

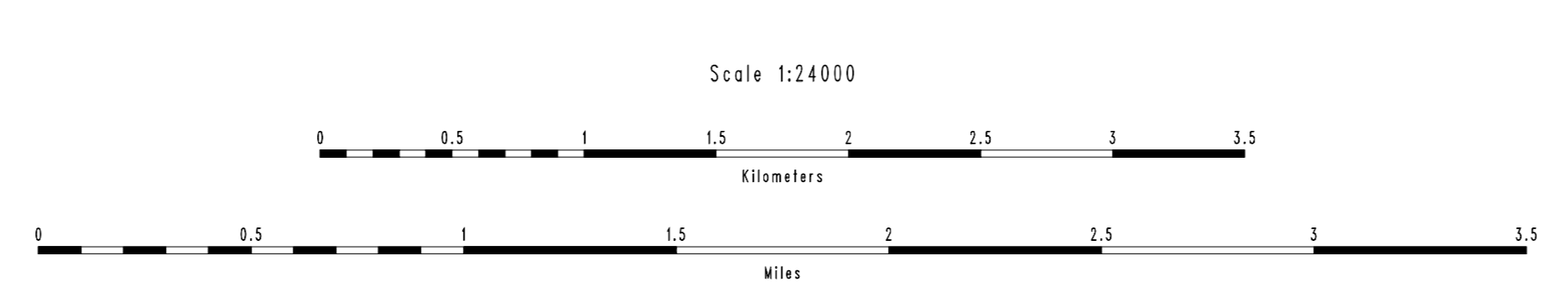
Explanation (geologic sequence) of Wetlands and Deepwater Habitat

<p>HIGHLAND FEATURES, MATERIALS</p> <p>-Proterozoic</p> <p>Hym - Metasedimentary rocks (mostly argillaceous) of the Belt Supergroup</p> <p>-Miocene</p> <p>HMy - Basin (Columbia River Basalt Group)</p> <p>HMs - Semi-consolidated alluvial and lacustrine sediments</p> <p>-Quaternary</p> <p>-Pleistocene</p> <p>HQd - Pelecce loess (old dunes)</p> <p>-Holocene</p> <p>HQs - Landslide debris</p> <p>HQnd - Mudflow deposit, across Highland Upland transition</p> <p>HQs - Holocene to Present</p> <p>HQs - Alluvium of tributary stream</p> <p>-Present</p> <p>HUf - Highland Upland transitional area, intermittently flooded</p> <p>-Upper Perennial Riverine Features</p> <p>Rm - Pre-mining era sediments</p> <p>Rg - Gravel bottomed channel</p> <p>Rgh - Gravel bar</p> <p>Rhw - High-water channel (overflow channel, active during floods)</p> <p>-Alluvial Features</p> <p>Ust - Alluvial terrace - undivided</p> <p>Ut4 - Alluvial terrace - fourth-level terrace (highest and oldest)</p> <p>Ut3 - Alluvial terrace - third-level terrace</p> <p>Ut2 - Alluvial terrace - second-level terrace</p> <p>Ut1 - Alluvial terrace - first-level terrace (lowest and youngest)</p> <p>-Channel Scars</p> <p>Usc - Channel scar (partly filled trace of an abandoned river or overflow channel)</p> <p>Ust - Channel scar (natural levee adjacent to a channel scarp)</p> <p>-Natural Levees and Meander Scuffs</p> <p>Uls - Levee sand (sand wash-over deposit on a natural levee)</p> <p>-Palustrine Features</p> <p>PEc - Marshy area with Emergent vegetation (common reed)</p> <p>PEs - Marsh with Emergent vegetation, seasonally flooded</p> <p>PEe - Marsh with Emergent vegetation, perennially saturated to flooded</p> <p>PEa - Marsh with > 30% of Aquatic vegetation</p> <p>POw - Small pond with Open water</p> <p>-Lower Perennial Riverine Features</p> <p>Rm - Pre-mining era sediments</p> <p>Rcb - Central sand bar</p> <p>Rb - Sand bottomed channel (includes sand bars, bottom fill, point bars)</p> <p>Rst - Sand bar beach (subaerial at summer water level)</p> <p>Rsw - Bank wedge of sand enriched with gravel (located between riverbank to levee top)</p> <p>-Tributary Features</p> <p>Rstc - Tributary stream with wide, riverine channel</p> <p>Ustc - Tributary stream, including channel and floodplain</p> <p>Ustc - Tributary stream, with blocked channel and floodplain</p> <p>Pstc - Tributary stream, including channel and floodplain</p> <p>Pstc - Tributary stream, with blocked channel and Palustrine natural areas with Emergent vegetation</p> <p>-Palustrine Features</p> <p>Ustc - Emergent vegetation, seasonally flooded, farmed</p> <p>Ustc - Emergent vegetation, seasonally flooded, artificially drained, farmed</p> <p>Ustc - Emergent vegetation, seasonally flooded</p> <p>Ustc - Emergent Terrestrial vegetation (Scrub-shrub, grass, seasonally flooded)</p> <p>Ustc - Emergent vegetation (common reed predominant)</p> <p>Ustc - Emergent vegetation, semi-permanently saturated, but artificially drained, farmed</p> <p>Ustc - Emergent vegetation, semi-permanently saturated to flooded</p> <p>Ustc - Emergent vegetation, perennially saturated to flooded (thorvald reed predominant)</p> <p>Ustc - Emergent vegetation, perennially saturated to flooded (low reed predominant)</p> <p>-Palustrine Habitats with Emergent Vegetation</p> <p>PEa - Emergent > Aquatic Vegetation (thorvald reed predominant)</p> <p>PEa - Emergent and lesser aquatic vegetation</p> <p>PAT - Aquatic and Terrestrial (Aquatic peat moss, submergent Terrestrial vegetation)</p> <p>PAE - Aquatic and lesser Emergent vegetation</p> <p>PA - Aquatic, with > 30% of aquatic vegetation at the surface</p> <p>PAP - Aquatic, non-permanent vegetation</p> <p>-Palustrine Habitats with Open water</p> <p>POw - Open water</p> <p>-Lacustrine Habitats of Lateral Flood Basins</p> <p>Lit - Littoral, Aquatic, with > 30% of aquatic vegetation</p> <p>Litap - Littoral, Aquatic, non-permanent vegetation</p> <p>LitE - Littoral, Aquatic, emergent vegetation</p> <p>LitEw - Littoral, Emergent, non-permanent vegetation</p> <p>LitOw - Littoral, Open water</p> <p>Litw - Littoral, Aquatic, with > 30% of aquatic vegetation</p> <p>Litw - Littoral, Aquatic, non-permanent vegetation</p> <p>Litw - Littoral, Aquatic, submergent vegetation</p> <p>Litw - Littoral, Emergent, non-permanent vegetation</p> <p>Litw - Littoral, Open water, < 10 m deep</p> <p>Litw - Littoral, Open water, > 10 m deep</p> <p>-Dredge Spoils</p> <p>Adsk2 - Dredge spoil dike - highest</p> <p>Adsk1 - Dredge spoil dike - high</p> <p>Adsk3 - Dredge spoil - upper subaerial unit (sand, sparse grass)</p> <p>Adsk1 - Dredge spoil - lower subaerial unit (sand, locally vegetated)</p> <p>AdskE - Dredge spoils - Palustrine Emergent vegetation (common reed, seasonally saturated to flooded)</p> <p>AdskE - Dredge spoils - Palustrine Emergent vegetation, semi-permanently saturated to flooded</p> <p>AdskE - Dredge spoils - Palustrine Emergent vegetation, perennially saturated to flooded</p> <p>AdskE - Dredge spoils - Lacustrine Littoral, Aquatic vegetation</p> <p>AdskE - Dredge spoils - Lacustrine Littoral, Aquatic vegetation</p> <p>-Cuts</p> <p>Ac - Cut</p> <p>Acw - Cut, in dredge spoils, taken for 1-90 fill</p> <p>Ac - Cut, for rock quarry</p> <p>Ac - Cut, for clay mine</p> <p>Acgr - Cut, for gravel pit, water filled</p> <p>Acw - Cut for water reservoir or pond</p> <p>Ac - Canal</p> <p>Ad - Ditch (wide)</p> <p>Asd - Sand spay associated with ditch from river to floodplain</p> <p>At - Fill</p> <p>Adk - Fill, dredge spoils on 150 road embankment</p> <p>Adk - Dike</p> <p>Adsk - Dike, with adjacent, parallel ditch or ditches</p> <p>Adsk - Dike, submerged</p> <p>Al - Levee (man-made)</p> <p>Ap - Pier, man-made, with fill and/or other materials</p> <p>-Roads, Railroads</p> <p>Rd - Roadbed (includes cuts and fills, except where shown separately)</p> <p>Arr - Railway roadbed (includes cuts and fills)</p> <p>-Linear Features</p> <p>Linear features, mapped as lines or pairs of lines, include bridges, culverts, narrow ditches, artificial resting mounds and connecting canals, riprap, pump stations, and bank-line fillings</p> <p>Bridge, paired lines indicate the left and right side of a bridge</p> <p>Contact - Approximate boundary between mapped units</p> <p>Drainage Ditch (center line)</p> <p>Stream, intermittent (center line)</p> <p>Stream, perennial (center line)</p> <p>Boundary of mapped area</p> <p>Culvert</p> <p>Dredge-spoil dike, narrow (center-line)</p> <p>Remnants of historic dikes and fillings built to prevent bank erosion. Line represents former wall position, not point location of remaining pilings</p> <p>Cutbank, High, > 1 meter (hachures point up the bank) and connecting canals</p> <p>Cutbank, Low, < 1 meter (hachures point up the bank)</p> <p>Rip Rap - Broken rock placed to prevent bank erosion</p> <p>Waterfowl nesting mounds, with surrounding mounds</p> <p>Surfactwater pumping station</p>	<p>References</p> <p>Crawford, L.M., Carter, Virginia, Grier, J.C., and LaFlore, E.T., 1979. Classification of wetlands and deepwater habitats of the United States: U.S. Dept. of the Interior, Fish and Wildlife Service, Office of Biological Services, FWS/OBS-79/31, 131 p.</p> <p>Orlitz, A.B., 1973. Geologic map of the Spokane quadrangle, Washington, Idaho, and Montana: U.S. Geological Survey Map 735, scale 1:250,000 (reprinted 1981).</p>
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Digital Map of Surficial Geology, Wetlands, and Deepwater Habitats, Coeur d'Alene River Valley, Idaho (west half)

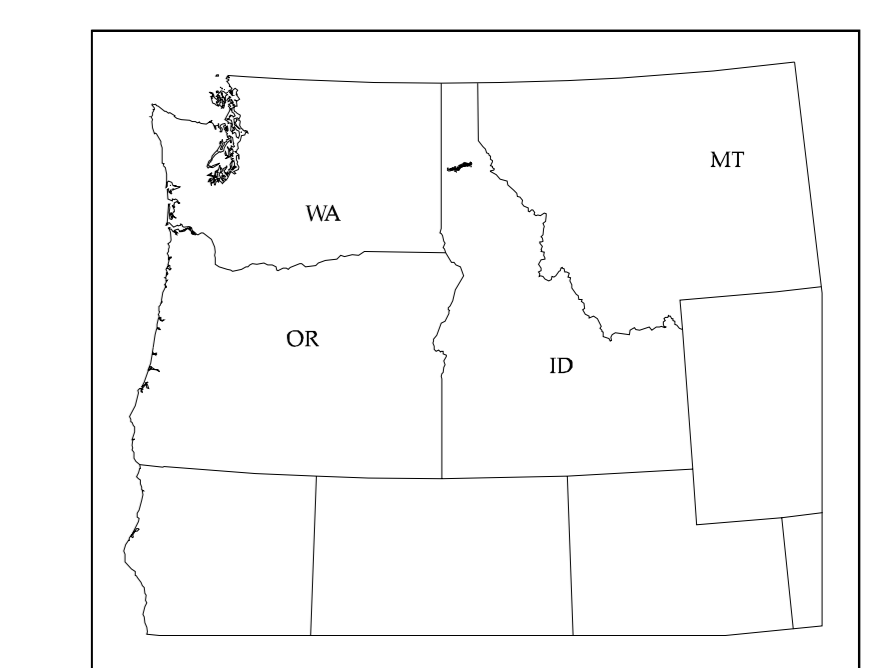
by Arthur A. Bookstrom, Stephen E. Box, Berne L. Jackson, Theodore R. Brandt, Pamela D. Derkey, and Steven R. Munts

1999



Map units were mapped using the following basemaps:
U.S. Geological Survey, 1981, 1985, 7.5 minute series topographic maps: 1:24,000 scale, 40 ft contour interval, 1981 series: Mt. Coeur d'Alene; 1985 series: Harrison, Lane, Melimont, 1985 series: Cataldo, Rose Lake.
U.S. Geological Survey, 1980, 7.5 minute series orthophotoreads: 1:24,000 scale, based on 1:87,000 scale aerial photographs taken June-July, 1980, corrected to match the corresponding USGS topographic maps.

Geology and wetlands mapped by A.A. Bookstrom and S.E. Box (1999) through 1998; Digital representation by B.L. Jackson, T.R. Brandt, S.D. Derkey, and S.R. Munts (1997-1999). Map-unit classification scheme modified from Cowardin and others (1979). Highland geology from Briggs (1978).



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