## Steps in the Development of Wetlands Standards — New Mexico



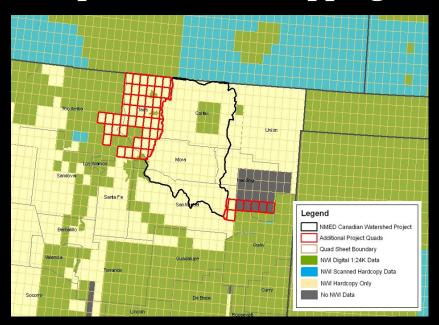
Presentation by Maryann McGraw
New Mexico Environment Department
Surface Water Quality Bureau
Wetlands Program

#### Steps In developing Standards for Wetlands

- 1. Mapping and classification update
- 2. Identifying wetland functions by wetland type
- 3. Hydrogeomorphic classification applied
- 4. Measuring the condition of wetlands by wetland type
- 5. Identifying stressors that affect wetland condition
  - 1. Protection of Standard Reference Wetlands
  - 2. Protection of most threatened wetlands
  - 3. Development of Mitigation Ratio condition assessment to apply 401 certification more effectively.
- 6. Database development
- 7. Identifiers of each wetland Assessment Units
- 8. Using these data to develop a defensible narrative standard by wetlands type
- 9. Plan for outreach to the public regarding the development and uses of wetland standards

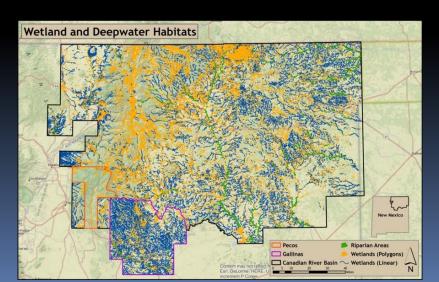
#### Mapping and Classification Update

#### Example of limited mapping coverage in New Mexico in 2010





**Current Mapping** 



#### Mapping and Classification

- 1. Mapping and remapping of all wetlands within New Mexico.
  - Establish a baseline using the Cowardin classification for NWI
  - Use Riparian Classification to map adjacent riparian areas
- Angel Fire: National Wetlands Inventory

  Angel Fire: National Wetlands Inventory

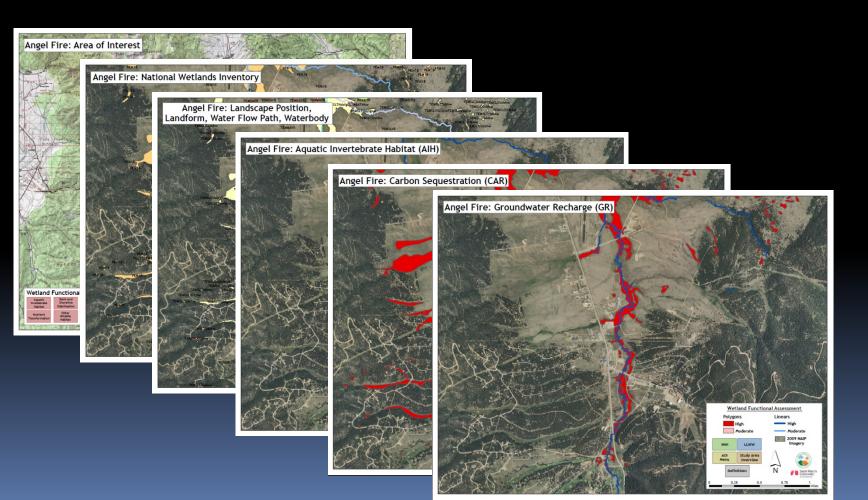
  Fig. 1

  Fig.
- Include linear wetlands for confined wetland types
- 2. Enhance wetland characterization using LLWW descriptors.
  - ➤ Landscape position, landform, water flow path, waterbody type
  - ➤ Develop additional modifiers for the arid west for the 4 basic attributes
  - ➤Use for cross-correlation with hydrogeomorphic (HGM) subclasses established for NM wetlands.



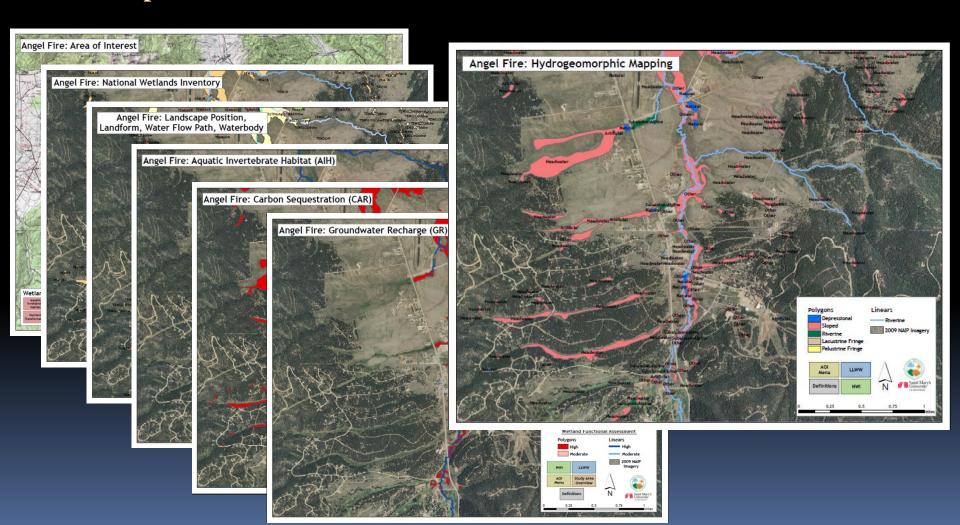
#### Identification of Wetland Functions

- 3. Assign and map functions for identified wetland types.
  - > Assign a set of wetland functions to wetland types
  - > Assign wetlands to moderate or high functioning for wetland type

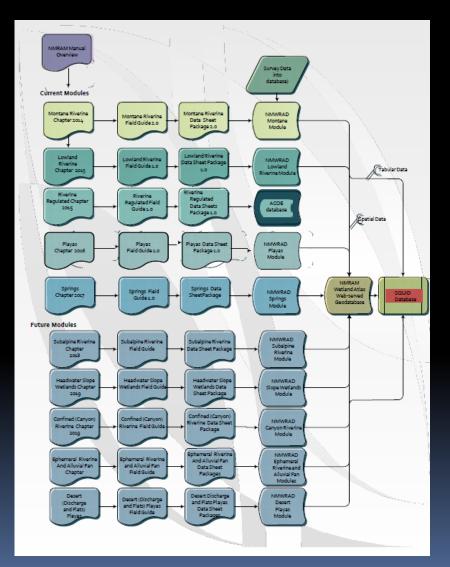


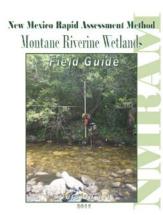
#### Hydrogeomorphic Classification Applied

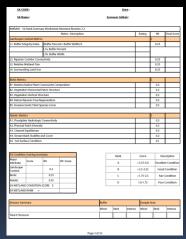
- 4. Map Hydrogeomorphic (HGM) subclasses
  - > Prepare for future NMRAM data collection



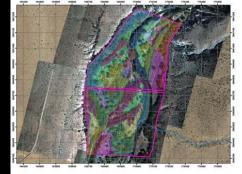
**Evaluating Wetland Condition by** Wetland Type



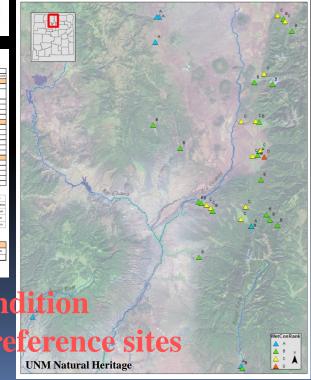








#### **Sampling Area**



### Identifying Stressors that affect Wetland Condition

Ground water pumping lowering water tables

Vegetation Removal

Development

Livestock and wildlife grazing

Agriculture



Introduced exotic species

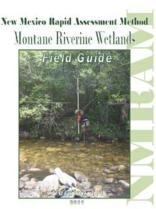
Flood control











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Grading/Compaction (N/A for restoration areas)										
Plowing Disking (N.IA for restoration areas)										
Resource extraction (sediment, grave), oil and/or gas)										
Vegetation management as negative impact (harracing, root plowing, pitting, drilling seed, or other practices that disturb soil surface)										
Disruption of leaf litter/humus, or peat/organic layer, or biological soil crust			В	П						
Excessive sediment or organic debris (e.g. excessive erosion, guilying, slope failure)	-			-						
Pesticides or trace organics impaired (point source or non- point source pollution)										
Trash or refuse	Ш	В	В	В			В			
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#### Database Development and Assessment Units

- > SQUID Surface Water Quality Information Database
- > Identification of Wetlands Assessment Units
- Quality Assurance Project Plan

## Anti-degradation and Outstanding National Resource Waters (ONRW) Designation

#### **Tier 3 Waters: Antidegradation Policy**

- ➤ No degradation shall be allowed in waters designated by the Water Quality Control Commission as ONRW.
- **≻**Highest level of protection
- > Exceptions

# Thank you from the New Mexico Environment Department Surface Water Quality Bureau Wetlands Program!

For More Information contact:
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Surface Water Quality Bureau
Wetlands Program website at:

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