

Some Basic NWI Facts:

- Established in 1974
- Goal to create database on characteristics and extent of U.S. wetlands including maps and stats
- In 1979, initiated national wetland trends study
- By 2013, produced digital wetland data for almost 100% of lower 48 states and over 40% of Alaska
- Currently prioritizing completion of AK and strategic updates
- Five national status and trends reports to date
- National wetland geodatabase one of the largest spatial datasets in the world

Comprehensive Classification System

Classification of Wetlands and Deepwater Habitats of the United States



By

Lewis M. Cowardin¹, Virginia Carter², Francis C. Goble³, and Edward T. LaRoe⁴

¹U.S. Department of the Interior

Fish and Wildlife Service

Office of Biological Services

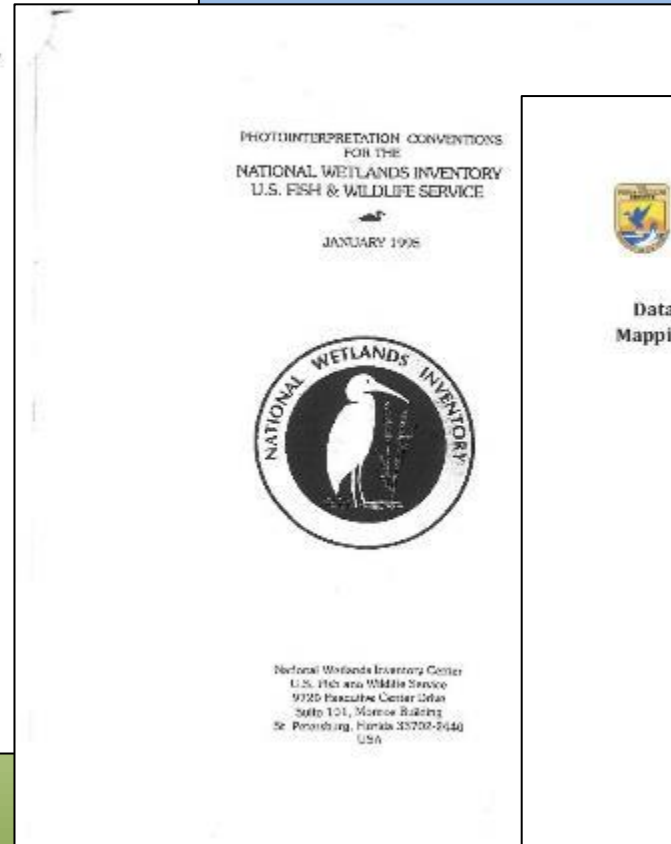
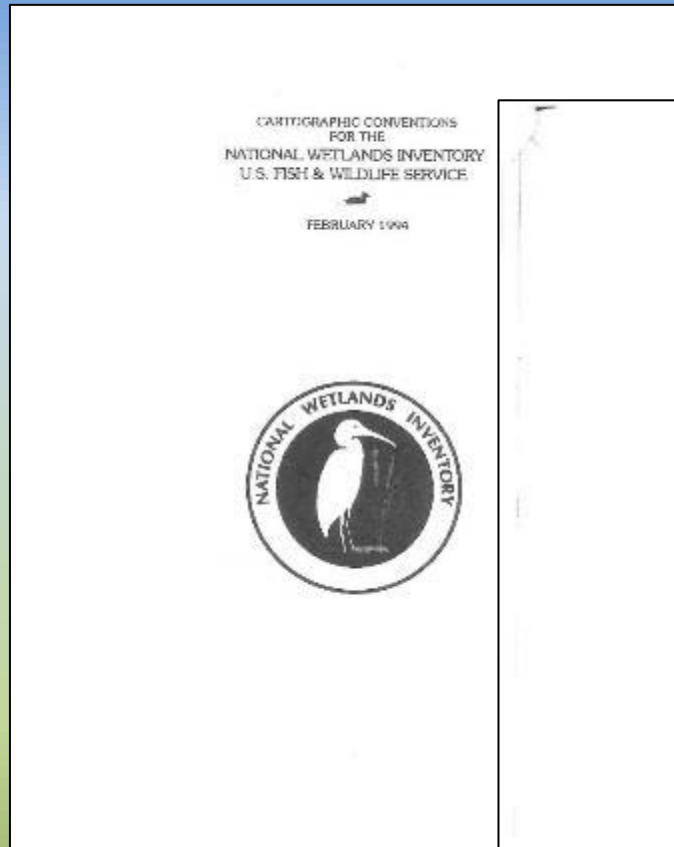
Washington, D.C. 20240

Classification of Wetlands and Deepwater Habitats of the United States

1

NWI wetland delineation and classification is completed using one of the most comprehensive, scientifically based, recognized systems in the world.

Supported by Rigorous Conventions



The Challenge of Alaska



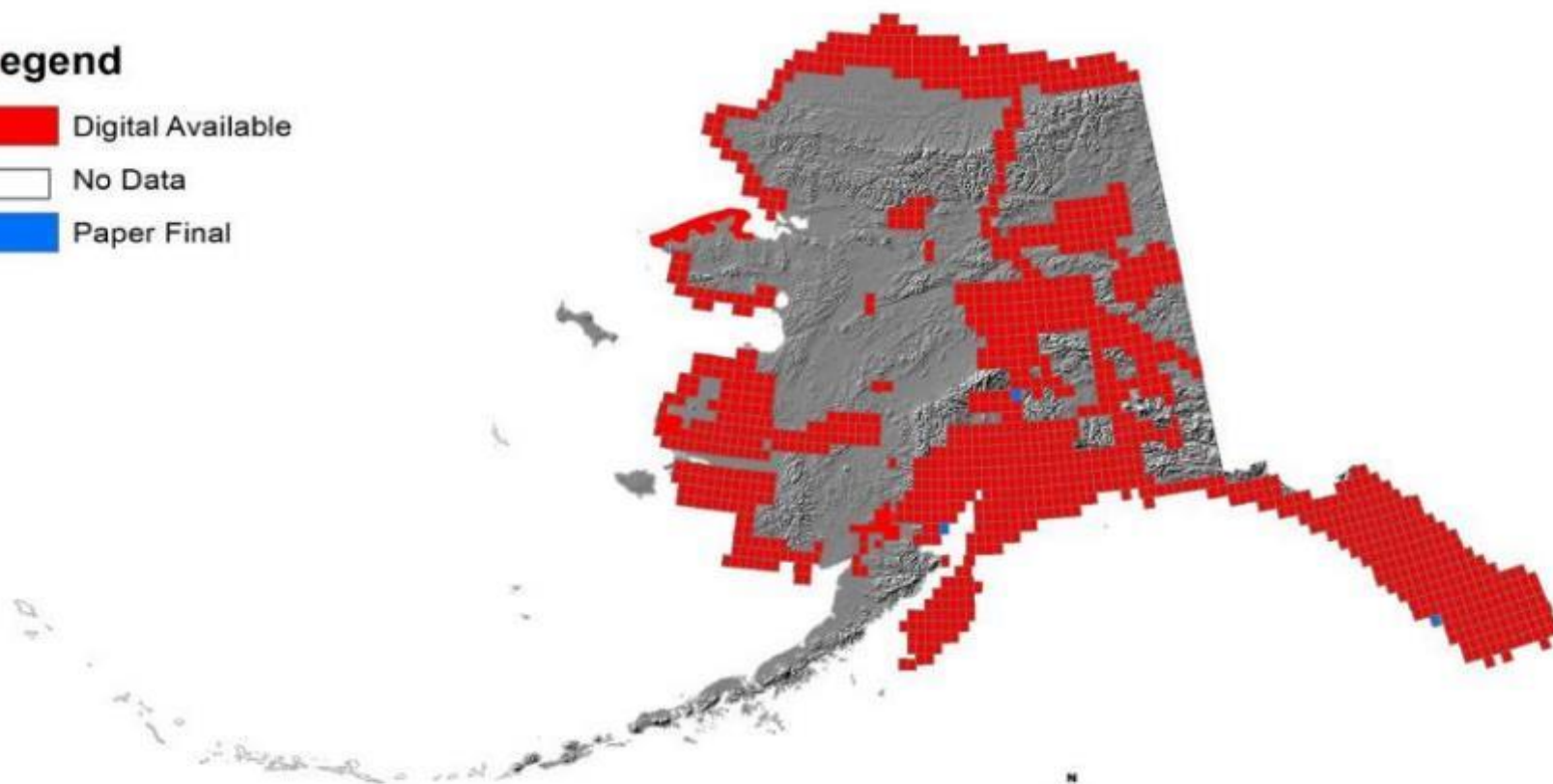
- Estimated 174 million acres of wetland in Alaska
- Represents 63% of the nation's wetlands
- Of the 174 Million acres approximately 110M are freshwater and 64M are marine and intertidal

2015 National Wetlands Inventory - Alaska Mapping Status

Alaska Region US Fish and Wildlife Service

Legend

-  Digital Available
-  No Data
-  Paper Final



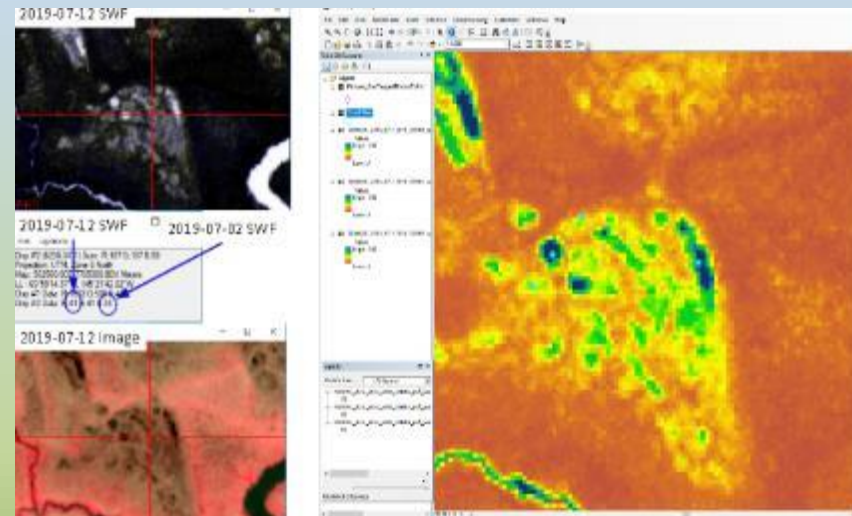
Alaska Region



U.S. Fish & Wildlife Service

Filling in the Data Gaps

- **Strategize statewide**
- **Seek out returns on existing investments**
 - USGS Digital elevation data
 - USGS National Hydrography Dataset
 - New Mapping Technologies
 - Complete coverage within 10 years



University of Maryland automated Surface Water Fraction analysis.

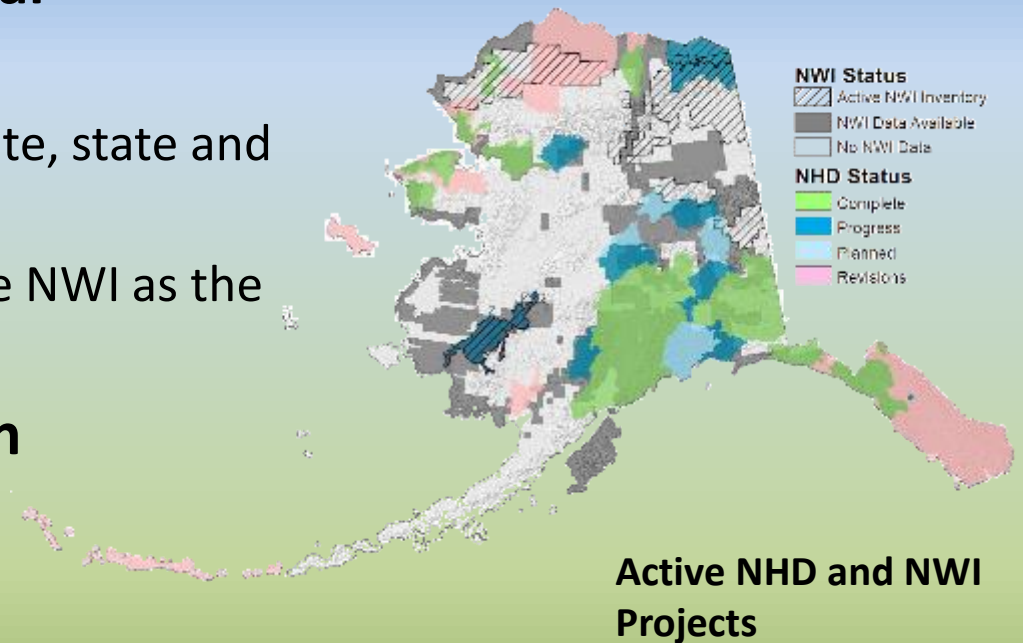
Partnerships are Critical

- **Alaska Wetlands Technical Working Group**

- Interagency group of private, state and federal representatives
- Draft strategy specifies the NWI as the statewide data

- **Interagency Coordination**

- BLM agreement
- USGS hydrography efforts
- National Park Service
- EVOSTC
- Alaska Center for Conservation Science



Target Mapping Units

5 acre TMU



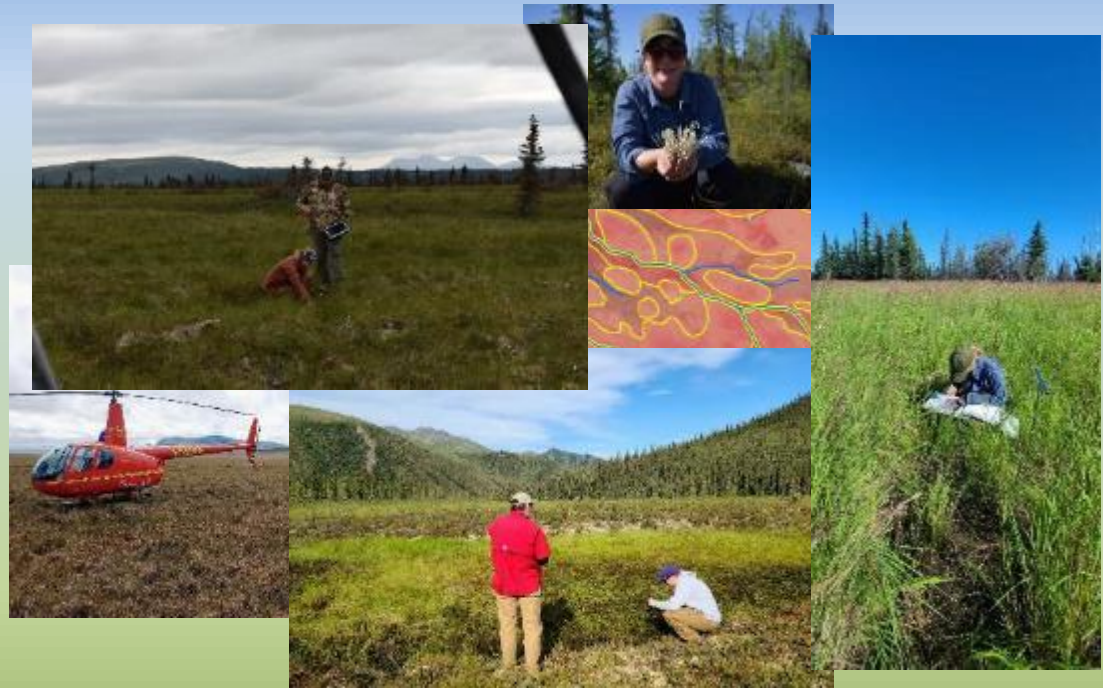
1 acre TMU



Both are NWI Compliant Products

Field Work – Convention Building

- Reconnaissance level documentation
- Pre-selected sites of known and unknown wetland type (2-300)
- Confirm wetland type and characteristics
- Documented with field notes, photographs and GPS locations



Tribal Community Partnerships

- Funding: Wetland Program Development Grants, BIA grants, Tribal community funds
- Supported by other CWA Programs – 106, 319 and 401
- Incorporate cultural significance and traditional ecological knowledge

Who Are We...

“A culture that is intertwined with its natural surroundings”

“Dating back to the tribe’s earliest years, environmental stewardship included wide-ranging efforts to protect, preserve, and conserve groundwater and surface water resources.”

“Our lives are aligned with the changing seasons”



Tribal Wetland Importance

A long history of wetland/water interactions:

- Tribal origin stories center on wetland plants and animals
- Fresh water supply for various activities
- Numerous tribal medicinal plants and building materials are hydrophytic
- Floodplains of rivers, streams and lake margins are often traditional agricultural areas
- Fishing from rivers, lakes and streams is a primary subsistence activity

New Mexico Statewide Update

- Federal wetland program development grants
- Integration with other State programs and creative partnerships
- Stakeholder engagement – Watershed Based Plans, Wetland Jewels
- Foundations and private corporations

Stratifying Assessment/Monitoring

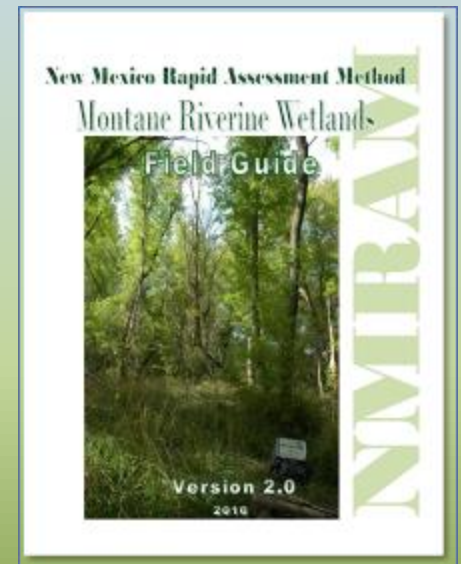
New Mexico Rapid Assessment Method (RAM)

Stratification

- Riverine Confined, Unconfined and Episodic
- Playa
- Slope

Compare current wetland functions to expected

- Establish reference wetlands
- Collect and evaluate field data using RAM
- Include regulatory parameters (jurisdictional metrics)



Planning for Restoration





NM Wetland Jewels

- Comprised of either a single wetland or a complex of several wetlands occurring in a discrete geographic area.
- Provide several important ecological functions to the terrestrial and aquatic landscape as well as to downstream communities.
- A stakeholder driven tool to build ecological and community resilience in the face of climate change.

An aerial photograph of a mountain valley. In the foreground, there is a large, dark, irregularly shaped wetland or pond area with some green vegetation. A winding river flows through the middle ground, surrounded by dense evergreen forests. In the background, there are large, rugged mountains with rocky peaks and some sparse vegetation. The sky is blue with scattered white clouds.

Questions?

Andy Robertson
Executive Director
GeoSpatial Services
Saint Mary's University of Minnesota
aroberts@smumn.edu
507-457-8746

GeoSpatial Services

