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MEMORANDUM

To: Assistant Regional Director, Habitat Resources, FWS, Region 6, Denver, Colorado

Through: Chief of Technical Services, Habitat Resources

From: Assistant Regional Wetland Coordinator, FWS, Region 6, Denver, Colorado

Subject: Field Trip Report to Nebraska Sandhills--September 26-October 6, 1983

From September 26-October 6, Chuck Elliott and I met with Steve Mortellaro, Les Vilchek, and Mike Colby from Martel Laboratories to review photography for the Nebraska Sandhills National Wetland Inventory mapping effort. The purpose of the trip was (1) to review recently annotated photography from Alliance SE and O'Neill SE, and (2) to ground truth photography for remaining portions of the Nebraska Sandhills.

Prior to the field trip, individual photos from Alliance SE and O'Neill SE were selected for photo enlargements which ultimately will be the draft map stage for the Nebraska Sandhills project. Previously there was concern that photo enlargements would be difficult to read because of the complexity of wetland delineation in the Sandhills. Although wetland density is high on the selected photo enlargements, the maps are legible. Based on field review, certain changes are necessary to increase accuracy for Alliance SE and O'Neill SE. These changes are:

Alliance SE

(1) Deletion of certain PEMA polygons surrounding or adjacent to either lacustrine systems or semipermanently flooded palustrine systems (PEMF or PABF); polygons to be deleted are even toned light gray signatures; in some cases PEMA delineation will be reduced to darker blue/gray portions.

(2) Although light gray tones will be deleted as PEMA in flat, nondepression areas (see #1), the same tone will be identified as PEMA in basin depressions.

(3) Pure white signatures should be identified as PEMC; occasionally this white tone to be identified as PEMC occurs in combination with a gray mottling.

(4) Dark blue, open water, nonvegetated signatures will be identified as PEMC unless (1) topo indicates intermittent water; in this situation polygon will be identified as PEMF; (2) topo indicates permanent water; in this case polygon will be identified as PABF; or (3) dark blue central zones surrounded by a white polygon will be identified as PUSC.

(5) Turquoise blue signatures less than 20 acres often with white borders will be identified as PUSC.

(6) Gray signatures, normally associated as PEMA, which are immediately adjacent to open water (either palustrine or lacustrine aquatic beds) will be identified as PEMC.

O'Neill SE

(1) Identification of PEMA in mottled fields should be restricted to actual mottling. Delineation of the PEMA's will occur in both hayed and nonhayed fields. A statement will have to be made in the user's notes that there will be upland inclusions within the delineation.

(2) The signature of willow is nearly identical to the signature of cattail. Cattail is more likely to occur in basins, whereas willow is more frequently found associated with riverine systems. Photointerpreters should use these tendencies in interpretation.

(3) Red tones and gray tones in sandhill depressions will be identified as PEMC.

General comments on remaining quads:

(1) At certain locations in Broken Bow NE, red tones in sandhill depressions were not wet (species-little bluestem dominant). These basins will be identified as PEMC because it is impossible to distinguish them from basins near O'Neill which are legitimate seasonally flooded basins. This situation in Broken Bow NE was found to occur infrequently.

(2) Signatures for photography from North Platte NE generally appeared to be one water regime low. Basins containing solid bullrush and/or cattail (semipermanent indicators) appeared as solid blue open water seasonal signatures. These basins will be identified as semipermanent if there is any hint of semipermanent vegetation present on the photo or if the open water signature is surrounded by a dark gray tone indicative of seasonal vegetation.

(3) Several white tones were observed. A summary follows:

(a) Smooth textured, white tones are upland.

(b) Bright white or ivory tones usually linears or narrow bands surrounding open water are PEMC.

(c) White tones in drained fields are upland.

(d) White tones, which are usually mottled, in undrained fields are PEMA.

(e) White tones in a cloned pattern indicative of cattail are PEMF. A problem arises when cattail or hardstem bullrush is densely packed and results in a solid white signature. In this instance the cattail signature appears identical to a temporarily flooded emergent signature. United States Geological Survey topographic maps may be helpful in resolving this discrepancy.

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