

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

Thief River Falls 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, SD 57007. Photointerpreters were Debbie Henry and Tara Wertz. This report was prepared by Tara Wertz. 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 of the Thief River Falls NW 1:100,000 quadrangle was done on 1:65,000 NASA infrared photography taken 4 June 1987. Photography covered 100% of the quadrangle. Classification of wetlands was done according to Cowardin et al. (1979). National Wetlands Inventory mapping conventions were used to aid in photointerpretation. Field checking was done 20 June 1987.

Special Mapping Problems

There has been an enormous amount of drainage in the eastern 2/3 of the quad. Small, isolated areas of trees located on hydric soil were extremely difficult to determine if the trees were actually wet due to the amount of water manipulation in surrounding areas.

Delineation of wetlands in plowed fields was difficult. Much of the Red River Valley is underlain by hydric soil. Large, dark gray areas were evident on the photo. Because of drainage and farming

practices, it was difficult to tell if these areas should be considered wetlands. Temporary (PEMA) delineations were usually restricted to the darker, more basin-oriented portions of these signatures.

Over the western 1/3 of the quad, the majority of the wetlands were more basin-oriented. Some areas consisted of extensive sections of hydric soil, parts of which had been plowed. The upland/wetland boundary was hard to distinguish in these sites, especially in forested areas. Available soil surveys were used to help determine upland/wetland boundary.

Riverine Systems

Intermittent and lower perennial subsystems are found in the quad. Water Resources Data for North Dakota (1979, 1985) aided in classification. The Red River had previously been classified a R2UBH. The Pembina was classified as R2UBG, as was the Tongue River below Renwick Dam.

The remaining riverine wetlands were classified as intermittent, R4SBF, R4SBC, and R4SBA. Occasionally, the "x" modifier was added to channelized portions or county drainage ditches.

Lacustrine Systems

North Salt Lake was the only natural lake on the Thief River Falls NW and was classified as L2ABG. Other lakes were impounded and had an "h" modifier added. Some of the larger impoundments were delineated as L1UBHh. An example of this is in Icelandic State Park.

Palustrine Systems

The majority of the wetlands found on the quad were palustrine. On the eastern 2/3 of the quad, wetlands were almost exclusively temporary (PEMA) and had a "d" modifier added in most cases. Most signatures were light blue or gray, while some had a darker blue, open water signature. In areas which were not plowed the signatures ranged from a dark pink to a light red. Most other wetlands in this part of the quad were road ditches (PEMCx) and county ditches (PEMFx). County ditches were generally much larger, had more vegetation present and were found to be overrun with cattail (Typha spp.) when field checking was done.

Seasonal wetlands (PEMC) were frequently found in the western 1/3 of the quad. These signatures ranged from a dark blue to black, open water signature. In extensive areas of low prairie, seasonals were found to have smooth-toned white or red signatures.

Wetlands with greenish-white, clumped, vegetational signatures were classified as semi-permanent (PEMF). Open water areas less than 20 acres found in these situations were called PABF.

Palustrine scrub-shrub wetlands were numerous throughout the area, often interspersed in forested sites. When water was clearly apparent under the canopy on the photograph, these were classified as PSSC, PFOC, PSS/FOC, or PFO/SCC. If water was not apparent, but hydric soil was identified there, or if the USGS showed marsh symbols these were usually classified as PSSA, PFOA, PSS/FOA, or PFO/SSA. A "d" or "x" modifier was added to identify areas which had been drained or excavated.

Dugouts and sewage lagoons less than 20 acres in size were classified as PABFx. Impoundments less than 20 acres were labelled PABFh. Gravel pits were called PUBFx unless they were vegetated, in which case they were classified PSSCx, PSS/FOCx, PEM/FOCx or PEM/SSCx.

The following is a list of commonly found plant species and their classification:

PEMA

spikerush	<u>Eleocharis</u> spp.
blue grass	<u>Poa palustris</u>
dock	<u>Rumex</u> spp.

PEMC

smartweed	<u>Polygonum</u> spp.
reed canary grass	<u>Phalaris arundinacea</u>
whitetop	<u>Scolachloa festucacea</u>
water plaintain	<u>Glyceria</u> spp.
mannagrasses	<u>Alisma plantago-aquatica</u>
glasswort	<u>Salicornia rubra</u>

PEMF

cattail	<u>Typha</u> spp.
hardstem bulrush	<u>Scirpus acutus</u>
river bulrush	<u>Scirpus fluviatilis</u>

PABF

bladderworts

Utricularia spp.

PSS

willow

Salix spp.

red osier dogwood

Cornus stolonifera

PFO

willow

Salix spp.

cottonwood

Populus deltoides

References

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