South Dakota Wetland Inventory
U.S. Fish and Wildlife Service
1:100,000 Map Narrative Report
Fargo NW

MAP PREPARATION

Contractor for this wetland inventory was the South Dakota Cooperative Fish and Wildlife Research Unit, P.O. Box 2206, South Dakota State University, Brookings, South Dakota 57007. Photointerpreters were Howard Browers, Paul Sand, Kris Sletten and Peggy Year. Preparation of this narrative report was completed by Kris Sletten. Regional Wetland Coordinator was Charles Elliot, U.S. Fish and Wildlife Service, Denver Federal Center, P.O. Box 25486, Denver, Colorado 80225.

Wetland delineation and classification for Fargo NW 1:100,000 quadrangle was done on 1:65,000 color infrared aerial photographs taken in May 1979. Photography covered almost 100% of the quadrangle. Classification of wetlands was done according to Cowardin et al. (1979). National Wetland Inventory mapping conventions were also used to assist in photointerpretation. Field checking for the quadrangle was done on 16 September 1983.

SPECIAL MAPPING PROBLEMS

The major problem encountered on the mapping of this quadrangle was that of drainage ditches. Shorter drainage ditches are not normally delineated as wetland, but because of the great length of some ditches on this quadrangle, the decision of whether or not to delineate them became difficult. It was decided that only those of substantial length (4 or 5 miles) should be delineated. Those ditches that had long stretches of considerable emergent vegetation would be classed

as emergent semi-permanent ($PEMF_x$). Otherwise, the classification would remain $R4SBF_x$.

A second problem encountered was differentiating the water regime (temporary vs. seasonal) on wetlands in plowed fields. It was decided that open water signatures would be classified as palustrine emergent seasonal (PEMC) when a strong, dark open water signature was present in a well-defined basin. A palustrine, emergent temporary (PEMA) classification would be used if there was a weaker, shallow appearing open water signature. Less well-defined basins, the fading out of the signature along the edges and scattered inclusions of upland within the wetland also indicated a temporary wetland.

WETLANDS

Lacustrine System

The most common call for lacustrine systems in the Fargo NW was L2ABG. These were characterized by a dark blue open water signature in a well-defined basin. Many of these basins were surrounded by a thin border of whitish clumped vegetation indicating cattail thereby calling for a PEMF border. One lacustrine system was classified as L2ABF. The basin exhibited a dark blue open water signature with a partial band of vegetation around the border. Intermittent water on the topographic map helped to classify it as lacustrine. The semi-permanent water regime was chosen for this wetland because of several trails or tractor paths leading into the wetland.

Riverine System

There were two main river systems in this quadrangle. The Sheyenne River was classified as R2UBH throughout. The Maple River was classified

as R4SBF in its upper reches and as R2UBG as the water became stronger.

Major drainage ditches with little emergent vegetation were classified as $R4SBF_x$. There were also some R4SBC's and R4SBA's along the Sheyenne River drainage.

Palustrine System

Emergent seasonal wetlands (PEMC) were usually characterized by a dark, blue open water signature in a well defined basin. Some seasonal wetlands displayed a smooth, even-toned white vegetated signature, differentiated from semi-permanents by a lack of clumping in the seasonals.

Emergent temporary wetlands were characterized by several signatures. Most had a dark gray signature in a well defined basin. Others exhibited a gray to white signature, with no clumping or standing water. Dark grayish signatures that were spread out and not confined to an identifiable basin were not considered wetland and were left as upland.

Palustrine emergent semi-permanent wetlands (PEMF) were characterized by the presence of a whitish gray clumped vegetative signature. Those wetlands that were mixed emergent and aquatic bed (PEM/ABF or PAB/EMF) had a blue open water signature with a border of cattail, clumps of white to gray vegetation scattered throughout the wetland or a few whitish colored clumps in the central portion of the basin. Oxbows and old channel remnants of the Maple and Sheyenne rivers were classified as palustrine aquatic bed (PABF).

Temporary forested wetlands (PFOA) were characterized by a dark gray or blue open water signature beneath the trees. PFOA was a common call along the boundaries of riverine systems on this quadrangle. Seasonal forested wetlands (PFOC), were identified by the presence of trees in a strong open water basin. Where trees occurred in river oxbows, these were classified as PFOC instead of PABF. Emergent and forested classes were mixed where

appropriate (EM/FO, FO/EM). A few scrub-shrub wetlands (PSSA or PSSC) were identified, in some cases as FO/SS.

Road ditches with weak water signatures were classified as $PEMA_x$ while ditches with stronger water were called $PEMC_x$. If clumping was present, road ditches were classified as $PEMF_x$. Occasionally, a ditch was classified as either $PFOC_x$ or PEM/FOC_x.

Drainage ditches were delineated only if they were extensive. Those with strong, mostly open water signatures were classified as $R4SBF_x$. Those containing a considerable amount of emergent vegetation were classified as PEM/ABF_x. There were a few with weak signatures that were classified as $PEMC_x$.

Gravel pits were classified as $PUBF_x$ and dugouts as $PABF_x$. Impoundments were classed as PABFh, PABGh, PAB/EMFh, PEM/ABFh or PFO/EMCh.

Vegetation commonly found in emergent seasonal basins (PEMC) included smartweeds (Polygonum spp.), reed canary grass (Phalaris arundinacea) and whitetop (Scolochloa festucacea). Emergent temporaries (PEMA) were dominated by sedges (Carex spp.), bluegrass (Poa palustris) and dock (Rumex spp.). Typical vegetation found in emergent semi-permanents (PEMF) were cattail (Typha spp.) and bulrush (Scirpus spp.). Typical aquatic bed (PABF) species were duckweed (Lemna spp.) and pondweed (Potamogeton spp.). Willows (Salix spp.) and cottonwood (Populus deltoides) were found in palustrine forested wetlands (PFOA, PFOC). More detailed descriptions of wetland vegetation in the Dakotas are provided in Stewart and Kantrud (1971, 1972), Fulton (1979), and Larson (1979).

References

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