There is no doubt the negative impacts of climate change on fish and wildlife will be significant. A major conservation challenge is predicting the level of those impacts and determining what management actions can be taken to help species adapt. And open access to accurate, up-to-date geospatial wetlands information is critical to meeting this challenge.

Secretary of the Interior Salazar

August 2009
National Wetlands Inventory
Mapping for the Desert Renewable Energy Conservation Plan (DRECP)

ESRI User Conference
July 22, 2015
The National Wetlands Inventory provides current scientifically-based information on the location, status, extent, characteristics, and functions of wetlands and related habitats to promote the understanding and conservation of these resources.
National Wetlands Inventory

  - Map wetlands of the U.S. - National Wetlands Inventory
  - Provide 10 year Reports – Wetlands Status and Trends Reports
- 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
Wetlands Mapper

- Over 20 million polygons
- 40 years and $220+ million
- Over 165 contributors
- Nearly 1 million website views annually
- 335,000+ Mapper unique users annually
- First DOI application hosted in the Cloud
Wetlands Mapper – Data
952 Watershed Downloads  Feb 2015
Map Services

- Google Earth – KML
- Web Mapping Service – WMS
- Rest Services
  - FWS – IPAC system
  - Army Corps – ORM system
  - EPA NEPAssit system
- USGS National Map
- USGS US Topo
- GeoSpatial Platform.gov
- Data.gov
- ESRI ArcGIS Online
- GIS User’s – Desktop Software
National Status and Trends
Wetland Classification
FGDC-STD-004

Riparian Classification
Not a FGDC Standard
• What is the DRECP?
• How will NWI data help?
• Funding source for NWI project: BLM = $525,000 in FY13
• Anticipate more funding for FY15-16
DRECP Data Gateway
NWI Project for DRECP

- Developed Five Year Interagency Agreement between USFWS and BLM.
- Developed Contracts to SWCA, Inc as the mapping contractor.
- Began mapping and updating wetlands and riparian data for over 22 million acres of the California desert.
National Wetlands Inventory

NWI Status for California Desert
National Wetlands Inventory

Setting priorities

First step – Completed 2013
Finish unmapped areas

Priority 1 – Completed 2014
Finish ROW
Priority 2– Completed 2014

Finish revised ROW

Priority 3– Completed 2015

Finish revised ROW

Priority 4– Funded 2015-16??

Finish rest of DRECP
Wetland Mapper currently only displays polygon data.
Next Steps

- Add streams and convert to polygons areas not updated for more consistent dataset.
- Update NHD data for DRECP based on NWI update.
- Add Upland Riparian
- In order to update all quads in the DRECP additional funding is needed in 2015.
DRECP National Wetlands Inventory Overview and Update
Existing NWI data

- 1970-2015 imagery
- Various image scales
- Inconsistent classification
- Inconsistent riverine features
- Few small features
Modernized NWI data
• Reshaped line work
• Updated classification
• Added riverine features
• Added wetland features
• Removed features (rarely)
Input data sources

• Existing NWI
• Aerial Imagery
  • NAIP
  • GE historic reference
• NHD Data
• Soils Data
• Elevation
• Local knowledge
• Field visits
Riverine updates
• Use existing data
• Add to existing data
• Reshape existing data
• Attribute modified data
• Input datasets
  • Aerial imagery
  • DEM
  • Aspect
  • Flow accumulation
National Wetlands Inventory

Time for an update?

Existing NWI
National Wetlands Inventory

Existing NHD

Missing Something?
National Wetlands Inventory

Playa complex
- Partially automated process
- Supervised classification
- Remove small features
- Generalize features
- Add/reshape riverine features

Updated NWI
National Wetlands Inventory

Existing NWI

Missing wetland and riverine features
National Wetlands Inventory

Existing NHD
National Wetlands Inventory

Added and reshaped wetland features

Added and reshaped riverine features

Updated NWI
National Wetlands Inventory

Existing NWI

Missing wetland and riverine features
National Wetlands Inventory

Existing NHD
National Wetlands Inventory

Added and reshaped riverine features

Added and reshaped wetland features

Updated NWI
Previously unmapped riverine/wetland features

National Wetlands Inventory

Existing NWI
Updated NWI
National Wetlands Inventory
National Wetlands Inventory
National Wetlands Inventory
National Wetlands Inventory
NWI Uses

• Landscape level planning
• Biological monitoring
• Refuge conservation planning
• T&ES habitat conservation and restoration potential
• Energy transmission planning
• Energy exploration and generation sighting
• Flood/Drought mitigation and planning

Image sources (CW): FWS, BLM & CDFW
“When 900 years old you reach, look as good you will not, hmmm?”
-Yoda

“When 30 years old your data reaches, look as good your data will not, hmmm?”
-Yoda on NWI data
Thanks!

elaine_blok@fws.gov
503.231.2192

cmoller@swca.com
503.224.0333