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

Milbank SE

MAP PRESENTATION

Contractor for this wetland inventory was the South Dakota Cooperative Fish and Wildlife Research Unit, P.O. Box 2206, South Dakota State University, Brookings, SD 57007. Photointerpreters were Tara Wertz, Howard Browers and Brian Smith. Preparation of this narrative report was completed by Howard Browers. Regional Wetland Coordinator was Charles Elliott, U.S. Fish and Wildlife Service, Denver Federal Center, P.O. Box 25486, Denver, CO 80225.

Wetland delineation and classification for Milbank SE 1:100,000 quadrangle was done on 1:58,000 color infrared aerial photographs taken in April and October 1984. Photography covered 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 4 April 1988.

SPECIAL MAPPING PROBLEMS

Interpretation of this 1:100,000 was originally to be done on NASA 1:65,000 CIR. However, all of the NASA was taken in spring 1982 and exhibited depressed wetland conditions. The NHAP used to replace the NASA was taken in spring and fall 1984 and generally had better wetland conditions. The NASA photos were used as collateral data while interpreting the NHAP. Also, spring NHAP was used as collateral data to add a few more wetlands where both dates of ~~the~~ photography overlapped.

One problem encountered was the interpretation of the fall NHAP photography which made up 40% of the quad. Wetland conditions on the photos appeared good, however, the fall photography exhibits more vegetation and less surface water. This made water regime determinations more difficult, particularly C versus F. Some of the expansive wetlands which had areas of both C and F near Myers Lake on the Antelope Valley 7.5′ map are good examples. The result is some seasonal wetlands may have been labeled semipermanent and some semipermanent wetlands may have been labeled seasonal. Long shadows cast by trees on the fall photography also presented a problem. Again collateral data were used to determine if trees were in wetlands or on uplands.

Another problem was the extremely dry conditions of wetlands during field work (4 April 1988). Most seasonal and many semipermanent wetlands had no surface water. Temporary and seasonal wetlands had been plowed and were devoid of hydrophytes making it difficult to determine water regime. Also, wetlands on the NHAP photography seemed to exhibit lower water levels. Many basins showed evidence of plowing. However, unlike the NASA photography, a photosignature was almost always visible. The result of these two factors is that some seasonal wetlands may have been classified as temporary.

One final problem was the darkness of the spring NHAP photography. Linework and lettering were often difficult to see. This problem was especially evident when delineating large lakes with very dark, black photosignatures. The dark imagery sometimes made it difficult to

distinguish between temporary wetlands and ephemeral areas. Use of collateral data helped to reduce this problem.

WETLANDS

Lacustrine

The lacustrine system is well represented on the Milbank NE. The most prominent is Big Stone Lake on the South Dakota-Minnesota border--which was classified as L1UBHh with an L2ABGh zone above the 5 foot depth contour. Punished Woman's Lake was classified as L1UBG with an L2ABG zone above the 5 foot contour (data from Koth 1981). Other natural lakes were classified as L2ABG or L2ABF. The cooling reservoirs at Big Stone Power Plant were classified as L1UBHx.

Riverine

Numerous riverine wetlands are found on the Milbank SE. Several rivers and creeks such as Big Coulee Creek, North Fork of Yellow Bank River, and Whetstone River were classified as R4SBF. Some creeks and streams were classified as R4SBC or R4SBA. Intermittent streams in flatter areas generally supported emergent vegetation and were classified in the palustrine system.

Palustrine

Palustrine emergent temporary (PEMA) wetlands were most commonly found. Photosignatures included open-water, dark gray, light gray, grayish-white, and grayish-pink. Many of the wetlands classified as PEMA showed evidence of plowing.

Palustrine emergent seasonal (PEMC) wetlands exhibited open-water or white to grayish-white vegetated photosignatures.

Palustrine emergent and/or aquatic bed semipermanent wetlands (PEMF, PABF, PEM/ABF, PAB/EMF) exhibited white or gray clumped vegetation, dark, open water or a mixture of clumped vegetation and open water. Some open water semipermanents were classified as emergent based on NASA photos used as collateral data. Some open water areas within semipermanent vegetation were classified as PABG.

Palustrine emergent saturated (PEMB) wetlands exhibited grayish-white signatures. Palustrine scrub-shrub (PSSB) wetlands had dark gray photosignatures. Saturated wetlands were found in areas of high relief underlain by Rauville Mucky Silt Loam. Not all areas of Rauville soil were classified as saturated; some were classified as temporary, seasonal, or semipermanent.

Other forested or scrub-shrub wetlands were classified as temporary (PFOA, PSSA) or seasonal (PFOC, PSSC). Temporarily flooded trees or shrubs were usually found on the outer edge of a PEMC or PEMF wetland. A number of PFOA wetlands were delineated in floodplains of rivers and creeks. Seasonal trees or shrubs were within PEMC or PEMF wetlands. Seasonal signatures were generally darker than temporary signatures.

Dugouts were classified as PABFx. Impoundments were classified as PABFh or PABGh. Different classes and water regimes within the impoundment were also classified as impounded (e.g. PEMFh, PEMCh).

Road ditches were classified as PEMCx or PEMAx. Large drainage ditches were classified as PEMCx or PEMFx. Gravel pits were generally

classified as PUBFx, PEMCx, or PSSCx. Sewage lagoons were classified as PABFx or PABGx.

Plants commonly found in wetlands on the Milbank NE were:

PEMA

foxtail barley	*Hordlum jubatum*
bluegrass	*Poa* spp.
sedges	*Carex* spp.
prairie cordgrass	*Spartina pectinata*

PEMC

smartweeds	*Polygonum* spp.
spikerushes	*Eleocharis* spp.
reed canary grass	*Phalaris arundinacea*
phragmites	*Phragmites australis*

PEMF

cattail	*Typha* spp.
bulrushes	*Scirpus* spp.
phragmites	*Phragmites australis*

PEMB

cattail	*Typha* spp.
sedges	*Carex* spp.
bulrushes	*Scirpus* spp.

PSS

willow	*Salix* spp.
red-osier dogwood	*Cornus stolonifera*

PFO

willow	*Salix* spp.
cottonwood	*Poulus deltoides*

More detailed descriptions of wetland vegetation in the Dakota's are provided in Stewart and Kantrud (1971, 1972), Fulton (1979) and Larson (1979).

REFERENCES

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