



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Washington, D.C. 20240



In Reply Refer To:
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FEB 20 2015

Mr. Jason Weller
Chief, Natural Resources Conservation Service
U.S. Department of Agriculture
1400 Independence Ave. S.W.
Room 5105-A
Washington, D.C. 20250

Dear Mr. Weller:

The U.S. Fish and Wildlife Service (Service) appreciates the opportunity to comment on the Natural Resources Conservation Service (NRCS) draft State Offsite Methods (SOSM) for completing wetland determinations as part of the wetland conservation compliance requirements of the Food Security Act of 1985 as amended (Farm Bill). As described in the Federal Register Notice (Docket Number NRCS-2014-0013) dated November 5, 2014 (Vol. 79, No. 214), NRCS is proposing to issue SOSMs for Iowa, Minnesota, North Dakota, and South Dakota which will replace their State wetland mapping conventions. The Notice requests comments be submitted for each specific state; however, since the format, approach and content of the methods for each of the states is very similar, we will be providing one set of comments applicable to all four states.

The Service and NRCS have enjoyed a long and productive partnership working with landowners, State fish and wildlife agencies and other conservation partners to conserve wetlands across the country. This partnership is particularly important in the Prairie Pothole Region (PPR) of the Northern Great Plains, where small wetlands on private agricultural lands provide habitat essential to healthy populations of waterfowl and other wetland-dependent birds. The PPR includes parts of the four states covered by the SOSM and is an area where ongoing losses of these small, but vitally important wetlands are of particular concern to the Service. According to a 2014 Service report on changes in PPR wetlands between 1997 and 2009, wetlands declined by an estimated 74,340 acres (an average annual net loss of 6,200 acres), and the PPR lost more than 107,000 wetland basins (four percent). Ninety six percent of the basins lost were temporary emergent wetlands. Losses of these temporary and seasonal wetlands highlight the need for effective implementation of all the wetland conservation tools available in the PPR.

With over 58,000 wetland determination requests in the PPR from 2009 through 2013, the Service understands the need for NRCS to address the backlog of requests for wetland determinations in a timely manner. We support NRCS efforts to establish consistency within the PPR of the four states and to increase efficiency in completing wetland determinations, but we want to ensure the proposed SOSMs are not sacrificing the accuracy or reliability of

determinations for these seasonal and temporary wetlands in the PPR. In fact, the Service views development of the proposed SOSMs by NRCS as an opportunity to enhance the accuracy and reliability of wetland determinations for the benefit of both the agricultural producers and the wetland resource values Congress intended to protect with the wetland conservation compliance provisions of the Farm Bill. To that end, the Service offers the enclosed comments on the proposed SOSMs and looks forward to continuing and strengthening our partnership with NRCS to conserve PPR wetlands.

Thank you for your consideration of our comments on this important matter and for your leadership in addressing fish and wildlife resource needs nationwide. If you have any questions concerning these comments, please contact Ms. Cynthia Martinez, Acting Chief of the National Wildlife Refuge System at (202) 208-5333.

Sincerely,



A handwritten signature in blue ink, appearing to read "Cynthia Martinez".

DIRECTOR

Enclosure

**U.S. Fish and Wildlife Service Comments on the Natural Resources Conservation Service
(NRCS) Draft State Offsite Methods for Wetland Determinations in Iowa, Minnesota,
North Dakota and South Dakota**

Section Specific Comments

Section 2.1- Develop a Base Map

To help minimize errors of omission in developing base maps, the U.S Fish and Wildlife Service (Service) recommends that all existing resources be fully utilized. Specifically, we believe that all previously identified polygons on NRCS wetland inventory maps and NRCS official wetland determinations be considered sampling units for base map development. The current draft State Offsite Methods (SOSMs) state that previously identified polygons on NRCS wetland inventory maps and NRCS official wetland determinations "may" be a sampling unit. We recommend that this be changed to "will" be a sampling unit. Likewise, we recommend that the treatment of the soil survey and county hydric soil list as sampling units be changed from "may" be sampling units, to "will" be sampling units.

Section 2.2- Determine Remote Indicators for Hydrophytic Vegetation

As prescribed in 7 CFR 12.30, the Service, NRCS and other partners have a long-standing working relationship in the technical development of the National Wetland Plant List. We look forward to continuing this partnership and providing any additional assistance as needed. The Service believes the full suite of proposed remote indicators of hydrophytic vegetation described in the draft SOSMs is supported by current National Food Security Act Manual (NFSAM) policy and established ecological principles. We appreciate and support NRCS including National Wetland Inventory (NWI) maps as a data source in the proposed SOSM sampling unit and hydrophytic vegetation procedures. We also support NRCS' inclusion of Ecological Site Descriptions, land-based photography, and Light Detection And Ranging (LiDAR) in the proposed SOSMs.

Section 2.4- Determine Remote Indicators for Wetland Hydrology

On the technical merits, the Service is concerned that by utilizing later summer Farm Service Agency (FSA) aerial imagery as the sole tool to assess hydrology, a significant number of temporary and seasonal wetland hydrology signatures may be missed. The vast majority of wetlands in the U.S. portion of the Prairie Pothole Region (PPR) are comprised of temporary or seasonal water regimes which most typically express ponding or saturation early in the growing season. Conversely, the acquisition of FSA photography for commodity program evaluation purposes is timed to effectively assess cropping patterns, and as such, is typically acquired later in the summer when temporary and seasonal wetland hydrology is greatly reduced. It is important to also note that because the FSA imagery was not expressly captured for the purpose of wetland evaluation, the imagery timing does not generally correlate well with the concept of "*wet portion of the growing season*" noted in the FSA Wetland Identification Procedures.

Empirical data further illustrates the difference between spring and summer surface water hydrology in the PPR is profound. For example, during 1974-2003, the Service annually conducted two waterfowl habitat surveys (one in May and a second in July) that documented on average the number of basins with surface water in the eastern Dakotas declined by over 70% between May and July.

The Service recognizes that FSA aerial imagery is currently the only long-term data set of its kind in the PPR, and by necessity has played a central role in the wetland determination process since the advent of the Conservation Compliance era in the Food Security Act of 1985.

However, in the past, conservation administrators have consistently acknowledged the limitations of the FSA imagery and enacted a variety of techniques to compensate for the fact that the imagery is not acquired during the wet portion of the growing season. For example, at least six previous state-level wetland mapping conventions in the PPR have integrated NWI maps or prescriptive field visits into the hydrology evaluation and/or wetland determination process as a supplement to FSA imagery.

The Service recommends that NRCS develop techniques in the Numerical Hydrologic Analysis section of the SOSMs to supplement FSA imagery and compensate for the limitations posed by the timing of the photography. As a technical adjustment in the near term, the Service proposes the following two clauses be incorporated into the Numerical Hydrology Analysis section of the SOSMs:

- (1) If a specific sampling unit meets both the remote hydrophytic vegetation and remote hydric soil factors, and expresses 30%-49% wetness signatures in the remote hydrology assessment, further investigation of hydrology is warranted. Specifically, a field visit (preferably in the wet portion of the growing season) is warranted and the field indicators in the U.S. Army Corps of Engineers (USACE) 1987 Manual and appropriate USACE Regional Supplements will form the basis of the final hydrology determination for that specific sampling unit.
- (2) If a specific sampling unit meets both the remote hydrophytic vegetation and remote hydric soil factors, and is on a NWI map, and expresses less than 30% wetness signatures in the remote hydrology assessment, further investigation of hydrology is warranted. Specifically, a field visit (preferably in the wet portion of the growing season) is warranted and the field indicators in the USACE 1987 Manual and appropriate USACE Regional Supplements will form the basis of the final hydrology determination for that specific sampling unit.

The incorporation of these two technical adjustments in the Numerical Hydrology Analysis section of the SOSMs is consistent with a Level-3 wetland determination as prescribed in both the USACE 1987 Manual and the NFSAM Circular 6 guidance dated December 1, 2010. The

NFSAM Circular 6 guidance also notes that among other cases, Level-3 techniques are particularly suitable for “*seasonal depressional wetlands*.”

The process used by NRCS to normalize aerial photography does not take into account the major driver of prairie pothole hydrology, spring snowmelt runoff, which is a product of fall and winter precipitation from the previous year, spring precipitation and soil frost. We recommend that NRCS develop a process to normalize slides that also includes this major driver of prairie pothole hydrology, not just precipitation in the three months prior to the date of the aerial photography.”

In Section 2.4, three of the four SOSMs require field verification when wetness signatures are not readily visible because of perennial vegetative cover (such as pasture, Conservation Reserve Program lands and woodlands). The Iowa SOSM presents an inconsistency with the other three SOSMs by stating that “*...field verification may be necessary.*” To ensure consistency among all four states on this issue, we recommend the Iowa SOSM be revised to state that “*...field verification is required as well.*”

Section 4.2- Certified Wetland Determination (CWD) Map

As previously noted in Section 2.4 comments, the Service is concerned that by utilizing later summer FSA aerial imagery as the sole tool to assess hydrology, a significant number of temporary and seasonal wetland hydrology signatures may be missed. The use of this imagery will also have an effect on the actual sizing of these basins and potentially all wetland types due to natural dry-down during the summer months. Wetland acreages could be substantially reduced from the actual size of the basin under normal conditions at the start of the growing season. Accurate sizing of wetland basins is essential when establishing drainage tile set-back distances and/or establishing acreage for mitigation or replacement plans. As such, the Service recommendations for this section are to adopt the recommendations we made in Section 2.4 for wetland hydrology and that NRCS should size wetlands using the maximum extent depicted on the normal year slides.

Additional Comments

Scope

We recommend that NRCS define the scope of wetland types covered by the SOSMs. The draft SOSMs do not identify whether the procedures apply only to depressional wetlands in the PPR of the four States, or whether they cover all wetland types within the entire geography of all four States, such as slope or riverine floodplain.

The purpose of this document is to provide procedures that NRCS will utilize for rendering decisions when onsite inspection (field indicators) is unnecessary. We believe these off-site methods should only be applied for wetland determinations made on agricultural lands as defined

by NFSAM where the natural vegetation has been removed and managed for the production of food or fiber. Areas not included as agricultural lands under NFSAM, such as range land, forest land, wood lots, or areas of perennial vegetation such as CRP lands, would require an on-site determination and use the criteria from the USACE 1987 Manual.

Sequencing

The Service believes it is essential at all times to follow the step-by-step sequence for assessing remote indicators (hydrophytic vegetation first, hydric soils second, and hydrology last) as described in the draft SOSMs. Following this specific sequence is a very important part of building the scientific evidence necessary for making the most accurate and defensible wetland determinations via the "*preponderance of evidence*" concept noted in Circular #6, dated December 1, 2010. If a sampling unit is first determined to have positive remote indicators for hydrophytic vegetation, followed by positive remote indicators for hydric soils, there is strong scientific evidence that hydrology has been present, and as such, hydrology indicators (both field and remote) should be thoroughly examined as detailed in our earlier comments in the hydrology section.

Working in Partnership to Verify and Strengthen the Accuracy of Wetland Determinations

The Service has a wide variety of technical wetland resources and scientific capacity in the PPR. We offer to work in partnership with NRCS to help build additional scientific rigor into the new proposed SOSMs by providing NRCS with access to long-term wetland hydrology data sets that can be used to verify and strengthen the accuracy of wetland determinations. In the longer term, the Service also offers to work in partnership with NRCS and other stake-holders to explore the potential of annually acquiring growing season imagery that more closely correlates with the unique temporal and spatial hydrology patterns exhibited by wetlands throughout the PPR.