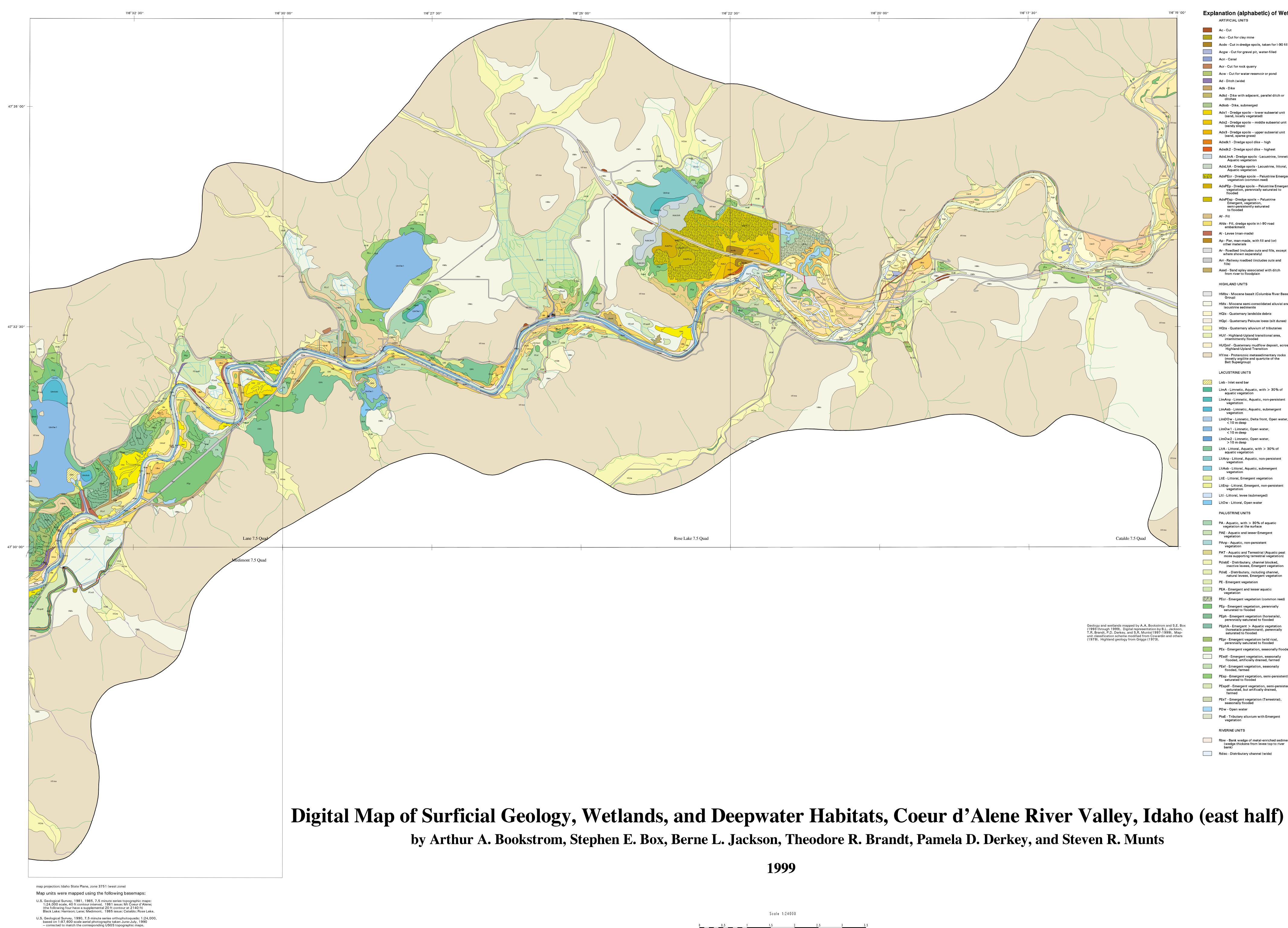


U.S. DEPARTMENT OF THE INTERIOR science for a changing world U.S. GEOLOGICAL SURVEY



Prepared in cooperation with the COEUR D'ALENE TRIBE



Kilometers Miles

OPEN-FILE REPORT 99-548 Sheet 1 of 11, Version 1.0

	Ac - Cut		Rgb - Gravel bar
	Acc - Cut for clay mine		Rhc - High-water channel (active during floods)
	Acds - Cut in dredge spoils, taken for I-90 fill		Rmsb - River-mouth sand bar Rpm - Pre-mining-era sediments
	Acgw - Cut for gravel pit, water-filled		Rs - Sand-bottomed river channel (includes
	Acn - Canal Acr - Cut for rock quarry		bottom-fill, lateral bars, point bars) Rsb - Sand bar beach (subaerial at summer water
	Acw - Cut for water reservoir or pond		level) Rscb - Central sand bar
	Ad - Ditch (wide)		
	Adk - Dike		UPLAND UNITS
	Adkd - Dike with adjacent, parallel ditch or ditches		Uat - Alluvial terrace undivided
	Adksb - Dike, submerged		Uat1 - Alluvial terrace lowest and youngest Uat2 - Alluvial terrace second-lowest
	Ads1 - Dredge spoils lower subaerial unit (sand, locally vegetated)		Uat - Alluvial terrace third-lowest
	Ads2 - Dredge spoils middle subaerial unit (sandy slope)		Uat4 - Alluvial terrace highest and oldest
	Ads3 - Dredge spoils upper subaerial unit (sand, sparse grass)		Ucs - Channel scar (trace of semi-abandoned to abandoned channel, chute, or meander)
	Adsdk1 - Dredge spoil dike high		Ucsl - Channel-scar levee(s)
	Adsdk2 - Dredge spoil dike highest AdsLImA - Dredge spoils - Lacustrine, limnetic,		Udis - Distributary, including channel and natural levees
	Aquatic vegetation		Udisb - Distributary, channel blocked, natural levees inactive
<u> </u>	AdsLltA - Dredge spoils - Lacustrine, littoral, Aquatic vegetation		UerMc - Erosional remnant, Miocene clay
EN	AdsPEcr - Dredge spoils Palustrine Emergent vegetation (common reed)	_	Ulb - Levee back-slope (siltier, more vegetated than Uls or Ulso)
	AdsPEp - Dredge spoils Palustrine Emergent vegetation, perennially saturated to flooded		Ulbf - Levee backslope, farmed (plowed)
	flooded AdsPEsp - Dredge spoils Palustrine		Uls - Levee sand (sparsley vegetated) Ulso - Levee sand, outer margin (siltier, more
-	Emergent, vegetation, semi-persistently saturated to flooded		vegetated than Uls)
	Af - Fill		Ums - Meander-scroll set Umsf - Meander-scroll set, farmed
	Afds - Fill, dredge spoils in I-90 road embankment		Uss - Sand splay or crevasse splay (sparsely
	Al - Levee (man-made)		vegetated) Ussc - Sand splay channel (crevasse)
	Ap - Pier, man-made, with fill and (or) other materials		Usso - Sand splay, outer margin (siltier,
	Ar - Roadbed (includes cuts and fills, except where shown separately)		more vegetated than Uss)
	Arr - Railway roadbed (includes cuts and fills)		
	Assd - Sand splay associated with ditch		
	from river to floodplain		
	HIGHLAND UNITS		
	HMbv - Miocene basalt (Columbia River Basalt Group)		
	HMs - Miocene semi-consolidated alluvial and lacustrine sediments		
	HQIs - Quaternary landslide debris		
	HQpl - Quaternary Palouse loess (silt dunes)		
	HQta - Quaternary alluvium of tributaries HUif - Highland-Upland transitional area,		
	intermittently flooded HUQmf - Quaternary mudflow deposit, across		
	Highland-Upland Transition		
	HYms - Proterozoic metasedimentary rocks (mostly argillite and quartzite of the Belt Supergroup)		.
	LACUSTRINE UNITS		Bridge, paired lines indicate the left and right sides of a
	Lisb - Inlet sand bar		Contact - Approximate boundary between mapped un
	LImA - Limnetic, Aquatic, with $> 30\%$ of		Drainage Ditch (center line)
	aquatic vegetation LlmAnp - Limnetic, Aquatic, non-persistent		
	vegetation LImAsb - Limnetic, Aquatic, submergent		Stream, Intermittent (center line)
	vegetation LImDOw - Limnetic, Delta front, Open water,		Stream, Perennial (center line)
	<10 m deep		
	LlmOw1 - Limnetic, Open water, < 10 m deep		Boundary of mapped area
	LlmOw2 - Limnetic, Open water, >10 m deep		Culvert
	LltA - Littoral, Aquatic, with > 30% of aquatic vegetation		Dredge-spoil dike, narrow (center-line)
	LltA - Littoral, Aquatic, with $> 30\%$ of		Dredge-spoil dike, narrow (center-line) Remnants of historic plank and piling walls built
	LItA - Littoral, Aquatic, with > 30% of aquatic vegetation LItAnp - Littoral, Aquatic, non-persistent vegetation LItAsb - Littoral, Aquatic, submergent		Dredge-spoil dike, narrow (center-line) Remnants of historic plank and piling walls built to prevent bank erosion. (Line represents former wall position, not point locations of remaining pilings)
	LItA - Littoral, Aquatic, with > 30% of aquatic vegetation LItAnp - Littoral, Aquatic, non-persistent vegetation		Remnants of historic plank and piling walls built to prevent bank erosion. (Line represents former wall position, not point locations of remaining pilings)
	LltA - Littoral, Aquatic, with > 30% of aquatic vegetation LltAnp - Littoral, Aquatic, non-persistent vegetation LltAsb - Littoral, Aquatic, submergent vegetation	······	Remnants of historic plank and piling walls built to prevent bank erosion. (Line represents former wall position, not point locations of remaining pilings)
	LltA - Littoral, Aquatic, with > 30% of aquatic vegetation LltAnp - Littoral, Aquatic, non-persistent vegetation LltAsb - Littoral, Aquatic, submergent vegetation LltE - Littoral, Emergent vegetation LltEnp - Littoral, Emergent, non-persistent		Remnants of historic plank and piling walls built to prevent bank erosion. (Line represents former wall position, not point locations of remaining pilings) Cutbank, High, > 1 meter (hachures point up the bank
	LltA - Littoral, Aquatic, with > 30% of aquatic vegetation LltAnp - Littoral, Aquatic, non-persistent vegetation LltAsb - Littoral, Aquatic, submergent vegetation LltE - Littoral, Emergent vegetation LltEnp - Littoral, Emergent, non-persistent vegetation	<u> </u>	Remnants of historic plank and piling walls built to prevent bank erosion. (Line represents former wall position, not point locations of remaining pilings) Cutbank, High, > 1 meter (hachures point up the bank
	LltA - Littoral, Aquatic, with > 30% of aquatic vegetation LltAnp - Littoral, Aquatic, non-persistent vegetation LltAsb - Littoral, Aquatic, submergent vegetation LltE - Littoral, Emergent vegetation LltEnp - Littoral, Emergent, non-persistent vegetation LltI - Littoral, levee (submerged)		Remnants of historic plank and piling walls built to prevent bank erosion. (Line represents former wall position, not point locations of remaining pilings) Cutbank, High, > 1 meter (hachures point up the bank Cutbank, Low, < 1 meter (hachures point up the bank
	LltA - Littoral, Aquatic, with > 30% of aquatic vegetation LltAnp - Littoral, Aquatic, non-persistent vegetation LltAsb - Littoral, Aquatic, submergent vegetation LltE - Littoral, Emergent vegetation LltEnp - Littoral, Emergent, non-persistent vegetation LltI - Littoral, levee (submerged) LltOw - Littoral, Open water PALUSTRINE UNITS PA - Aquatic, with > 30% of aquatic		Remnants of historic plank and piling walls built to prevent bank erosion. (Line represents former wall position, not point locations of remaining pilings) Cutbank, High, > 1 meter (hachures point up the bank Cutbank, Low, < 1 meter (hachures point up the bank Rip Rap - Broken rock placed to prevent bank erosion Waterfowl nesting mounds, with surrounding moats
	LltA - Littoral, Aquatic, with > 30% of aquatic vegetation LltAnp - Littoral, Aquatic, non-persistent vegetation LltAsb - Littoral, Aquatic, submergent vegetation LltE - Littoral, Emergent vegetation LltEnp - Littoral, Emergent, non-persistent vegetation LltI - Littoral, levee (submerged) LltOw - Littoral, Open water PALUSTRINE UNITS PA - Aquatic, with > 30% of aquatic vegetation at the surface PAE - Aquatic and lesser Emergent		Remnants of historic plank and piling walls built to prevent bank erosion. (Line represents former wall position, not point locations of remaining pilings) Cutbank, High, > 1 meter (hachures point up the bank Cutbank, Low, < 1 meter (hachures point up the bank Rip Rap - Broken rock placed to prevent bank erosion Waterfowl nesting mounds, with surrounding moats and connecting canals
	LltA - Littoral, Aquatic, with > 30% of aquatic vegetation LltAnp - Littoral, Aquatic, non-persistent vegetation LltAsb - Littoral, Aquatic, submergent vegetation LltE - Littoral, Emergent vegetation LltEnp - Littoral, Emergent, non-persistent vegetation LltI - Littoral, levee (submerged) LltOw - Littoral, levee (submerged) LltOw - Littoral, Open water PALUSTRINE UNITS PA - Aquatic, with > 30% of aquatic vegetation at the surface PAE - Aquatic and lesser Emergent vegetation PAnp - Aquatic, non-persistent		Remnants of historic plank and piling walls built to prevent bank erosion. (Line represents former wall position, not point locations of remaining pilings) Cutbank, High, > 1 meter (hachures point up the bank Cutbank, Low, < 1 meter (hachures point up the bank Rip Rap - Broken rock placed to prevent bank erosion Waterfowl nesting mounds, with surrounding moats and connecting canals
	 LltA - Littoral, Aquatic, with > 30% of aquatic vegetation LltAnp - Littoral, Aquatic, non-persistent vegetation LltAsb - Littoral, Aquatic, submergent vegetation LltE - Littoral, Emergent vegetation LltEnp - Littoral, Emergent, non-persistent vegetation LltI - Littoral, levee (submerged) LltOw - Littoral, Open water PALUSTRINE UNITS PA - Aquatic, with > 30% of aquatic vegetation at the surface PAE - Aquatic and lesser Emergent vegetation 	The second	Remnants of historic plank and piling walls built to prevent bank erosion. (Line represents former wall position, not point locations of remaining pilings) Cutbank, High, > 1 meter (hachures point up the bank Cutbank, Low, < 1 meter (hachures point up the bank Rip Rap - Broken rock placed to prevent bank erosion Waterfowl nesting mounds, with surrounding moats and connecting canals Surfacewater pumping station References .M., Carter, Virginia, Golet, F.C., and LaRoe, E.T., 1979, on of wetlands and deepwater habitats of the United
	 LltA - Littoral, Aquatic, with > 30% of aquatic vegetation LltAnp - Littoral, Aquatic, non-persistent vegetation LltAsb - Littoral, Aquatic, submergent vegetation LltE - Littoral, Emergent vegetation LltEnp - Littoral, Emergent, non-persistent vegetation LltI - Littoral, levee (submerged) LltOw - Littoral, Open water PALUSTRINE UNITS PA - Aquatic, with > 30% of aquatic vegetation PAE - Aquatic and lesser Emergent vegetation PAnp - Aquatic, non-persistent vegetation PAT - Aquatic and Terrestrial (Aquatic peat moss supporting terrestrial vegetation) 	Cowardin, L Classificati States: U.S Office of Bi	Remnants of historic plank and piling walls built to prevent bank erosion. (Line represents former wall position, not point locations of remaining pilings) Cutbank, High, > 1 meter (hachures point up the bank Cutbank, Low, < 1 meter (hachures point up the bank Rip Rap - Broken rock placed to prevent bank erosion Waterfowl nesting mounds, with surrounding moats and connecting canals Surfacewater pumping station References M., Carter, Virginia, Golet, F.C., and LaRoe, E.T., 1979, on of wetlands and deepwater habitats of the United . Dept. of the Interior, Fish and Wildlife Service, ological Services, FWS/OBS-79-31, 131 p.
	 LltA - Littoral, Aquatic, with > 30% of aquatic vegetation LltAnp - Littoral, Aquatic, non-persistent vegetation LltAsb - Littoral, Aquatic, submergent vegetation LltE - Littoral, Emergent vegetation LltEnp - Littoral, Emergent, non-persistent vegetation LltI - Littoral, levee (submerged) LltOw - Littoral, Open water PALUSTRINE UNITS PA - Aquatic, with > 30% of aquatic vegetation PAE - Aquatic and lesser Emergent vegetation PAnp - Aquatic, non-persistent vegetation PAT - Aquatic and Terrestrial (Aquatic peat moss supporting terrestrial vegetation) PdisbE - Distributary, channel blocked, inactive levees, Emergent vegetation 	Cowardin, L Classificati States: U.S Office of Bi Griggs, A.B. Idaho, and	Remnants of historic plank and piling walls built to prevent bank erosion. (Line represents former wall position, not point locations of remaining pilings) Cutbank, High, > 1 meter (hachures point up the bank Cutbank, Low, < 1 meter (hachures point up the bank Rip Rap - Broken rock placed to prevent bank erosion Waterfowl nesting mounds, with surrounding moats and connecting canals Surfacewater pumping station References M., Carter, Virginia, Golet, F.C., and LaRoe, E.T., 1979, on of wetlands and deepwater habitats of the United . Dept. of the Interior, Fish and Wildlife Service, ological Services, FWS/OBS-79-31, 131 p. , 1973, Geologic map of the Spokane quadrangle, Washi Montana: U.S. Geological Survey Map I-786, scale 1:250
	 LltA - Littoral, Aquatic, with > 30% of aquatic vegetation LltAnp - Littoral, Aquatic, non-persistent vegetation LltAsb - Littoral, Aquatic, submergent vegetation LltE - Littoral, Emergent vegetation LltE - Littoral, Emergent, non-persistent vegetation LltI - Littoral, levee (submerged) LltOw - Littoral, Open water PALUSTRINE UNITS PA - Aquatic, with > 30% of aquatic vegetation PAE - Aquatic and lesser Emergent vegetation PAT - Aquatic, non-persistent vegetation PAT - Aquatic and Terrestrial (Aquatic peat moss supporting terrestrial vegetation) PdisbE - Distributary, channel blocked, inactive levees, Emergent vegetation PdisE - Distributary, including channel, natural levees, Emergent vegetation 	Cowardin, L Classificati States: U.S Office of Bi Griggs, A.B.	Remnants of historic plank and piling walls built to prevent bank erosion. (Line represents former wall position, not point locations of remaining pilings) Cutbank, High, > 1 meter (hachures point up the bank Cutbank, Low, < 1 meter (hachures point up the bank Rip Rap - Broken rock placed to prevent bank erosion Waterfowl nesting mounds, with surrounding moats and connecting canals Surfacewater pumping station References M., Carter, Virginia, Golet, F.C., and LaRoe, E.T., 1979, on of wetlands and deepwater habitats of the United . Dept. of the Interior, Fish and Wildlife Service, ological Services, FWS/OBS-79-31, 131 p. , 1973, Geologic map of the Spokane quadrangle, Washi Montana: U.S. Geological Survey Map I-786, scale 1:250
	 LltA - Littoral, Aquatic, with > 30% of aquatic vegetation LltAnp - Littoral, Aquatic, non-persistent vegetation LltAsb - Littoral, Aquatic, submergent vegetation LltE - Littoral, Emergent vegetation LltEnp - Littoral, Emergent, non-persistent vegetation LltI - Littoral, levee (submerged) LltOw - Littoral, Open water PALUSTRINE UNITS PA - Aquatic, with > 30% of aquatic vegetation PAE - Aquatic and lesser Emergent vegetation PAnp - Aquatic, non-persistent vegetation PAT - Aquatic and Terrestrial (Aquatic peat moss supporting terrestrial vegetation) PdisbE - Distributary, channel blocked, inactive levees, Emergent vegetation PdisE - Distributary, including channel, natural levees, Emergent vegetation PE - Emergent vegetation 	Cowardin, L Classificati States: U.S Office of Bi Griggs, A.B. Idaho, and	Remnants of historic plank and piling walls built to prevent bank erosion. (Line represents former wall position, not point locations of remaining pilings) Cutbank, High, > 1 meter (hachures point up the bank Cutbank, Low, < 1 meter (hachures point up the bank Rip Rap - Broken rock placed to prevent bank erosion Waterfowl nesting mounds, with surrounding moats and connecting canals Surfacewater pumping station References M., Carter, Virginia, Golet, F.C., and LaRoe, E.T., 1979, on of wetlands and deepwater habitats of the United . Dept. of the Interior, Fish and Wildlife Service, ological Services, FWS/OBS-79-31, 131 p. , 1973, Geologic map of the Spokane quadrangle, Washi Montana: U.S. Geological Survey Map I-786, scale 1:250
	 LitA - Littoral, Aquatic, with > 30% of aquatic vegetation LitAnp - Littoral, Aquatic, non-persistent vegetation LitAsb - Littoral, Aquatic, submergent vegetation LitE - Littoral, Emergent vegetation LitEnp - Littoral, Emergent, non-persistent vegetation Littoral, levee (submerged) LitOw - Littoral, Open water PALUSTRINE UNITS PA - Aquatic, with > 30% of aquatic vegetation PAE - Aquatic and lesser Emergent vegetation PAT - Aquatic, non-persistent vegetation PAT - Aquatic, non-persistent vegetation PAT - Aquatic and Terrestrial (Aquatic peat moss supporting terrestrial vegetation) Pdisb - Distributary, channel blocked, inactive levees, Emergent vegetation Pdis - Distributary, including channel, natural levees, Emergent vegetation PE - Emergent vegetation PEA - Emergent and lesser aquatic vegetation 	Cowardin, L Classificati States: U.S Office of Bi Griggs, A.B. Idaho, and	Remnants of historic plank and piling walls built to prevent bank erosion. (Line represents former wall position, not point locations of remaining pilings) Cutbank, High, > 1 meter (hachures point up the bank Cutbank, Low, < 1 meter (hachures point up the bank Rip Rap - Broken rock placed to prevent bank erosion Waterfowl nesting mounds, with surrounding moats and connecting canals Surfacewater pumping station References M., Carter, Virginia, Golet, F.C., and LaRoe, E.T., 1979, on of wetlands and deepwater habitats of the United . Dept. of the Interior, Fish and Wildlife Service, ological Services, FWS/OBS-79-31, 131 p. , 1973, Geologic map of the Spokane quadrangle, Washi Montana: U.S. Geological Survey Map I-786, scale 1:250
	 LltA - Littoral, Aquatic, with > 30% of aquatic vegetation LltAnp - Littoral, Aquatic, non-persistent vegetation LltAsb - Littoral, Aquatic, submergent vegetation LltE - Littoral, Emergent vegetation LltEnp - Littoral, Emergent, non-persistent vegetation LltI - Littoral, levee (submerged) LltOw - Littoral, Open water PALUSTRINE UNITS PA - Aquatic, with > 30% of aquatic vegetation PAE - Aquatic and lesser Emergent vegetation PAT - Aquatic, non-persistent vegetation PAT - Aquatic and Terrestrial (Aquatic peat moss supporting terrestrial vegetation) PdisbE - Distributary, channel blocked, inactive levees, Emergent vegetation PE - Emergent vegetation PE - Emergent and lesser aquatic 	Cowardin, L Classificati States: U.S Office of Bi Griggs, A.B. Idaho, and	Remnants of historic plank and piling walls built to prevent bank erosion. (Line represents former wall position, not point locations of remaining pilings) Cutbank, High, > 1 meter (hachures point up the bank Cutbank, Low, < 1 meter (hachures point up the bank Rip Rap - Broken rock placed to prevent bank erosion Waterfowl nesting mounds, with surrounding moats and connecting canals Surfacewater pumping station References M., Carter, Virginia, Golet, F.C., and LaRoe, E.T., 1979, on of wetlands and deepwater habitats of the United . Dept. of the Interior, Fish and Wildlife Service, ological Services, FWS/OBS-79-31, 131 p. , 1973, Geologic map of the Spokane quadrangle, Washi Montana: U.S. Geological Survey Map I-786, scale 1:250
	 LltA - Littoral, Aquatic, with > 30% of aquatic vegetation LltAnp - Littoral, Aquatic, non-persistent vegetation LltAsb - Littoral, Aquatic, submergent vegetation LltE - Littoral, Emergent vegetation LltE - Littoral, Emergent, non-persistent vegetation LltI - Littoral, levee (submerged) LltOw - Littoral, Open water PALUSTRINE UNITS PA - Aquatic, with > 30% of aquatic vegetation PAE - Aquatic, non-persistent vegetation PAT - Aquatic, non-persistent vegetation PAT - Aquatic, non-persistent vegetation PAT - Aquatic and lesser Emergent vegetation PAT - Aquatic and Terrestrial (Aquatic peat moss supporting terrestrial vegetation) PdisbE - Distributary, channel blocked, inactive levees, Emergent vegetation PdisE - Distributary, including channel, natural levees, Emergent vegetation PE - Emergent vegetation PEA - Emergent and lesser aquatic vegetation PEA - Emergent vegetation (common reed) PEp - Emergent vegetation, perennially saturated to flooded 	Cowardin, L Classificati States: U.S Office of Bi Griggs, A.B. Idaho, and	Remnants of historic plank and piling walls built to prevent bank erosion. (Line represents former wall position, not point locations of remaining pilings) Cutbank, High, > 1 meter (hachures point up the bank Cutbank, Low, < 1 meter (hachures point up the bank Rip Rap - Broken rock placed to prevent bank erosion Waterfowl nesting mounds, with surrounding moats and connecting canals Surfacewater pumping station References M., Carter, Virginia, Golet, F.C., and LaRoe, E.T., 1979, on of wetlands and deepwater habitats of the United . Dept. of the Interior, Fish and Wildlife Service, ological Services, FWS/OBS-79-31, 131 p. , 1973, Geologic map of the Spokane quadrangle, Washi Montana: U.S. Geological Survey Map I-786, scale 1:250
	 LltA - Littoral, Aquatic, with > 30% of aquatic vegetation LltAnp - Littoral, Aquatic, non-persistent vegetation LltAsb - Littoral, Aquatic, submergent LltAsb - Littoral, Emergent vegetation LltE - Littoral, Emergent, non-persistent vegetation LltI - Littoral, Emergent, non-persistent vegetation LltOw - Littoral, Open water PALUSTRINE UNITS PA - Aquatic, with > 30% of aquatic vegetation PAE - Aquatic, with > 30% of aquatic vegetation PAT - Aquatic, non-persistent vegetation PAT - Aquatic, non-persistent vegetation PAT - Aquatic, non-persistent vegetation PAT - Aquatic and Terrestrial (Aquatic peat moss supporting terrestrial vegetation) PdisbE - Distributary, channel blocked, inactive levees, Emergent vegetation PE - Emergent vegetation PE - Emergent and lesser aquatic vegetation PE - Emergent vegetation (common reed) PEp - Emergent vegetation, perennially saturated to flooded PEph - Emergent vegetation (horsetails), perennially saturated to flooded 	Cowardin, L Classificati States: U.S Office of Bi Griggs, A.B. Idaho, and	Remnants of historic plank and piling walls built to prevent bank erosion. (Line represents former wall position, not point locations of remaining pilings) Cutbank, High, > 1 meter (hachures point up the bank Cutbank, Low, < 1 meter (hachures point up the bank Rip Rap - Broken rock placed to prevent bank erosion Waterfowl nesting mounds, with surrounding moats and connecting canals Surfacewater pumping station M., Carter, Virginia, Golet, F.C., and LaRoe, E.T., 1979, on of wetlands and deepwater habitats of the United Dept. of the Interior, Fish and Wildlife Service, ological Services, FWS/OBS-79-31, 131 p. (1973, Geologic map of the Spokane quadrangle, Washi Montana: U.S. Geological Survey Map I-786, scale 1:250 981).
	 LltA - Littoral, Aquatic, with > 30% of aquatic vegetation LltAnp - Littoral, Aquatic, non-persistent vegetation LltAsb - Littoral, Aquatic, submergent vegetation LltE - Littoral, Emergent vegetation LltEnp - Littoral, Emergent, non-persistent vegetation LltEnp - Littoral, Emergent, non-persistent vegetation LltOw - Littoral, Open water PALUSTRINE UNITS PA - Aquatic, with > 30% of aquatic vegetation PAF - Aquatic and lesser Emergent vegetation PAnp - Aquatic, non-persistent vegetation PAT - Aquatic and Terrestrial (Aquatic peat moss supporting terrestrial vegetation) PdisbE - Distributary, channel blocked, inactive levees, Emergent vegetation PdisE - Distributary, including channel, natural levees, Emergent vegetation PEA - Emergent vegetation PEA - Emergent vegetation (common reed) PEp - Emergent vegetation (norsetails), perennially saturated to flooded PEph - Emergent > Aquatic vegetation 	Cowardin, L Classificati States: U.S Office of Bi Griggs, A.B. Idaho, and	Remnants of historic plank and piling walls built to prevent bank erosion. (Line represents former wall position, not point locations of remaining pilings) Cutbank, High, > 1 meter (hachures point up the bank Cutbank, Low, < 1 meter (hachures point up the bank Rip Rap - Broken rock placed to prevent bank erosion Waterfowl nesting mounds, with surrounding moats and connecting canals Surfacewater pumping station M., Carter, Virginia, Golet, F.C., and LaRoe, E.T., 1979, on of wetlands and deepwater habitats of the United Dept. of the Interior, Fish and Wildlife Service, ological Services, FWS/OBS-79-31, 131 p. , 1973, Geologic map of the Spokane quadrangle, Washi Montana: U.S. Geological Survey Map I-786, scale 1:250 981).
	 LltA - Littoral, Aquatic, with > 30% of aquatic vegetation LltAnp - Littoral, Aquatic, non-persistent vegetation LltAsb - Littoral, Aquatic, submergent vegetation LltE - Littoral, Emergent vegetation LltEnp - Littoral, Emergent, non-persistent vegetation LltI - Littoral, levee (submerged) LltOw - Littoral, Open water PALUSTRINE UNITS PA - Aquatic, with > 30% of aquatic vegetation PAF - Aquatic, and lesser Emergent vegetation PAT - Aquatic, non-persistent vegetation PAT - Aquatic, non-persistent vegetation PAT - Aquatic and lesser Emergent vegetation PAT - Aquatic, non-persistent vegetation PAT - Aquatic and Terrestrial (Aquatic peat moss supporting terrestrial vegetation) PdisbE - Distributary, channel blocked, inactive levees, Emergent vegetation PdisE - Distributary, including channel, natural levees, Emergent vegetation PEA - Emergent vegetation (common reed) PEp - Emergent vegetation (common reed) PEp - Emergent vegetation (horsetails), perennially saturated to flooded PEphA - Emergent > Aquatic vegetation (horsetails predominant), perennially saturated to flooded PEphA - Emergent vegetation (wild rice), 	Cowardin, L Classificati States: U.S Office of Bi Griggs, A.B. Idaho, and	Remnants of historic plank and piling walls built to prevent bank erosion. (Line represents former wall position, not point locations of remaining pilings) Cutbank, High, > 1 meter (hachures point up the bank Cutbank, Low, < 1 meter (hachures point up the bank Rip Rap - Broken rock placed to prevent bank erosion Waterfowl nesting mounds, with surrounding moats and connecting canals Surfacewater pumping station M., Carter, Virginia, Golet, F.C., and LaRoe, E.T., 1979, on of wetlands and deepwater habitats of the United Dept. of the Interior, Fish and Wildlife Service, ological Services, FWS/OBS-79-31, 131 p. , 1973, Geologic map of the Spokane quadrangle, Washi Montana: U.S. Geological Survey Map I-786, scale 1:250 981).
	 LltA - Littoral, Aquatic, with > 30% of aquatic vegetation LltAnp - Littoral, Aquatic, non-persistent vegetation LltAsb - Littoral, Aquatic, submergent vegetation LltE - Littoral, Emergent vegetation LltE - Littoral, Emergent, non-persistent vegetation LltInp - Littoral, Emergent, non-persistent vegetation LltOw - Littoral, Open water PALUSTRINE UNITS PA - Aquatic, with > 30% of aquatic vegetation PAE - Aquatic and lesser Emergent vegetation PAT - Aquatic, non-persistent vegetation PAT - Aquatic, non-persistent vegetation PAT - Aquatic, non-persistent vegetation PAT - Aquatic and Terrestrial (Aquatic peat moss supporting terrestrial vegetation) PdisbE - Distributary, channel blocked, inactive levees, Emergent vegetation PE - Emergent vegetation PEA - Emergent vegetation PEA - Emergent vegetation PED - Emergent vegetation (common reed) PEp - Emergent vegetation (horsetails), perennially saturated to flooded PEph - Emergent > Aquatic vegetation (horsetails), perennially saturated to flooded 	Cowardin, L Classificati States: U.S Office of Bi Griggs, A.B. Idaho, and	Remnants of historic plank and piling walls built to prevent bank erosion. (Line represents former wall position, not point locations of remaining pilings) Cutbank, High, > 1 meter (hachures point up the bank Cutbank, Low, < 1 meter (hachures point up the bank Rip Rap - Broken rock placed to prevent bank erosion Waterfowl nesting mounds, with surrounding moats and connecting canals Surfacewater pumping station M., Carter, Virginia, Golet, F.C., and LaRoe, E.T., 1979, on of wetlands and deepwater habitats of the United . Dept. of the Interior, Fish and Wildlife Service, ological Services, FWS/OBS-79-31, 131 p. , 1973, Geologic map of the Spokane quadrangle, Washi Montana: U.S. Geological Survey Map I-786, scale 1:250 981).
	 LltA - Littoral, Aquatic, with > 30% of aquatic vegetation LltAnp - Littoral, Aquatic, non-persistent vegetation LltAsb - Littoral, Aquatic, submergent vegetation LltE - Littoral, Emergent vegetation LltEnp - Littoral, Emergent, non-persistent vegetation LltI - Littoral, levee (submerged) LltOw - Littoral, Open water PALUSTRINE UNITS PA - Aquatic, with > 30% of aquatic vegetation PAT - Aquatic, non-persistent vegetation PAT - Aquatic, non-persistent vegetation PAT - Aquatic, non-persistent vegetation PAT - Aquatic and lesser Emergent vegetation PAT - Aquatic and Terrestrial (Aquatic peat moss supporting terrestrial vegetation) PdisbE - Distributary, channel blocked, inactive levees, Emergent vegetation PdisE - Distributary, including channel, natural levees, Emergent vegetation PEA - Emergent vegetation PEA - Emergent vegetation (common reed) PEp - Emergent vegetation (horsetails), perennially saturated to flooded PEph - Emergent vegetation (horsetails), perennially saturated to flooded PEph - Emergent vegetation (wild rice), perennially saturated to flooded PEpr - Emergent vegetation (wild rice), perennially saturated to flooded PEpr - Emergent vegetation (wild rice), perennially saturated to flooded PEpr - Emergent vegetation (wild rice), perennially saturated to flooded PEpr - Emergent vegetation (wild rice), perennially saturated to flooded PEpr - Emergent vegetation (wild rice), perennially saturated to flooded PEpr - Emergent vegetation, seasonally flooded PEs - Emergent vegetation, seasonally 	Cowardin, L Classificati States: U.S Office of Bi Griggs, A.B. Idaho, and	Remnants of historic plank and piling walls built to prevent bank erosion. (Line represents former wall position, not point locations of remaining pilings) Cutbank, High, > 1 meter (hachures point up the bank Cutbank, Low, < 1 meter (hachures point up the bank Rip Rap - Broken rock placed to prevent bank erosion Waterfowl nesting mounds, with surrounding moats and connecting canals Surfacewater pumping station M., Carter, Virginia, Golet, F.C., and LaRoe, E.T., 1979, on of wetlands and deepwater habitats of the United . Dept. of the Interior, Fish and Wildlife Service, ological Services, FWS/OBS-79-31, 131 p. (1973, Geologic map of the Spokane quadrangle, Washi Montana: U.S. Geological Survey Map I-786, scale 1:250 981).
	 LltA - Littoral, Aquatic, with > 30% of aquatic vegetation LltAnp - Littoral, Aquatic, non-persistent vegetation LltAsb - Littoral, Aquatic, submergent vegetation LltE - Littoral, Emergent vegetation LltEnp - Littoral, Emergent, non-persistent vegetation LltImp - Littoral, Emergent, non-persistent vegetation LltI - Littoral, levee (submerged) LltOw - Littoral, Open water PALUSTRINE UNITS PA - Aquatic, with > 30% of aquatic vegetation PAT - Aquatic, non-persistent vegetation PAT - Aquatic, non-persistent vegetation PAT - Aquatic and lesser Emergent vegetation PAT - Aquatic and Terrestrial (Aquatic peat moss supporting terrestrial vegetation) PdisbE - Distributary, channel blocked, inactive levees, Emergent vegetation PdisE - Distributary, including channel, natural levees, Emergent vegetation PEA - Emergent vegetation PEA - Emergent and lesser aquatic vegetation PEA - Emergent vegetation (common reed) PEp - Emergent vegetation (horsetails), perennially saturated to flooded PEph - Emergent vegetation (horsetails), perennially saturated to flooded PEph - Emergent vegetation (wild rice), perennially saturated to flooded PEpr - Emergent vegetation (wild rice), perennially saturated to flooded PEpr - Emergent vegetation, seasonally flooded PEs - Emergent vegetation, seasonally flooded PEsf - Emergent vegetation, seasonally PEad - Emergent vegetation, seas	Cowardin, L Classificati States: U.S Office of Bi Griggs, A.B. Idaho, and	Remnants of historic plank and piling walls built to prevent bank erosion. (Line represents former wall position, not point locations of remaining pilings) Cutbank, High, > 1 meter (hachures point up the bank Cutbank, Low, < 1 meter (hachures point up the bank Rip Rap - Broken rock placed to prevent bank erosion Waterfowl nesting mounds, with surrounding moats and connecting canals Surfacewater pumping station M., Carter, Virginia, Golet, F.C., and LaRoe, E.T., 1979, on of wetlands and deepwater habitats of the United . Dept. of the Interior, Fish and Wildlife Service, ological Services, FWS/OBS-79-31, 131 p. (1973, Geologic map of the Spokane quadrangle, Washi Montana: U.S. Geological Survey Map I-786, scale 1:250 981).
	 LltA - Littoral, Aquatic, with > 30% of aquatic vegetation LltAnp - Littoral, Aquatic, non-persistent vegetation LltAsb - Littoral, Aquatic, submergent vegetation LltE - Littoral, Emergent vegetation LltE - Littoral, Emergent, non-persistent vegetation LltInp - Littoral, Emergent, non-persistent vegetation LltI - Littoral, levee (submerged) LltOw - Littoral, Open water PALUSTRINE UNITS PA - Aquatic, with > 30% of aquatic vegetation PAE - Aquatic and lesser Emergent vegetation PAT - Aquatic, non-persistent vegetation PAT - Aquatic and Terrestrial (Aquatic peat moss supporting terrestrial vegetation) PdisbE - Distributary, channel blocked, inactive levees, Emergent vegetation PEA - Emergent vegetation (common reed) PEp - Emergent vegetation (horsetails), perennially saturated to flooded PEphA - Emergent > Aquatic vegetation (horsetails), perennially saturated to flooded PEphA - Emergent vegetation (horsetails), perennially saturated to flooded PEphA - Emergent vegetation (horsetails), perennially saturated to flooded PEphA - Emergent vegetation (wild rice), perennially saturated to flooded PEs - Emergent vegetation (wild rice), perennially saturated to flooded PEs - Emergent vegetation (wild rice), perennially saturated to flooded PEs - Emergent vegetation (seasonally flooded PEs - Emergent vegetation, seasonally flooded PEs - Emergent vegetation, seasonally flooded PEs - Emergent vegetation, seasonally flooded 	Cowardin, L Classificati States: U.S Office of Bi Griggs, A.B. Idaho, and	Remnants of historic plank and piling walls built to prevent bank erosion. (Line represents former wall position, not point locations of remaining pilings) Cutbank, High, > 1 meter (hachures point up the bank Cutbank, Low, < 1 meter (hachures point up the bank Rip Rap - Broken rock placed to prevent bank erosion Waterfowl nesting mounds, with surrounding moats and connecting canals Surfacewater pumping station M., Carter, Virginia, Golet, F.C., and LaRoe, E.T., 1979, on of wetlands and deepwater habitats of the United . Dept. of the Interior, Fish and Wildlife Service, ological Services, FWS/OBS-79-31, 131 p. (1973, Geologic map of the Spokane quadrangle, Washi Montana: U.S. Geological Survey Map I-786, scale 1:250 981).
	 LitA - Littoral, Aquatic, with > 30% of aquatic vegetation LitAnp - Littoral, Aquatic, non-persistent vegetation LitAsb - Littoral, Aquatic, submergent vegetation LitE - Littoral, Emergent vegetation LitE - Littoral, Emergent, non-persistent vegetation LitToral, Ievee (submerged) LitOw - Littoral, Open water PALUSTRINE UNITS PA - Aquatic, with > 30% of aquatic vegetation PAT - Aquatic, non-persistent vegetation PAT - Aquatic and Terrestrial (Aquatic peat moss supporting terrestrial vegetation) PdisbE - Distributary, channel blocked, inactive levees, Emergent vegetation PEs - Emergent vegetation PEA - Emergent vegetation PEA - Emergent vegetation (common reed) PEp - Emergent vegetation (horsetails), perennially saturated to flooded PEph - Emergent vegetation (horsetails), perennially saturated to flooded PEph - Emergent vegetation (wild rice), perennially saturated to flooded PEpr - Emergent vegetation, seasonally flooded, artificially drained, farmed PEsf - Emergent vegetation, seasonally flooded, farmed 	Cowardin, L Classificati States: U.S Office of Bi Griggs, A.B. Idaho, and	Remnants of historic plank and piling walls built to prevent bank erosion. (Line represents former wall position, not point locations of remaining pilings) Cutbank, High, > 1 meter (hachures point up the bank Cutbank, Low, < 1 meter (hachures point up the bank Rip Rap - Broken rock placed to prevent bank erosion Waterfowl nesting mounds, with surrounding moats and connecting canals Surfacewater pumping station M., Carter, Virginia, Golet, F.C., and LaRoe, E.T., 1979, on of wetlands and deepwater habitats of the United . Dept. of the Interior, Fish and Wildlife Service, ological Services, FWS/OBS-79-31, 131 p. (1973, Geologic map of the Spokane quadrangle, Washi Montana: U.S. Geological Survey Map I-786, scale 1:250 981).

PtaE - Tributary alluvium with Emergent

Rbw - Bank wedge of metal-enriched sediments (wedge thickens from levee top to river bank)

vegetation

RIVERINE UNITS

Rdisc - Distributary channel (wide)

116° 15′ 00″

This report is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards or with the North American Stratigraphic Code. Any use of trade, firm, or product names in this publication is for descriptive purposes only and does not imply endorsement by the U.S. Government. The digital database from which this map was prepared is not meant to be used or displayed at any scale larger than 1:24,000 (e.g., not enlarged to 1:12,000). This map was printed on an electronic plotter directly from digital files. Dimensional calibration may vary between electronic plotters and between X and Y directions on the same plotter, and paper may change size due to atmospheric conditions; therefore, scale and proportions may not be true on plots of this map. For sale by U.S. Geological Survey, Map Distribution, Box 25286, Federal Center, Denver, CO 80225, 1-888-ASK-USGS

Digital files available on World Wide Web at http://geopubs.wr.usgs.gov