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Chief Jason Weller
Natural Resources Conservation Service
U.S. Department of Agriculture
1400 Independence Ave., SW, Room 5105-A
Washington, DC 20250

RE: Comments on Proposed Changes to Section I of the Iowa, Minnesota, North Dakota, and South Dakota State Technical Guides, Docket No. NRCS-2014-0013.

Dear Chief Weller:

Since 1937, Ducks Unlimited (DU) has partnered closely with private landowners, agency partners and many others to conserve our nation's vital wetland resources. Our mission is to conserve, restore, and manage wetlands and associated habitats for North America's waterfowl, other wildlife and people. On behalf of our nearly 1 million supporters and partners across the country, we appreciate the opportunity to review and provide technical comments on proposed changes to off-site wetland determinations used by NRCS in the Prairie Pothole Region (PPR).

Since 1985, Swampbuster has served as an effective public-private partnership to provide agricultural producers important federal farm program benefits and conserve our nation's wetland resources. These long-standing policies provide a multitude of societal benefits including a safe and abundant food supply, nutrient retention, improved water quality, wildlife benefits and reduced downstream flooding. In fact, these policies have helped protect up to 3.3 million acres of wetlands across the United States (Claassen 2012).

The vast majority (90% according to the National Wetlands Inventory (NWI)) of wetlands in the PPR are seasonal or temporary basins that are highly dynamic and greatly affected by extended wet-dry cycles. This dynamic nature makes this region's globally-unique wetland resource particularly valuable to continental waterfowl populations and other wetland-dependent species. Unfortunately, PPR wetlands have suffered significant historical losses (>95% in some states) and continue to be converted at alarming rates today. A recent study by the U.S. Fish and Wildlife Service found that more than 107,000 PPR wetlands were lost from 1997-2009 (Dahl 2014). Due to the importance of this resource, many private, state and federal agency partners have identified wetland conservation in PPR as a national priority.

GENERAL COMMENTS

In general, we support NRCS' efforts to improve the wetland determination process using better data and more efficient technology, as long as these new methods don't sacrifice quality and accuracy. We acknowledge the significant pressures and resource limitations placed on your agency and staff and we want to be helpful in these efforts. We also acknowledge the fact that agricultural producers need timely and accurate wetland determinations to provide certainty for their farming operations. **Most importantly, we want to ensure that the newly proposed State Off-Site Methods (SOSMs) are at least as or more accurate than current mapping conventions used in the Dakotas.** Accurate, reliable and timely wetland determinations are in the best interest of all parties including the USDA, agricultural producers, taxpayers and our nation's natural resources. In developing these new methods, NRCS must not sacrifice quality for timeliness.

Second, we want to ensure new SOSMs do not omit seasonal and temporary basins due to their continental importance and prevalence in the PPR. Using methods that provide an equal number of false negative (omissions) and false positive (commissions) determinations with no independently verified or published error rates is not scientifically defensible, nor is it in the best interest of taxpayers, producers or the region's wetland resources. Furthermore, wetland commissions currently have a formal and well-established appeals process, whereas omissions do not and would likely be discounted.

To help improve the accuracy and timeliness of wetland determinations, we respectfully encourage NRCS to adopt the following recommendations:

RECOMMENDATIONS

Use of Spring Imagery

Traditionally, NRCS has relied on Farm Service Agency's (FSA) late summer aerial photography for off-site determinations. While perhaps useful for crop monitoring and reporting purposes, late summer imagery does a poor job of properly assessing wetland hydrology during the "wet part of the growing season" (a statutory requirement) in the PPR because most seasonal and temporary basins are dry by this time of year.

We strongly recommend that NRCS begin collecting and using spring imagery (April-May) for off-site wetland determinations. Furthermore, spring imagery dating back to previous years may be currently available from other federal agency partners.

Defining "Normal" Conditions

Current federal statute and policies require that potential wetlands must be evaluated under "normal climatic conditions" or "normal environmental conditions". The proposed SOSMs require imagery review from all available normal precipitation years dating back to 1980.

We strongly recommend that NRCS' use all normal year slides (not just an arbitrary subset of years), and that NRCS revise its methods for determining which years are considered "normal".

NRCS' definition of "normal" must be adjusted to more accurately reflect natural conditions that commonly occur and affect PPR wetland hydrology. The SOSM proposal would use weighted precipitation data from a WETS table from the three months prior to when the image is taken to determine if it came from a normal year. Normal slides would have precipitation in the previous three months occur between a 30 percent lower and upper threshold. Simply using 3 months of precipitation data prior to late summer imagery does not accurately capture the many factors that commonly occur and affect wetland hydrology in the PPR. For example, wetland hydrology changes dramatically from year-to-year based on fall/winter precipitation, spring runoff, frost seal, soil moisture conditions, freeze-thaw dates, etc. NRCS currently does not consider any of these important factors in their SOSMs. Volumes of scientific literature support the fact that PPR wetland hydrology is significantly influenced by precipitation, temperature, soil conditions and evapotranspiration during fall, winter and spring. Winter (1995) noted that PPR wetland hydrology in North Dakota was significantly influenced by winter precipitation and snowmelt runoff. In addition, the spring stage rise in prairie potholes due to snowmelt runoff represented 65 percent of the total annual precipitation (Winter 1995). To accurately assess wetland hydrology during the "wet portion of the growing season", NRCS must consider all of these other important factors in their wetland determination assessments.

We strongly recommend that NRCS develop a more scientifically robust and defensible process to "normalize" slides based on all major factors that influence PPR wetland hydrology, not just simply a subset of rainfall patterns that occurred 3 months prior to late summer imagery.

Hydrology Signature Thresholds

Proposed SOSMs would determine wetland hydrology was present for a sample unit if wetness signatures were found on at least 50 percent of all normal year slides. NRCS has yet to provide any clarification or scientific justification as to how or why this arbitrary 50 percent threshold was selected. Previous mapping conventions have required NRCS to conduct on-site field visits for wetness signatures between 30-65% and for wetness signatures of less than 30% that were mapped as wetlands on the NWI. Given the fact that NRCS relies on late summer imagery and only a snapshot of precipitation patterns dating back 3 months prior to when that imagery was taken, we remain very concerned that this arbitrary 50 percent threshold is likely too high and may omit a large proportion of seasonal and temporary basins. At a minimum, we expect NRCS to independently field verify the proposed SOSM procedures to ensure that the 50 percent threshold does not omit a large number seasonal and temporary wetlands and make these error rates publically available. Furthermore, it is essentially biologically impossible to meet the hydric vegetation and soil signature criteria without having wetland hydrology. By definition, these two factors require hydrology in order to be present on the landscape.

We recommend that wetness signature thresholds be set at a level that produces omission and commission error rates that are at least as or more accurate than current state wetland mapping conventions used in the Dakotas. This should be evaluated using independent on-site verifications.

Furthermore, NRCS should conduct on-site investigations when both hydric vegetation and soils are present to verify that hydrology exists and therefore is considered a wetland.

Field Verification and Independent Validation

South Dakota NRCS released an Environmental Assessment on May 27, 2010, that compared off-site method alternatives to on-site determinations and tracked changes in wetland labels. This thorough assessment provided options for the best off-site alternative to conserve wetlands, provide timely determinations and decrease NRCS' overall workload. Before implementing the new proposed SOSMs, NRCS should conduct a similar assessment to ensure these methods are at least as or more accurate than existing mapping conventions. Furthermore, most commodity and conservation groups are in agreement in their preference for continued on-site determinations versus using exclusively off-site methods. It is the best interest of all parties (USDA, agricultural producers, taxpayers and natural resources) to minimize both wetland omission and commission rates. We'd welcome the opportunity to continue to partner with commodity groups and the agency to advocate for

increased USDA funding support to provide more "boots on the ground" for on-site determinations.

We expect NRCS to work with other federal partners to independently field verify the proposed SOSM before implementation to ensure accuracy and to minimize omission of seasonal and temporary wetlands. We also recommend that the agency continue to devote more resources and expertise to on-site determinations.

Wetland Sizing Procedures

NRCS proposes to size wetlands based on images from 2-4 years locally determined to best capture "normal" conditions. However, this procedure is fundamentally flawed in that it ignores the dynamic nature of wetland systems in the PPR. NRCS proposes to use only late summer imagery from "normal" years to define the size of wetlands during the "wet portion of the growing season". Sizing wetlands with these arbitrary, late-summer slides will likely underestimate the number and size of wetlands.

We strongly recommend that NRCS properly size wetlands with the maximum extent (color tone/inundation) depicted on all normal year slides, in combination with fine resolution LIDAR (12" or less) and highly accurate soils maps. Additional on-site investigations (e.g., soil/vegetation sampling) would also help properly size wetlands.

CLOSING REMARKS

In conclusion, we generally support NRCS' efforts to bring greater consistency among states and improve data resources used for off-site wetland determinations. As highlighted previously, we support more expeditious wetland determinations that maintain high quality and accuracy. However, we want to ensure the agency doesn't sacrifice quality for timeliness or exclude important factors that dictate wetland hydrology and size.

We also recognize the immense pressures and capacity challenges facing your agency and want to continue to be a resource and strong partner in this process. Many of the recommendations outlined above would not only improve the accuracy and quality of determinations, but they would also give producers more certainty going forward. The proposed SOSMs could be greatly improved via independent, on-site verifications, better use of critical data that affects PPR wetland hydrology, and more robust wetland sizing requirements.

Thank you for your consideration of these recommendations. If you have any further questions or need additional information, please contact my staff, Dr. Johann Walker (jwalker@ducks.org) or Eric Lindstrom (elindstrom@ducks.org) at 701-355-3500.

Sincerely,

Paul R. Schmidt

Paul Schmidt
Chief Conservation Officer

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