

QUADS (7.5') WITH CHECK SITES:

Braddock NW	Moffit
Burnt Butte	Moffit SE
Clear Lake	Sibley Butte
Driscoll	Solberg Butte
Fort Rice	Sterling
Huff NE	Stony Slough
Keever Butte	Sugarloaf Butte
Lake Geneva	
McKenzie	
McKenzie NW	
Menoken	

PERSONNEL:

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PHOTOGRAPHY:

1 : 65,000 color infra-red taken May 16, 1979

COLLATORAL DATA:

USGS 1 : 24,000 topographic maps
Stewart and Kantrud, 1971. "Classification of Natural Ponds and Lakes
in the Glaciated Prairie Region."
SCS Soil Survey of Burleigh and Emmons counties, North Dakota.

OVERVIEW:

Quadrangle data
Bismarck NE is located in south-central North Dakota. The area is bisected by the Missouri River and Oahe reservoir complex. The portion of the area to the west of the Missouri contains numerous seasonal stream systems and occasional perennial rivers. Stock dams, reservoirs, and dugouts are also numerous. Wetland densities become higher to the east of the Missouri with the highest density areas in the northeast and eastern areas of the Bismarck NE.

BIOLOGICAL CHARACTERISTICS OF WETLANDS:

Marine: Not present

Estuarine: Not present

Riverine: Numerous intermittent and occasional perennial systems (~~seasonal~~) contain emergent growth and ~~will~~^{are} be labeled PEMC. Along semipermanent streams emergent growth (Typha sp. and Scirpus sp.) is occasionally visible and ~~will~~^{is} be labeled PEMF or PEM/UBF. When emergent growth is not visible, ~~but~~^{are} with "strong" water conditions ~~and~~ R4SBF may be used. Water regimes ~~to be~~ used include seasonal, semi-permanent, intermittently exposed, and permanent.

Lacustrine: Occasional open water bodies greater than 20 acres are present. Classifications ~~will~~ include L1UBH, L2UBG, L2UBF, L2USC. L1 may also be used with a G water regime if additional information is available to indicate water depth of greater than 2 m. L2USC will be used on exposed shorelines along lakes and reservoirs.

Normal pool elevation for Lake Oahe is 16084 ^{feet}. Below this elevation L1UBH ~~will~~^{is} be used with an h ^{spec}/modifier. Water regimes ~~to be~~ used in the Lacustrine system include seasonal, semipermanent, intermittently exposed, and permanent.

Palustrine: The majority of the wetlands ~~will~~^{are} be identified in the palustrine system. Classes used include emergent, forested, scrub-shrub, unconsolidated bottom, and unconsolidated shore. Most wetlands in the palustrine system ~~will~~ support emergent vegetation and ~~be~~^{are} labeled PEM. Wetlands labeled PEMF are identifiable based on the known Typha sp. and Scirpus sp. signature. Most wetlands labeled PEMC exhibit an open water signature but field checks have shown these to contain emergent vegetation. Occasionally a seasonal wetland dominated by Scolochloa festucacea shows an emergent signature, however the signature is different enough to be classified correctly as PEMC rather than PEMF. Water regimes ~~to be~~ used include temporary, seasonal, semipermanent, and intermittently exposed.

IMAGERY, DELINEATIONS, FIELD CHECKING:

The resolution of the photography is excellent so the number of missed wetlands should be very low. High water conditions at the time of the photography will result in a large number of wetlands being delineated. ~~Occasionally a basin shows inflated water conditions and many of these~~

Need further discussion on species of veg.

Temporary wetlands?

Occasionally, a basin shows inflated water conditions and many of these are located on overflow sites on Heil soils. Under these conditions temporary wetlands may be labeled PEMC due to high water.

The majority of the farmed wetlands will be labeled PEMU. If the wetlands show very strong water conditions, it will be labeled PEMC. Very subtle farmed signatures may be labeled PEMA.

The most complex area of the Bismarck NE involves the Missouri River and Lake Oahe. The normal pool elevation of Lake Oahe at 1608 is being used as the break-off point between the Riverine and Lacustrine systems. Wetlands below this point are labeled with the impounded modifier.

Emergent growth in and along stream channels may cause a problem with interpretation. ~~Heavy~~ dense Typha sp. and Scirpus sp. growth can choke a channel completely. On the photography this growth exhibits a signature very similar to temporary growth (Spartina). If no water is visible and the semipermanent growth is tightly packed (no clumping pattern visible) an error in water regime may result. Check sites with these similar signatures will be studied by the interpreters in order to more confidently make ^{decisions} these calls.

Several minor problems exist in interpretation that will be solved with additional information. Fish and Wildlife Service personnel will be supplying additional data on Heil and Rhoades soils, and stream flow data.

SUMMARY:

The photography is of excellent quality. Timing of the photography and wet conditions means a large percentage of wetlands will be identified. Slight problems exist in the use of the corret^{er} water regime.

*See comments for
McCluskey SE*