

# Wetlands Subcommittee Update to Coordination Group



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# Introduction

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The purpose of the Wetlands Subcommittee is:

1. To promote standards of accuracy and consistency in spatial wetlands data financed in whole or in part by Federal funds;
2. To exchange information on technological improvements for collecting spatial wetlands data;
3. To encourage the Federal and non-Federal communities to identify and adopt standards and specifications for spatial wetlands data; and
4. To collect and process the requirements of Federal and non-Federal organizations for spatial wetlands data.

# Introduction

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## **Member Organizations include – but are not limited to:**

- ❖ Department of Commerce
- ❖ Department of Defense
- ❖ Department of Energy
- ❖ Department of Agriculture
- ❖ Department of Homeland Security
- ❖ Department of Housing and Urban Development
- ❖ Department of Interior
- ❖ Department of Transportation
- ❖ Environmental Protection Agency
- ❖ National Capital Planning Commission
- ❖ Tennessee Valley Authority



# NGDA Data Themes and Data Sets

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- ❖ The National Wetland Inventory falls under the purview of the Wetlands Subcommittee.
  - Dataset Manager: Mitch Bergeson, US FWS
  
- ❖ The Wetlands Subcommittee is associated with the Inland Water Theme.
  - Theme Co-Leads: Al Rea, USGS and Megan Lang, US FWS

# Recent Projects

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- ❖ Development of NWI Version 2 Dataset
- ❖ Launch of the NWI Version 2 Mapper with mobile capabilities
- ❖ Formation of Federal Interagency Wetland Mapping Working Group

# NWI Background

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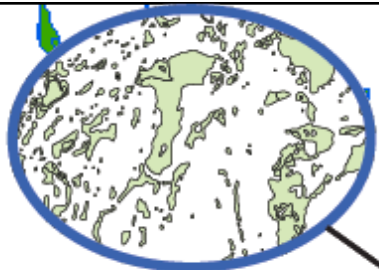
- ❖ Emergency Wetlands Resources Act of 1986
  - Map wetlands of the U.S. - **National Wetlands Inventory**
  - Provide 10 year reports – **Wetlands Status and Trends**
  
- ❖ National Geospatial Data Asset (NGDA)
  - Supports mission goals of multiple federal agencies
  - Statutorily mandated
  - Supports Presidential priorities as expressed by OMB
    - OMB Circular A-16 identifies the Wetlands Layer as a National Spatial Data Infrastructure (NSDI) layer
    - Stewards of National Wetland Classification Standard
    - Stewards of the FGDC Wetland Mapping Standard

# NWI Version 2

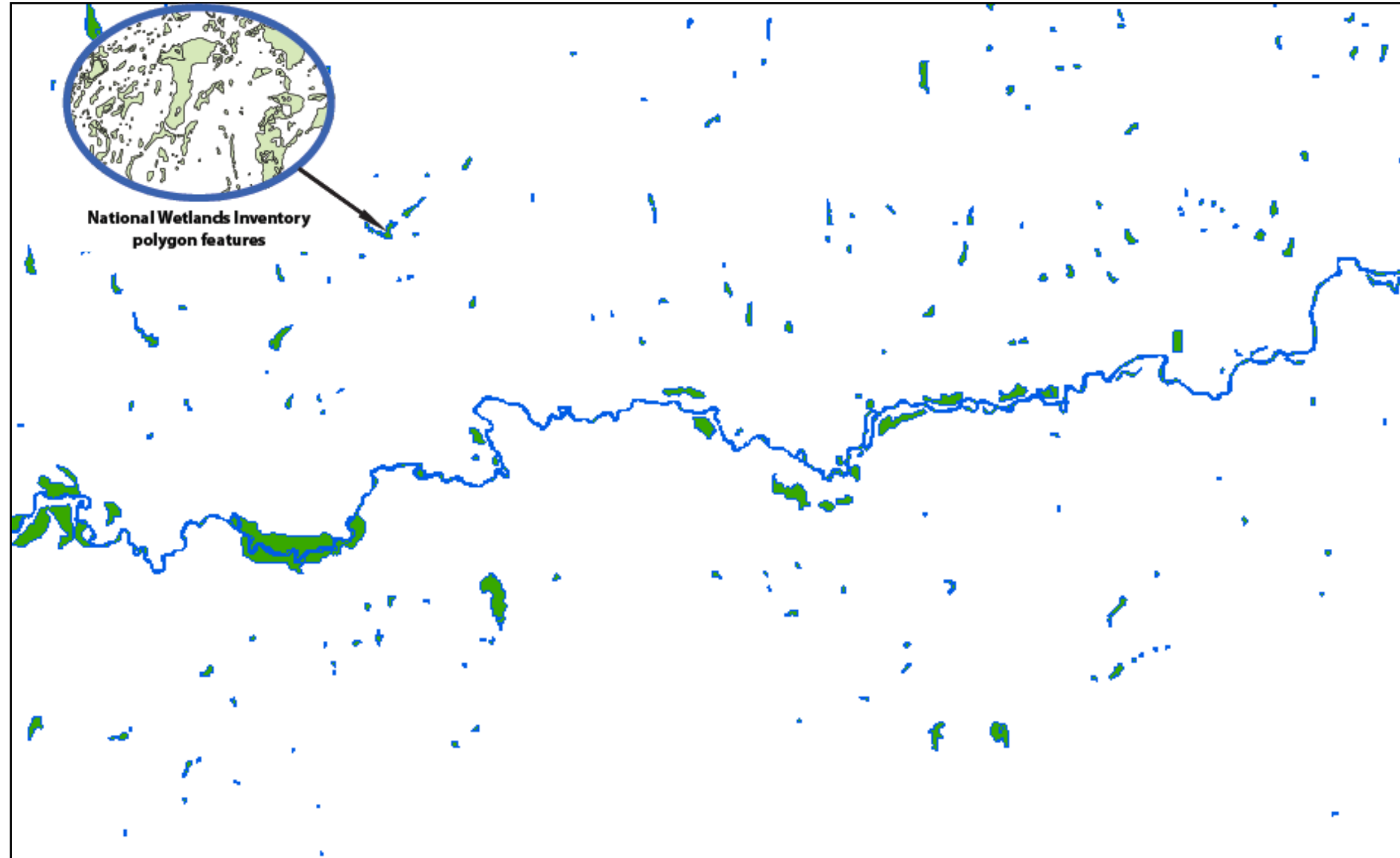
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- ❖ Provides more inclusive geospatial data of all wetlands and surface water features
  - Retains wetland and deepwater polygons from NWI
  - Reintroduces linear wetland features orphaned from original NWI hardcopy maps
  - Supplements the dataset with buffered hydrographic linear data (NHD) not mapped by NWI
    - Applies the Cowardin classification system to provide consistent ecological descriptors (2<sup>nd</sup> Edition, 2013)

# NWI Version 2

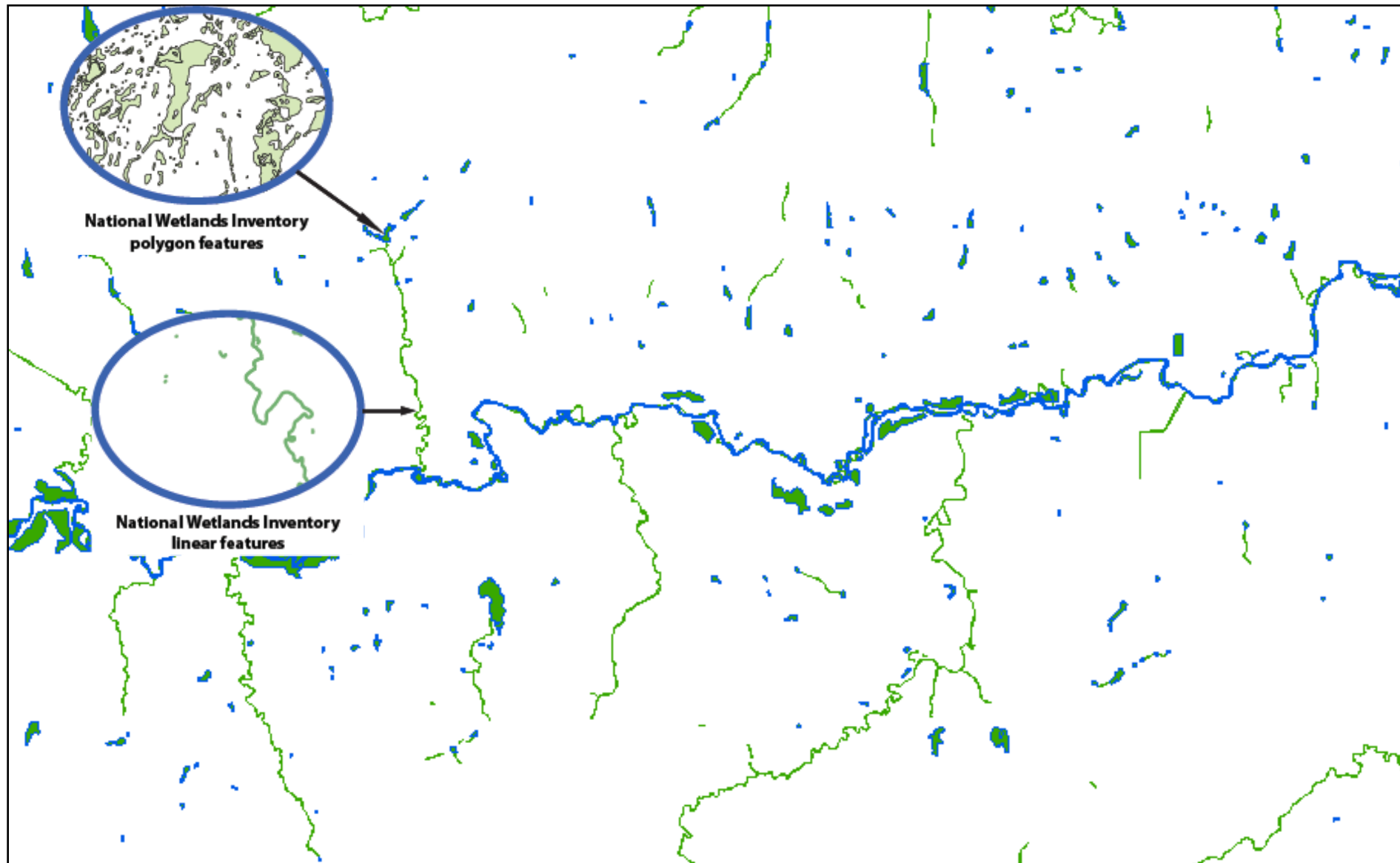


**National Wetlands Inventory  
polygon features**

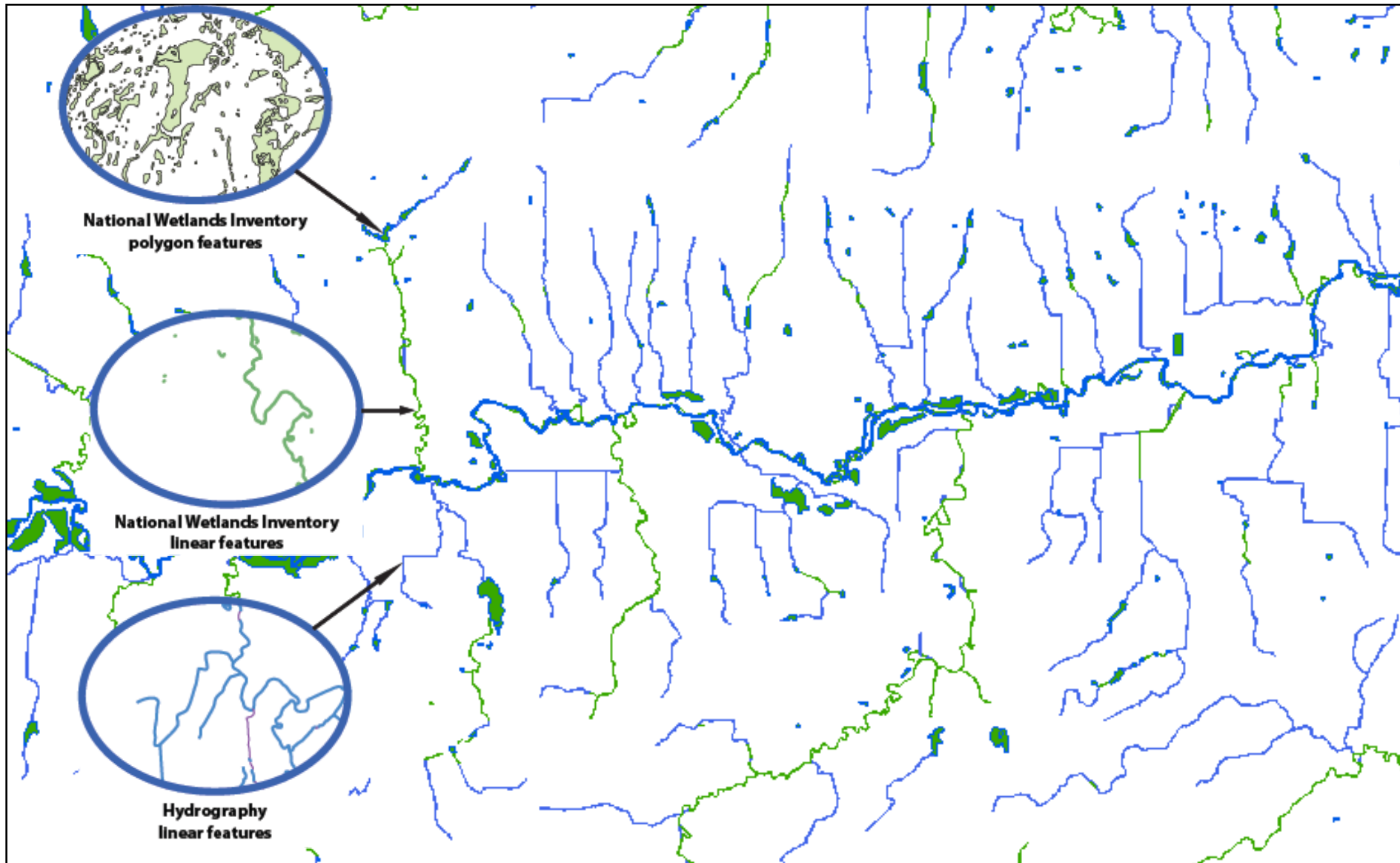




# NWI Version 2



# NWI Version 2





# NWI V1 – Wetlands Mapper

U.S. Fish and Wildlife Service  
National Wetlands Inventory - V2  
Surface Waters and Wetlands

- ❖ Over 20 million polygons
- ❖ ~1,000 unique users/day
- ❖ ~500 maps downloaded/day
- ❖ ~100 data downloads/day

Available Layers

- Surface Waters and Wetlands
- Riparian
- Riparian Mapping Areas
- Data Source
  - Source Type
  - Image Scale
  - Image Year
- Areas of Interest
- FWS Refuge
- Historic Wetland Data

Surface Waters and Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

Surface Waters and Wetlands Mapping Status

- Digital
- No Data

Map Scale: 1:18489298 Lat: 36.9674, Lng: -67.5879

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<https://www.fws.gov/wetlands/Data/Mapper.html>





# NWI V2 – Wetlands Mapper

U.S. Fish and Wildlife Service  
National Wetlands Inventory - V2  
Surface Waters and Wetlands

- ❖ Over 32 million surface water and wetland polygons
- ❖ Same functionality as original Wetlands Mapper
- ❖ HTML 5 Platform
  - Allows mobile devices to access the NWI V2 Wetlands Mapper

Available Layers

Surface Waters and Wetlands

- Surface Waters and Wetlands
- Riparian
- Riparian Mapping Areas
- Data Source
- Source Type
- Image Scale
- Image Year
- Areas of Interest
- FWS Refuge
- Historic Wetland Data

Surface Waters and Wetlands Mapping Status

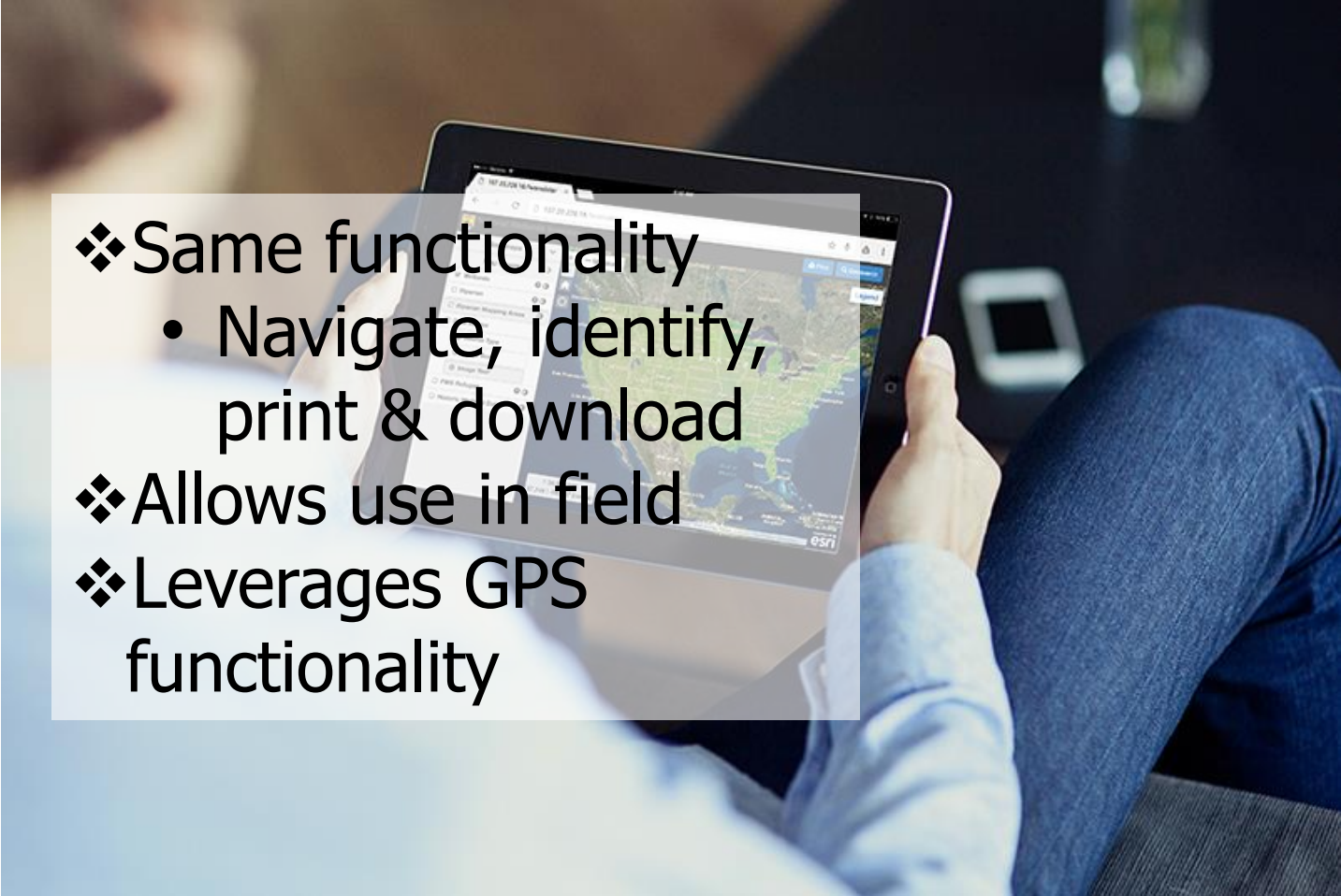
- Digital
- No Data

Map Scale: 1:18489298 Lat: 36.9674, Lng: -67.5879

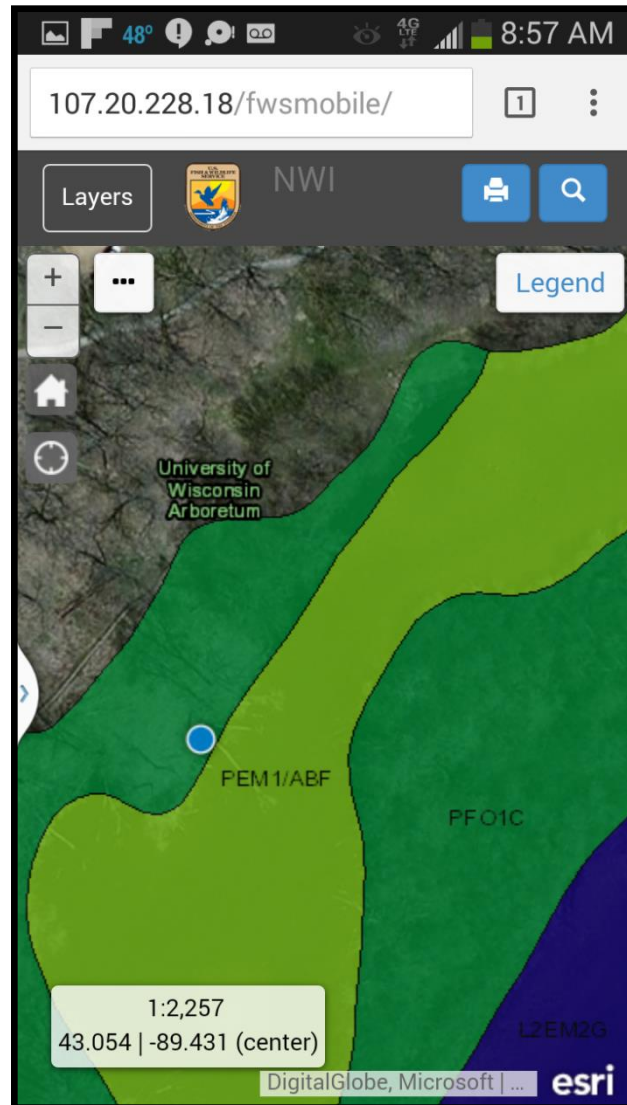
POWERED BY esri

<http://www.fws.gov/wetlands/Data/Wetlands-V2-Product-Summary.html>

# Wetlands Mapper – HTML5/Java

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- A person is shown from the side, holding a tablet computer. The tablet screen displays a web-based map application with a list of search results on the left and a map of the United States on the right. The application interface includes a search bar, a list of results with checkboxes, and a map view. The person is wearing a light blue long-sleeved shirt and blue jeans. The background is blurred, showing a dark surface and a white object.
- ❖ Same functionality
    - Navigate, identify, print & download
  - ❖ Allows use in field
  - ❖ Leverages GPS functionality

# Wetlands Mapper – HTML5/Java





# ASWM WMC Webinars

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- ❖ National Wetlands Inventory Version 2 – Surface Waters and Wetlands
  - Mitch Bergeson: March 30, 2016
- ❖ Updated Data Collection Procedures and Requirements for Meeting FGDC Wetland Mapping Standards
  - Rusty Griffin: February 17, 2016
- ❖ Changes in the FGDC Wetland Classification Standard – Cowardin 2.0
  - Rusty Griffin: January 28<sup>th</sup>, 2016

# Federal Interagency Wetland Mapping Working Group

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- ❖ Wetlands are highly variable, dynamic ecosystems that are challenging to map.
- ❖ Multiple federal agencies require wetland maps to support decision-making.
- ❖ Resources should be leveraged to improve mapping – financial and technical.



# Federal Interagency Wetland Mapping Working Group

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- ❖ Formed in 2016
  - US FWS, NOAA and USGS (to date)
- ❖ **Goal:** Leverage the spatial detail and accuracy of NWI geospatial data with the enhanced temporal resolution of satellite-based products
  - NOAA Coastal Change Analysis Program
  - MRLC National Land Cover Database
  - USGS Dynamic Surface Water Extent Product

# Federal Interagency Wetland Mapping Working Group

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- ❖ Working Group activities are well aligned with the responsibilities of the Wetlands Subcommittee.
  - Expertise of Wetland Subcommittee members will be solicited by the Working Group.
  - Knowledge gained as part of the Working Group will be shared with FGDC Wetlands Subcommittee members.

# Other Developments/Projects

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- ❖ 2<sup>nd</sup> Edition of Classification of Wetlands and Deepwater Habitats of the United States – August 2013
- ❖ Data Collection Requirements and Procedures for Mapping Wetland, Deepwater and Related Habitats of the United States (version 2) - August 2015
  - NWI Map Code Diagram and NWI Water Regime Restriction Table
- ❖ New Wetlands Data Verification Toolset – Arc 10.3.1
- ❖ Improved Wetland Code Interpreter
- ❖ FWS Wetlands Reports geospatially linked
  - Wetland Reports have geographical footprint and are discoverable via the Wetlands Mapper

# Next Steps

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❖ In the coming months, the Wetland Subcommittee hopes to accomplish:

- Continue to develop updated NWI V2 data, and disseminate data via the NWI V2 Mapper
- Identify initial collaborations supported by the Federal Interagency Wetland Mapping Working Group

# Questions?

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