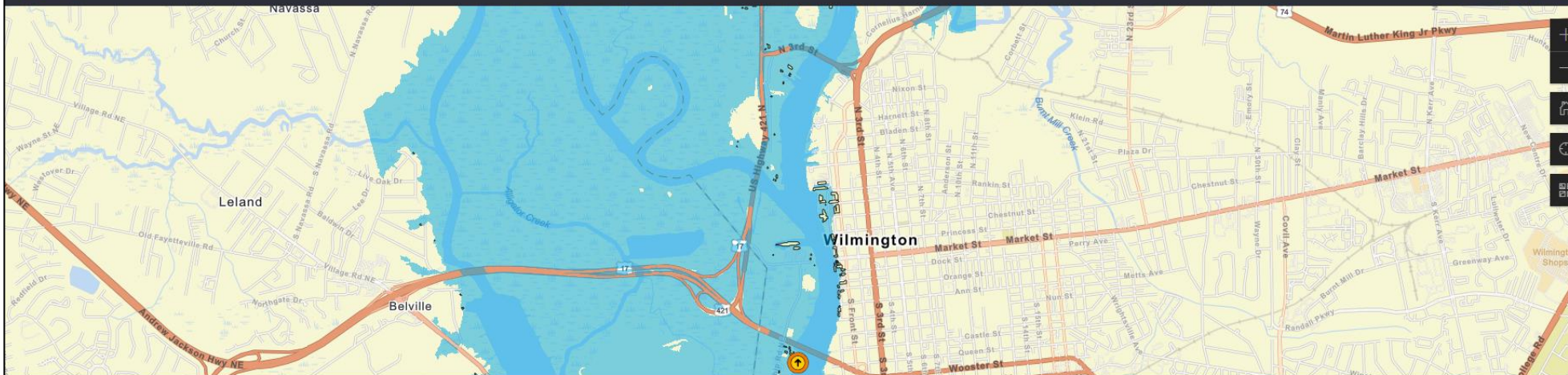
NWS Forecast Peak Elevation: 3 ft 03/14/2024 1:00 AM



Menu  Weather Radar

Showing 576 Gauges

Search by Location or Gauge



Wilmington - Cape Fear R nr US 17/76 - SITE ID: 8658120

Current Scenario Forecast History Photos

Subscribe Get Report

Historical Peaks

	Historic Event Name	Date	Peak Stage
<input checked="" type="checkbox"/>	Hurricane Isaias	08/03/2020	9
<input type="checkbox"/>	Hurricane Florence	09/13/2018	8.3
<input type="checkbox"/>	Hurricane Matthew	10/07/2016	8.2
<input type="checkbox"/>	Hurricane Hazel	10/14/1954	8.2
<input type="checkbox"/>	Hurricane Ian	09/29/2022	7.7

# Advancing the NSDI

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- Update the Geospatial Positioning Accuracy Standards, Parts 1-5
  - Partner with state agencies, other federal advisory committees, and private sector to assist with updating the accuracy standards

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Thank You! 🦆

# NGAC Member Presentations

## Tim Trainor



National Geospatial Advisory Committee  
2 April 2024

## Introduction (1 minute max)

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- Name: *Tim Trainor*
- Role: *NSDI Subcommittee*
- Sector: *Private Sector – Principal Consultant*
- Why did you want to be a part of NGAC?
- *To influence the direction of the National Geospatial Program to meet the future needs of the U.S.*

## Member Perspective (2 minutes max)

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- Working with the SDG Data Alliance ([sdg.org](http://sdg.org)) to help developing countries develop two outcomes:
  - A Country-level Action Plan (CAP) based on the UN Integrated Geospatial Framework (UN-IGIF) that expands the former NSDI concept. The CAP is country owned, country led, and country delivered. Builds sustainability.
  - Stand up an SDG Data Hub using Esri technology and services.
    - Challenges include:
      - Lack of statistical and geospatial data at meaningful levels of geography needed for the SDGs.
      - Lack of basic infrastructure for today's work environment (dependable electricity, internet service, computer hardware & software).



## Advancing the NSDI (2 minutes max)

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- Create a pilot to test of the “system-of-systems” concept using data managed in a local government system that automatically feeds a federal data asset repository using required standards and data hygiene to assure data quality.
  - This test will inform NGAC on what is needed to prepare geospatial data for the IoT to be AI-ready.
- The private sector can collaborate with local and federal governments as part of the pilot (CRADA, contract, etc.)

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Thank You! 🦆

# NGAC Member Presentations

## Maggie Cawley, OpenStreetMap US



National Geospatial Advisory Committee  
2 April 2024

## Introduction (1 minute max)

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- Name: Maggie Cawley
- Role: Executive Director
- Sector: Nonprofit
- Why did you want to be a part of NGAC?

It is an important avenue and opportunity to represent the OpenStreetMap data community and give voice to the 8 million+ contributors around the world in the US federal geo space.

Encourage innovative ideas for policy making that will improve the efficacy of geospatial tools and data to support the nation.

# Member Perspective (2 minutes max)

"Dear OpenStreetMap...  
...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."

Utah Backcountry Coordinator, National Park Service.

Comparison of trail rendering within Canyonlands National Park



Visitors rely on mobile applications to discover, plan, and navigate public lands.

# Member Perspective (2 minutes max)



## Trails Stewardship Initiative

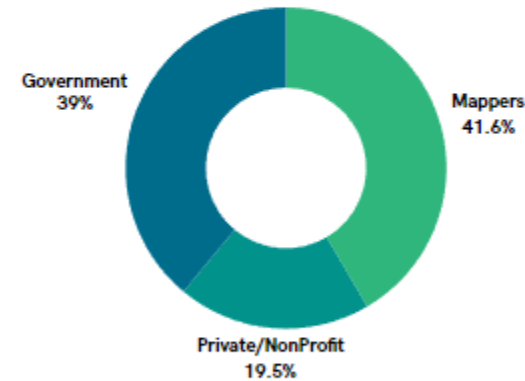
IMPROVING TRAIL DATA ACROSS THE US

- ✓ Convened stakeholders who collaborated on **best practices for tagging trails** in OSM
- ✓ **Developed tagging guidelines** and worked with private apps to incorporate them
- ✓ Discussed and piloted design guidelines for 3rd party navigation applications
- ✓ Collected **feedback from land managers** through our initial pilot in Washington

[openstreetmap.us/trails](https://openstreetmap.us/trails)

### Trails Working Group

Collaborating to support responsible mapping of trails on public land in the United States for hiker safety & environmental protection.



**85 participants since 2021!**

USFS, NPS, BLM, USGS, AllTrails, Gaia, onXmaps, Komoot, nonprofits, mappers, academia, & more.



# Utah Campaign Objectives



## STAKEHOLDER ENGAGEMENT

Expand outreach and support for the Initiative with federal and state public land management agencies, local advocacy groups, mappers, and other key stakeholders in Utah



## WORKFLOW IMPROVEMENT

Pilot workflows, hone tools, and expand tagging guidelines to refine an accessible workflow for improvement of trail data across public lands.



## DIGITAL STEWARDSHIP

Design & pilot the Digital Trail Steward program to increase the role of volunteers and partners in digital trail stewardship



## A NATIONAL VISION

Plan for a National Trails Campaign that considers MAPLand Act efforts



# Utah Campaign Strategy



## ITERATIVE PROCESS

Phases enable an iterative process and ample time for stakeholder engagement and building partnerships..



## PRIORITY AREAS

As trail networks and recreational use often cross administrative boundaries, priority areas have been defined to incorporate logical groupings of public lands, particularly where trail networks cross jurisdictions.



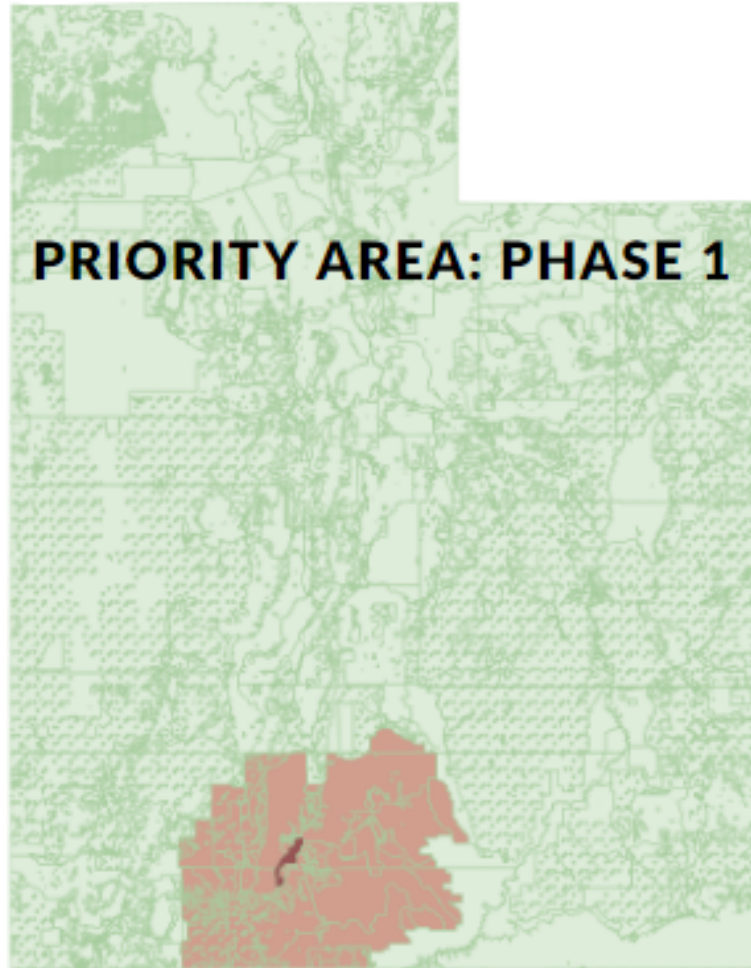
## FEEDBACK & IMPROVEMENTS

Priority areas allow the Initiative to effectively identify and meaningfully engage with relevant stakeholders, while improving the workflow through an iterative feedback process.





# Utah Campaign Timeline\*



\*everything subject to change

## Phase 1: October 2023-June 2024

**Focus:** Develop the foundation for mapping across the state by engaging with stakeholders, supporting mapping efforts in a single region, fundraising to support the initiative & developing initial documentation and workflows.

**Anchor Park:** Bryce Canyon National Park

## Phase 2: June - November 2024

**Focus:** Expand efforts to Priority Area 2 & 3. Build on lessons learned from Phase 1. Explore technical improvements to improve accessibility and expand the contributor base. Pilot the Digital Ambassador Program

**Anchor Parks:** Zion National Park & Arches National Park

## Phase 3: November 2024 - TBD

**Focus:** Expand efforts to improve trails data on all public lands in Utah, implementing lessons learned, tooling, and workflows developed previously to enable wide scale volunteer contribution and stakeholder engagement.

# Digital Trail Stewards Program

to be designed & piloted in **2024**

Trained & experienced volunteers

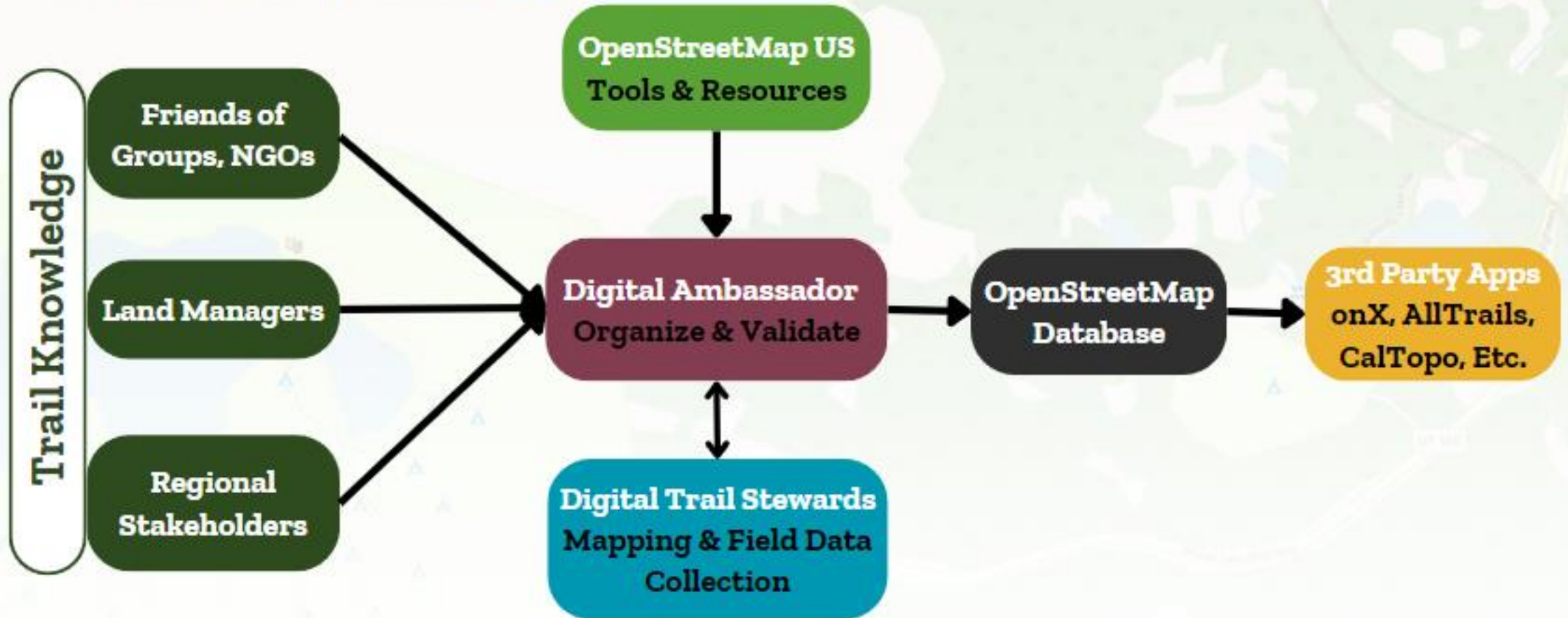


- ✓ Adopt local trail systems & parks pledging to **maintain & update** trail data in OSM
- ✓ **Serve as a point of contact** for local land managers with questions or data needs
- ✓ Earn **recognition** or compensation for their service



# Digital Trail Steward Program

to be designed & piloted in 2024



# Sustainable Impact through Collaboration

## INITIATIVE GOALS



### **EQUITABLE ACCESS**

Improve equitable access to trails for all citizens. Know before you go!



### **SAFETY**

Increase safety for outdoor enthusiasts on public lands with more recent maps



### **RESPONSIBLE RECREATION**

Foster a sense of ownership & responsibility among those who cherish these outdoor spaces



*Utah is just the start of this journey.*



# Upcoming Events



April 30 - Washington DC  
Free for .gov, .mil, .edu, .org  
[fedgeo.us](https://fedgeo.us)



State of the Map US  
June 6-8, 2024  
[stateofthemap.us](https://stateofthemap.us)

# Member Perspective (2 minutes max)

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## The OpenStreetMap US Pedestrian Working Group

OpenStreetMap US launched the Pedestrian Working Group in March to convene a diversity of stakeholders with an interest in OpenStreetMap pedestrian data to find ways to collaborate and improve pedestrian accessibility across the country.

Major cities throughout the U.S. and world are lacking pedestrian features in OpenStreetMap, and much of the work being done by local organizations, governments, individual mappers, and private companies are happening in silos.

This working group is an invitation to help build a forum for collaboration and learning while improving data on features such as sidewalks, crosswalks, curbs, and signals.

First meeting had 50 participants. Next meeting is April 16.

Learn more or get involved at

<https://openstreetmap.us/get-involved/working-groups/>



# Advancing the NSDI (2 minutes max)

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- Name and briefly describe (in a sentence or two) one projects/initiatives to enhance our national geospatial infrastructure with a resulting product or impact that could be realized within 3-5 years.

Improvements to the curation, contracting, and dissemination of data to reduce duplication of efforts and cost to the American public, and reliance on a top down approach.

- What might your sector's role and responsibility be in achieving the objective(s) of your proposed project/initiative?

Continued tooling improvement and education to increase accessibility for citizens to help provide up-to-date volunteered geographic information/data & maintaining a critical path for open data.



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# Thank You!

