Date: November 29, 2012

Agreement Number: G12AC20144

Project Title: Enhancing Wetland Classification for the FGDC Wetland Mapping Standard in

Montana

Interim Report

Organization: The University of Montana-Montana Natural Heritage Program, P.O. Box

201800, 1515 East Sixth Avenue, Helena, MT 59620-1800; mtnhp.org **Principal Investigator**: Karen Newlon, 406.444.0915, knewlon@mt.gov

Collaborating Organizations:

 Montana Department of Environmental Quality's (DEQ) Wetland Program, 1520 East Sixth Avenue, Helena, MT 59620, deq.mt.gov/wqinfo/wetlands/

- Colorado Natural Heritage Program, Colorado State University, 1475 Campus Delivery, Fort Collins, CO 80523, cnhp.colostate.edu/
- CNL World, 343 Morehead, Chadron, NE 69337, cnlworld.org/

Executive Summary: This project will develop semi-automated procedures to assign descriptors to existing digital wetland data to describe wetland characteristics not currently addressed under the existing wetland classification standard. These descriptors enhance the information associated with each wetland polygon by describing the landscape position, landform, water flow path, and waterbody type (LLWW). Functional data can then be summarized across watersheds, counties, or other large geographic areas, providing essential information to natural resource managers, city and county planning offices, and watershed councils. The MTNHP will also develop training materials and other technical guidance on the implementation of the standard. We will collaborate with other state and tribal organizations to share information regarding the approach. Additionally, we will conduct a pilot project to assess the accuracy of our approach using existing field data collected in Montana.

Project Narrative:

We have completed Task 1: Refine geoprocessing tools for semi-automation of LLWW attribution. We examined our current methods and looked for opportunities to improve the efficiency of our geoprocessing methods through the use of other existing digital data sets. We have also completed Task 2: Circulate geoprocessing tools and associated methods to our project partners for input. We sent out our procedures to partners for review. A conference call will be held on December 6, 2012 to discuss recommendations and other input from partners. Valuable input has already been received from several of our partners. Additionally, the Regional Wetland Coordinator with the U.S. Fish and Wildlife Service has provided valuable insights into the project. No major challenges have been identified. No major deviations from the original proposal have occurred.

Next Steps:

How will this project's activities continue beyond the performance period?

The MTNHP, along with Montana DEQ, is the theme steward for the wetlands theme in the Montana Spatial Data Infrastructure. Procedures developed through this project will be incorporated into all digital wetland mapping in Montana. As stewards of the Wetlands theme,

the MTNHP is responsible for continued maintenance and stewardship of digital wetland data. These data will ultimately be submitted to the USFWS Wetlands Geodatabase.

The training materials produced will be made available online through the FGDC NSDI website as well as the MTNHP website. Additionally, we anticipate further outreach opportunities as additional partners discover these products.

How will the knowledge acquired through this project be transferred to user communities beyond the performance period?

The training materials created through this project will allow other creators of digital wetland data to enhance these data with LLWW descriptors. The enhanced information provided will allow data users such as natural resource professionals, local and county planning offices, and watershed councils with the ability to more effectively prioritize conservation strategies, improve public understanding of wetland functions, and allow for cumulative assessment of loss and gains in wetland function across a given area.

Identify the relationships that have been established with other organizations to sustain activities beyond the performance period.

We are working closely with the Colorado Natural Heritage Program and other creators of wetland data in the Rocky Mountain Region to incorporate these methods into their mapping projects. We are also working closely with the Montana DEQ to ensure that users of these data have an improved understanding of the data products produced.

Describe the next phase in your project.

The next phase of the project will include incorporation of partner comments and recommendations into our geoprocessing tools. Once these tools are finalized, we will develop training materials for both creators and users of wetland data. We will also conduct an accuracy assessment of the LLWW classification using field-based wetland assessment data collected in Montana. We will present the background and applicability of this project at one or more meetings of GIS and natural resource professionals.

Identify project needs (more technical assistance, software, other?) How can the FGDC help?

None anticipated.