

# Wetland Names Working Group (WNWG)

Wetland Program Development Grant Proposal

May 30, 2012

# Wetland Program Development Grant

WPDG--Organize a team to draft a national Wetland Program Development Grant (WPDG) proposal for WNWG that would include a wetland unique identifier pilot project. We discussed potentially working with ongoing wetland mapping efforts in several states (including Maryland, Montana, New Mexico, Minnesota, and others). It has also been suggested that we consider funding to support the proposal to FGDC of any needed mapping standards to support the implementation of stable unique identifier codes and names for wetlands, as well as related WMC programmatic work to support these efforts.

# Agenda

1. Welcome
2. Introductions
3. Status of WPDG & Follow-up From Last Meeting
4. WPDG Proposal Outlines
5. WPDG Planning and Next Group Meeting
6. INTECOL/SWS 2012 Lunch Meeting
7. Wrap-up

# WPDG Status

- \* Not Yet Announced
- \* Submission of WNWG Proposal

# Follow-up

## From Webinar May 23, 2012

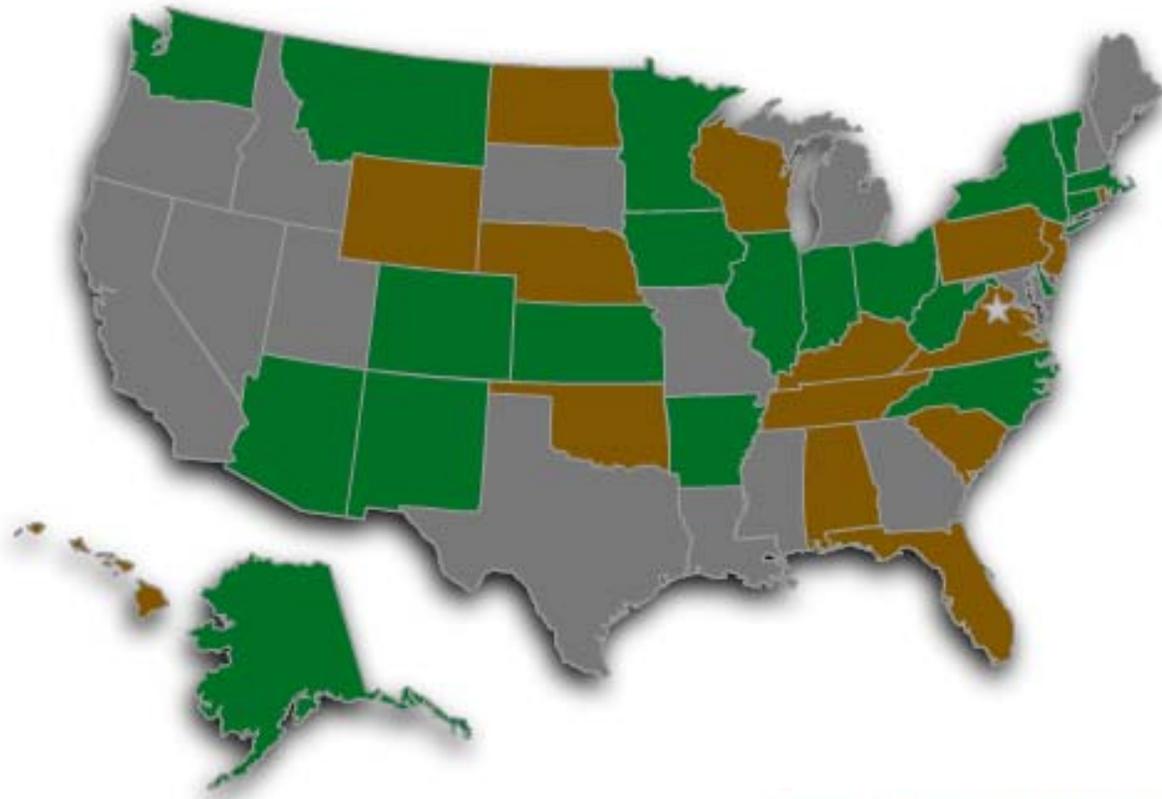
- \* Next WPDG May 30 at 11 am ET/10am CT--Present DRAFT Outlines for 3 or 4 components
- \* Plan on lunch group meeting after INTECOL Session Tuesday
- \* Add [lockwoodc@cnlworld.org](mailto:lockwoodc@cnlworld.org) to WPDG subgroup (COMPLETED)

# LLWW Questions/Discussion Points

What do we use as a starting point?

- \* Landscape Position
- \* Landform
- \* What about intersections (roads, streams, etc): When do you break polygon, or keep complex together. Would LULC rules work? Depends on scale/resolutions. Consider whether accepting linears or polygons only. Sounds like we may need to state our conventions. NH split on 2 lane roads, also looked at hydrological connection.
- \* When working with NWI data, and applying LLWW would you redraw polygon?
- \* We need to be able to track polygons over time.
- \* Geographic Coordinates for a Locator Point (Central, Internal point) should not change and could function as the unique identifier code.
- \* For MN LLWW creates polygons too small to include entire complex—maybe need to look at NH method.
- \* What about using DEMs?
- \* How much aggregation is reasonable or helpful?
- \* Do we really want to use complexes for our base unit, since monitoring will be looking at parts. What parts are important for monitoring? Landscape setting?
- \* What about multiple levels. Could the Complex be identified separately? Separate Identifier code for complex, with sub-identifiers for landscape setting.
- \* CMECS (may be endorsed today) has ecoregion codes. Given hydrological connections in coastal areas, is geomorphology more important in a nested approach.
- \* Remote and automated mapping of features for coding would be helpful. But that depends on what data is available for mapping at a particular site. Ultimately our goal is to develop a national system, so we need to look at something that can be applied everywhere. NWI and LLWW are being applied nationally and would be amenable to pilot study.
- \* Pilot should address defining polygon for study area, Could we test LL vs NWI for nesting, as best way to apply. We may want to vary regionally.
- \* We may be recommending a process to identify most effective unit to apply

<http://aswm.org/wetland-mapping/state-mapping-efforts>



2010 Wetland Mapping Summary

Saturday, 01 October 2011 00:00

-  State responded, Mapping underway
-  State responded, no mapping underway
-  State did not respond

# Stable Unique Identifiers: State Projects

- \* Numeric Codes for the Identification of Basins in Minnesota  
<http://mn.gov/oet/policies-and-standards/geospatial/gis-pages/mn-basin-identification-codes.jsp> --This standard has been developed to improve the sharing and exchange of information about lake and wetland basins.
- \* Generation of unique identifiers for complexes of NWI polygons based on the updated New Hampshire Method  
<http://nhmethod.org/index.htm>. See “NHWetlands Base Map” at <http://www.granit.unh.edu/data/downloadfreedata/category/databycategory.html>.

# Stable Unique Identifiers: Key Issues

- \* Codes must function within a relational database context to support robust analysis. The national level is the missing puzzle piece to putting state and regional databases together for analysis.
- \* Codes need to reflect wetland dynamism: expansion/contraction, disappearance/reappearance, and fragmentation over time.
- \* Will there be a target minimum or maximum wetland size for coding? The wetland Mapping Standard specifies a target mapping unit of 0.5 acres. Some smaller wetlands have significant biological functions which there may be need to monitor.
- \* Length of code may become unwieldy.
  - \* Alpha-numeric code packs more info in field space.
  - \* Multiple fields may be required to store components of code and to aid in analysis.

# Stable Unique Identifiers: DRAFT Recommendations:

- \* Use of only these codes and names would **NOT be mandated**, states and others would still be free to use their own systems. The intent is to build methods that will solve fundamental problems and be so useful that everybody will want to use it as a complement to their data set.
- \* The names and codes should remain **separate from any wetland/upland determination** (even currently drained wetlands or planned/future wetlands could be issued national wetland names and identifier codes).
- \* Utilize **multiple approaches** and relational tables for robust usage possibilities.
- \* Code(s) should be informationally robust enough to allow for **multiple levels of aggregation and splitting**.
- \* Develop a **new FGDC standard and National Coverage** for Wetland Names and Stable Unique Identifier Codes (work towards grants and funding to develop)
- \* Stable Unique Identifier Code assignment by **online web-based tool and database lookup**.
- \* **Develop a regional pilot project**.

# Overview: Components of WPDG Proposal

1-3 could be years in a 3 year project.

1) Comparison of Coding and Quality Control Methods, Regional, (**determine how polygons are generated AND STORED [database content rather than design?]**)

2) Demos (Key Applications, must feedback into part 1 Comparison)

3) Compiling and Analyzing Results, & Technical Report: Case Studies, Regional Issues, Conclusions,

Recommendations & Implementation Plan (includes feedback from Demos on Coding and Quality Control)

4) Wetland Mapping Consortium work to facilitate this project, **HOSTING THE DATABASE/Cover (DESIGN, MAINTAIN, ACCESS)?**

including **WNWG coordination**, webinars and training, outreach, and planning for **Next Steps**

# DRAFT Components of WPDG Proposal

## 1) Comparison of Coding and Quality Control Methods, Regional

Application (to implement recommendations of in progress NSDI CAP technical report on wetland unique identifiers).

--Base Polygons?: NWI, LL(WW), HGM, or DEM-based ?

--Supplemental Polygons: Riparian and Hydric Soils (potential wetlands)

--Alternate Code types?: Locator Point (geographic coordinates of locator point), HUC/NHD

--Alternate methods for mapping (automated vs. manual methods)

--Accuracy Assessment on each part

Nesting , National to local scalability, Complexes vs Individual polygons

HUC creates built in scalability (11 to 16 digits)

# DRAFT Components of WPDG Proposal

## **2) Demos (Key Applications, must feedback into part 1 Comparison of Coding and Quality Control):**

- Retrofitting NWI Data
- Relate Coding to NWCA data for decision-making in geographic context
- Relate Coding to EPA's 3 level assessment approach
- Relate Coding to regulatory delineations (State & Fed)

# EPA 3 Level Assessment

- \* Level 3 Landscape Level is GIS-based
- \* Need Coding Consistency moving from Level 1 polygon (comprehensive data)
- \* Code should reflect EPA level
- \* Do we want nested polygons uniquely coded?
- \* Complex is Level 3 – code must be identified first
- \* Monitoring sites (comprehensive, RAM) are nested within complex, so codes will start with complex code
- \* Key point we would be developing a level 3 polygon convention for national application

# Relation of Wetland Naming Conventions

- \* Name system should include HUC and name of tributary
- \* Should we name just at complex level? Or do we need monitoring site names?
- \* Code from database could drive name structure
- \* How to deal with unamend tributaries, consistency with any other stream designation system?
- \* NHD coding scheme, but doesn't include names
- \* We don't have to cross reference or refer to local/historic names for this project since we are creating a stable unique identifier that would allow anyone else to cross reference the old and national scheme names. Cross reference opportunities important and could drive an application /demo.



Denise Clearwater: **Will ask state HWY re: funding**

National Wetland Program Development Grant  
Regulatory sub-tasks and pilot application

This project would test application of the system to assign unique identifiers to wetlands in a regulatory program. Tasks are: 1) integrate digital wetland determinations/delineations in a base layer, national database, and MDE application screening system; and 2) add wetland polygons from successful mitigation sites; and 3) Create pilot histories of wetland polygon through baseline mapping, delineation, and authorized future impact.

Final products would include:

updated digital maps, with photographs and data forms;

an updated screening application incorporating wetland management recommendations; and

report and recommendations regarding the pilot system and necessary revisions.

Denise Clearwater:

## National Wetland Program Development Grant Regulatory sub-tasks and pilot application

### **PROJECT DESCRIPTION**

This is a demonstration project to develop and test an approach for incorporating the unique identifiers of wetland polygons into updated digital wetland maps layers for regulatory purposes. The uniquely identified polygons visited during field reviews for wetland determinations and delineations would be updated in a new data layer and database. Wetland determinations and boundary verifications performed by MDE staff during wetland pre-application and application reviews. This information would be georeferenced for location and represent polygons originally designated with NWI map signatures. The work would build on a database application in use by MDE as part of its pilot Environmental Outcomes Wetland Demonstration Grant, by integrating the data in a new base layer used in application screening. Wetland updates would be accompanied by data sheets, photographs, and results of a rapid functional assessment procedure used by MDE. In addition, polygons of successful wetland mitigation sites would be created with results of success scoring and photographs. These sites are not currently part of wetland maps. Existing data layers of vulnerable wetlands (vernal pools) prepared by the Maryland-National Capital Park and Planning Commission would be added to MDE's screening layer, with accompanying information to guide management decisions. Digital data from assessments and boundary determinations from the State Highway Administration would also be added.

## Denise Clearwater:

### National Wetland Program Development Grant Regulatory sub-tasks and pilot application

#### Project Tasks

- 1) Integrate verified wetland information from permit review into data layer for screening and update NWI/base map records. Wetland info may be verification, partial verification of wetland boundary on subject property, or entire wetland on property, or entire wetland. Includes photos and data sheets.
- 2) Incorporate digital delineation from selected applicants –e.g. SHA
- 3) Incorporate results of rapid functional assessment
- 4) Complete polygons of programmatic mitigation sites and permittee mitigation sites

Denise Clearwater:

National Wetland Program Development Grant  
Regulatory sub-tasks and pilot application

### Project Need

Maryland wetland stakeholders have a continuing need for more accurate wetland maps and an efficient regulatory process. Maryland has Statewide wetland maps produced by the National Wetlands Inventory and by State agency efforts that date mostly from the 1980's and 1990's. However, stakeholders often complain about the inaccuracy of the maps. An objective of the Maryland Wetland Conservation Plan is to produce more accurate maps for advanced planning and regulatory use. Maryland lacks resources for a comprehensive update, but by incorporating under-utilized information generated by the regulatory process, MDE can produce verified wetland updates and a revised wetland base layer. In addition, MDE is attempting to develop a more efficient system for automated data transfer, beginning with the State Highway Administration (SHA). The inclusion of the verified wetland layers will advance the system now in use.

# DRAFT Components of WPDG Proposal

**3) Technical Report: Case Studies, Regional Issues, Conclusions, Recommendations & Implementation Plan**

# DRAFT Components of WPDG Proposal

4) **Wetland Mapping Consortium** work to facilitate this project, including WNWG coordination, webinars and training, outreach, and planning for next steps such as development of proposal(s) for new FGDC wetland-related standards as needed, and Guidance and Conventions for Wetland Names and Identifier Codes.

This really really drives having a 3<sup>rd</sup> year for overlap in 2 year WPDG cycle and new grant writing

Can/should we break out the WMC-Scholar support as a separate grant proposal through VT? –Will RFP give us some direction on this, whether it is a consistent or inconsistent approach.

\*Jane will check with VT and ASWM on their interest.

# Next Steps

- \* INTECOL/SWS combined Meeting, June 3-8, Orlando, FL
  - \* WMC Lunch together right after session Tuesday
  - \* Jane to send out update after lunch
- \* Wetland Names Working Group (WNWG) conference calls and document reviews (ongoing)—Next meeting June 11 –Andy pulling together ppt on polygons, nested coding, 3 level approach etc,
- \* **WNWG – WPDG Proposal:**
- \* Next WPDG meeting will follow WNWG on June 11 @ 11:15am
- \* **Identify Sources of Match**
  - \* States Md, NM, Mt, Mn, Ky
  - \* Nonprofits? (ASWM/WMC, CNL World, DU, etc)
  - \* Other?
  - \* --This may affect whether we want to break out 2<sup>nd</sup> grant proposal
- \* NSDI CAP Project Draft Review, July 2012
- \* NSDI CAP Technical Report distribution, September 2012

# Mark Your Calendar

Future WNWG-WPDG Conference Calls/Webinars are scheduled on the following 2012 dates:

- \* June 5 (Noon ET) Lunch Meeting at INTECOL/SWS 2012
- \* June 11 – 10 am ET Continue LLWW discussion, 11:15am ET WPDG Proposal
- \* June 27?

# Join the WMC

Wetland Mapping Consortium (WMC) membership is FREE. Members have access to email updates, online collaboration tools, as well as the monthly Webinar Series (3<sup>rd</sup> Wednesdays at 3pm Eastern). For registration information see

[http://clic.cses.vt.edu/WMC/WMC\\_Organizers.htm](http://clic.cses.vt.edu/WMC/WMC_Organizers.htm)

If you are interested in joining the Wetland Names Working Group (WNWG) or being notified of our future activities, please send an email to [wetlandmappingconsortium@gmail.com](mailto:wetlandmappingconsortium@gmail.com) with the subject line "Join WNWG". WNWG Conference Calls are held 2<sup>nd</sup> and 4<sup>th</sup> Wednesdays at 3pm Eastern.

# QUESTIONS or COMMENTS?

- **Wetland Names Working Group (WNWG)**
- **Stable Unique Identifier Codes**
- **Wetland Mapping Consortium (WMC)**
- **SSURGO Package for Wetland Mappers**
- **Wetland Mapping Training**

**For more information please contact:**

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