WESTERN NEBRASKA PHOTO INTERPRETATION

Scottsbluff NW, Scottsbluff SW, Scottsbluff SE
Alliance NW, Alliance SW
McCook NE

Photo Interpretation Mapping Conventions

Field Reconnaissance Conducted September 8-16, 1991

General Linear Conventions

Linears will be delineated based on photo signature and available field notes. Where a PEM drainageway disappears (has no signature) through a field, that segment will not be delineated. Forced connections will be made for segments only a pen dash or two in length. Covertypes will be broken where appropriate. Numerous "short segments" of covertype changes will be avoided when possible.

Lacustrine System

All lacustrine systems will be greater than twenty (20) acres, or in the case of mining and borrow pits have a depth of greater than two (2) meters regardless of size. Those areas influenced by impoundments will carry the impounded "h" modifier.

L1UBH - Limnetic, unconsolidated bottom, permanently flooded. Use for large lakes with an open water signature over twenty (20) acres.

L1UBHh - Limnetic, unconsolidated bottom, permanently flooded, impounded. Use for impoundments with an open water signature over twenty (20) acres.

L1UBGx - Limnetic, unconsolidated bottom, intermittently exposed, excavated. Use for mining and borrow pits with a depth of two (2) meters or greater regardless of size.

Riverine System

Photo signature will dictate the appropriate water regime. Where a signature is inconclusive, the 1990 U.S.G.S. Water Resource Book for Nebraska will be consulted.

R3UBF - Upper perennial, unconsolidated bottom, semipermanently flooded. Classification characterized by a high gradient and fast water velocity to be found in the Pine Ridge area of Alliance NW.

R2UBH/G - Lower perennial, unconsolidated bottom, permanently flooded/ intermittently exposed. These rivers are low gradient with a wide developed floodplain. Signature is open water. Most are shown as double line, polygon sized rivers on the topo. These will be delineated as polygons when photo signature dictates.

R2UBF - Lower perennial, unconsolidated bottom, semipermanently flooded. Classification to be used for braids off the main channel of R2UBH/G rivers. Also used for entrenched streams and small rivers with a continuous open water signature.

R2USC/A - Lower perennial, unconsolidated shore, seasonally/temporarily flooded. Use for sand/mud flats and shallow braids in and along lower perennial rivers. R2USC signature will vary from light blue to a light gray. R2USA signatures will be chalky white substrate.

R4SBC/A - Intermittent, streambed, seasonally/temporarily flooded. Streambeds will be classified by photo signature. The R4SBC streambed is entrenched and shows sporadic water. The R4SBA consists of a chalky white to gray signature with a slightly entrenched streambed. The "x" modifier will be used where it is evident the stream channel has been altered by man.

Irrigation Canals - Irrigation canals were used extensively in this area to move water to the fields. Delineate canals according to signature and size.

R2UBGx - Lower perennial, unconsolidated bottom, intermittently exposed, excavated. All major polygon sized canals will be labeled R2UBGx. Signature will be open water.

R2UBFx - Lower perennial, unconsolidated bottom, semipermanently flooded, excavated. This delineation will be used only when field notes apply. Signature will be open water and not quite polygon size.

R4SBCx - Intermittent, streambed, seasonally flooded, excavated. Use a dashed linear for this delineation. Photo signature should be open water during the growing season for crop irrigation then dry in the winter.

PEMCx - Palustrine emergent seasonally flooded, excavated. These small ditches move water through fields and show an emergent signature. Roadside ditches with a seasonal emergent signature will also be labeled PEMCx.

Palustrine System

PEMA - Emergent, temporarily flooded.

Linears - A majority of the drainages in the field were considered upland. The temporary signature was not entrenched and consisted of a thin red slightly dark line in the bottom of the drainage. They are more evident in comparison to the upland grassy waterways that give a wide mono-tone red to pink signature. PEMA linears will be pulled out as segments wherever a photo signature exists and will not necessarily show hydrologic connection (e.g. where a drainage disappears through a plowed field or if a wetland is confined to short segments or pockets within an upland drainage). Forced connections will only be made for short segments of one or two pen dashes.

Polygons - Signatures that appear in fields, generally show a return of bright pink to faded pink and a light green and light rusty brown on a majority of the photography. Basins were often extremely hard to identify. The signature ranges from faint white to light gray and some black. A majority of the basins in agricultural fields were found to be temporary in water regime. On high water photography some temporary basins showed a high degree of reflectance. Soil surveys and depression contours on topos will be used extensively to find the light white and gray basins. Areas with distinct dark round basin shaped signatures will be pulled regardless of the need for depression contour on topo. Some saline areas that are typically called PUSA were dominated by emergents and a decision was made to label them PEMA.

PEMAh - Same as polygons above but impounded. Signature is light pink to red in color.

PEMC - Emergent, seasonally flooded.

<u>Linears</u> - Signatures appear as thin green to dark rusty brown and black lines down the center of a drainage. Segmented delineations will be consistent with the temporary convention.

<u>Polygons</u> - To be found as basins in fields, along rivers, creeks, oxbows and swales. Signatures will range from darker browns and deep reds to solid blacks. Clumpy areas in pasture lands with brown to greenish signature mixed with pink mottling will also be considered seasonal. All delineations will generally be darker and more mottled than temporary returns.

PEMCh - Same as above polygons but impounded. Signature darker in comparison to temporary emergents.

PEMCx - Same as above PEMC linears, will be used for irrigation and road ditches showing a seasonal signature.

PEMB - Emergent, saturated. These generally will be located on the down-hill side of impoundments, slopes, seeps, and springs. Dark red to black signatures.

PEMF - Emergent, semipermanently flooded.

<u>Linears</u> - Many PEMF braids occurred in the lower perennial river channels and show a return of dark reddish brown. Another signature is a light whitish green found to be cattail in wide excavated ditches. Some thick cattail linears did run through fields between PEMF polygons. This return shows a fluffy green.

<u>Polygons</u> - Signature in lower perennial river channels show dark red and some black mottling with a fluffy textured appearance. This signature also can be found in swales, oxbows, and impoundments. Polygons in fields that were full of cattail and <u>Scirpus</u> <u>acutus</u> had a greenish white signature that was slightly darker than the seasonal <u>Scirpus</u> <u>americanus</u> that typically bordered it.

PEMFh - Emergent, semipermanently flooded, impounded. Typically dark red to black in the backwater of the impoundments.

PABF - Aquatic bed, semipermanently flooded. Areas include natural ponds, oxbows, pockets in swales, and some drainages. Signature is bright pink to a bright whitish pink. Use PABF for all small lakes and ponds.

PABKx - Aquatic bed, artificially flooded, excavated. Classification will be used for water treatment facilities with an open water or aquatic bed signature.

PABFx/h - Aquatic bed, semipermanently flooded, excavated/impounded. The "x" modifier will be used on small man-made ponds with an open water or aquatic bed signatures. The "h" modifier will be used with impounded areas of open water or aquatic bed.

PUSA - Unconsolidated shore, temporarily flooded. This signature tends to be in areas of high saline concentration due to the irrigation of nearby crops. Some of these saline areas were dominated by emergents. PUSA will be used for all other appropriate areas with a chalky white signature.

PUSA/Ch - Unconsolidated shore, temporarily/seasonally flooded, impounded. Temporaries will be a whitish signature. Seasonals will show some shallow water present with a light blue signature.

PUSCx - Unconsolidated shore, seasonally flooded, excavated. Use for dugout farm ponds in McCook NE that have a light blue to grey signature.

PUBFx - Unconsolidated bottom, semipermanently flooded, excavated. These will be dugout farm ponds and level drains in drainage ways with substantial water present.

PSSA - Scrub-shrub, temporarily flooded.

<u>Linears</u> - These are found down in drainages and streambeds. Typically they return pinkish to dark red.

<u>Polygons</u> - Typically found on river floodplains and between braids of its river channel. Often found in the backs of impoundments and would receive the "h" modifier. The signature is basically the same as above linears.

PSSC - Scrub-shrub, seasonally flooded. This delineation can be used around reservoirs and the backs of some impoundments. When under the influence of impoundments use the "h" modifier. The signature will be a deep red with a dark understory.

PFOA - Forested, temporarily flooded. Species consisted mainly of Eastern cottonwoods and willow. Most PFOA was found in drainages and between braids of lower perennial rivers. The signature to look for will be the fluffy tight crowns. Care must be taken to follow the contours along river banks where they apply.

PFOAh - Forested, temporarily flooded, impounded. Look for dark red cottonwood and willow in the backs of impoundments.

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