

## Cowardin Codes for ORM Data Entry

**Estuarine (E):** Consists of deepwater tidal habitats and adjacent tidal wetlands that are usually semi-enclosed by land but have open, partly obstructed, or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation. Along some low-energy coastlines there is appreciable dilution of sea water. Offshore areas with typical estuarine plants and animals, such as red mangroves and eastern oysters, are also included in the Estuarine System. The following is a complete list of Cowardin codes for Estuarine waters.

<b>Cowardin Code</b>	<b>Description</b>	<b>Name</b>
E	Estuarine	E-ESTUARINE
E1	Subtidal, Estuarine	E1-ESTUARINE, SUBTIDAL
E1AB	Aquatic Bed, Estuarine	E1AB-ESTUARINE, SUBTIDAL, AQUATIC BED
E1AB1	Algal, Aquatic Bed, Subtidal, Estuarine	E1AB1-ESTUARINE, SUBTIDAL, AQUATIC BED, ALGAL
E1AB3	Rooted Vascular, Aquatic Bed, Subtidal, Estuarine	E1AB3-ESTUARINE, SUBTIDAL, AQUA BED, ROOT VASC
E1AB4	Floating Vascular, Aquatic Bed, Subtidal, Estuarine	E1AB4-ESTUARINE, SUBTIDAL, AQUA BED, FLOT VASC
E1AB5	Unknown Submergent, Aquatic Bed, Subtidal, Estuarine	E1AB5-ESTUARINE, SUBTIDAL, AQUA BED, UNK SUB
E1AB6	Unknown Surface, Aquatic Bed, Subtidal, Estuarine	E1AB6-ESTUARINE, SUBTIDAL, AQUA BED, UNK SUR
E1OW	Open Water, Subtidal, Estuarine (used on older maps)	E1OW-ESTUARINE, SUBTIDAL, OPEN WATER
E1RB	Rock Bottom, Subtidal, Estuarine	E1RB-ESTUARINE, SUBTIDAL, ROCK BOTTOM
E1RB1	Bedrock, Rock Bottom, Subtidal, Estuarine	E1RB1-ESTUARINE, SUBTIDAL, ROCK BOTTOM, BEDROK
E1RB2	Rubble, Rock Bottom, Subtidal, Estuarine	E1RB2-ESTUARINE, SUBTIDAL, ROCK BOTTOM, RUBBLE
E1RF	Reef, Subtidal, Estuarine	E1RF-ESTUARINE, SUBTIDAL, REEF
E1RF2	Mollusk, Reef, Subtidal, Estuarine	E1RF2-ESTUARINE, SUBTIDAL, REEF, MOLLUSK
E1RF3	Worm, Reef, Subtidal, Estuarine	E1RF3-ESTUARINE, SUBTIDAL, REEF, WORM
E1UB	Unconsolidated Bottom, Subtidal, Estuarine	E1UB-ESTUARINE, SUBTIDAL UNCONSOLIDATED BOTTM
E1UB1	Cobble-Gravel, Unconsolidated Bottom, Subtidal, Estuarine	E1UB1-ESTUARINE, SUBTIDAL, UNCONSOL BOTOM, COB
E1UB2	Sand, Unconsolidated Bottom, Subtidal, Estuarine	E1UB2-ESTUARINE, SUBTIDAL, UNCONSOL BOT, SAND
E1UB3	Mud, Unconsolidated Bottom, Subtidal, Estuarine	E1UB3-ESTUARINE, SUBTIDAL, UNCONSOL BOT, MUD
E1UB4	Organic, Unconsolidated Bottom, Subtidal, Estuarine	E1UB4-ESTUARINE, SUBTIDAL, UNCONSOL BOT, ORG
E2	Intertidal, Estuarine	E2-ESTUARINE, INTERTIDAL

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E2AB	Aquatic Bed, Intertidal, Estuarine	E2AB-ESTUARINE, INTERTIDAL, AQUATIC BED
E2AB1	Algal, Aquatic, Bed, Intertidal, Estuarine	E2AB1-ESTUARINE, INTERTIDAL, AQUA BED, ALGAL
E2AB3	Rooted Vascular, Aquatic Bed, Intertidal, Estuarine	E2AB3-ESTUARINE, INTERTIDAL, AQUA BED, ROOT VA
E2AB4	Floating Vascular, Aquatic Bed, Intertidal, Estuarine	E2AB4-ESTUARINE, INTERTIDAL, AQUABED, FLOAT VA
E2AB5	Unknown Submergent, Aquatic Bed, Intertidal, Estuarine	E2AB5-ESTUARINE, INTERTIDAL, AQUABED, UNK SUB
E2AB6	Unknown Surface, Aquatic Bed, Intertidal, Estuarine	E2AB6-ESTUARINE, INTERTIDAL, AQUABED, UNK SUR
E2EM	Emergent, Intertidal, Estuarine	E2EM-ESTUARINE, INTERTIDAL, EMERGENT
E2EM1	Persistent, Emergent, Intertidal, Estuarine	E2EM1-ESTUARINE, INTERTIDAL, EMERGENT, PERSIST
E2EM2	Nonpersistent, Emergent, Intertidal, Estuarine	E2EM2-ESTUARINE, INTERTIDAL, EMERGENT, NONPERS
E2FO	Forested, Intertidal, Estuarine	E2FO-ESTUARINE, INTERTIDAL, FORESTED
E2FO1	Broad-Leaved Deciduous, Forested, Intertidal, Estuarine	E2FO1-ESTUARINE, INTERTIDAL, FORESTED, BLD
E2FO2	Needle-Leaved Deciduous, Forested, Intertidal, Estuarine	E2FO2-ESTUARINE, INTERTIDAL, FORESTED, NLD
E2FO3	Broad-Leaved Evergreen, Forested, Intertidal, Estuarine	E2FO3-ESTUARINE, INTERTIDAL, FORESTED, BLE
E2FO4	Needle-Leaved Evergreen, Forested, Intertidal, Estuarine	E2FO4-ESTUARINE, INTERTIDAL, FORESTED, NLE
E2FO5	Dead, Forested, Intertidal, Estuarine	E2FO5-ESTUARINE, INTERTIDAL, FORESTED, DEAD
E2FO6	Indeterminate Deciduous, Forested, Intertidal, Estuarine	E2FO6-ESTUARINE, INTERTIDAL, FORESTED, IND
E2FO7	Indeterminate Evergreen, Forested, Intertidal, Estuarine	E2FO7-ESTUARINE, INTERTIDAL, FORESTED, INE
E2RF	Reef, Intertidal, Estuarine	E2RF-ESTUARINE, INTERTIDAL, REEF
E2RF2	Mollusk, Reef, Intertidal, Estuarine	E2RF2-ESTUARINE, INTERTIDAL, REEF, MOLLUSK
E2RF3	Worm, Reef, Intertidal, Estuarine	E2RF3-ESTUARINE, INTERTIDAL, REEF, WORM
E2RS	Rocky Shore, Intertidal, Estuarine	E2RS-ESTUARINE, INTERTIDAL, ROCKY SHORE
E2RS1	Bedrock, Rocky Shore, Intertidal, Estuarine	E2RS1-ESTUARINE, INTERTIDAL, ROCK SHR, BEDROK
E2RS2	Rubble, Rocky Shore, Intertidal, Estuarine	E2RS2-ESTUARINE, INTERTIDAL, ROCK SHR, RUBBLE
E2SB	Stream Bed, Intertidal, Estuarine	E2SB-ESTUARINE, INTERTIDAL, STREAM BED
E2SB3	Cobble-Gravel, Stream Bed, Intertidal, Estuarine	E2SB3-ESTUARINE, INTERTIDAL, STREAM BED, COBBL

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E2SB4	Sand, Stream Bed, Intertidal, Estuarine	E2SB4-ESTUARINE, INTERTIDAL, STREAM BED, SAND
E2SB5	Mud, Stream Bed, Intertidal, Estuarine	E2SB5-ESTUARINE, INTERTIDAL, STREAM BED, MUD
E2SB6	Organic, Stream Bed, Intertidal, Estuarine	E2SB6-ESTUARINE, INTERTIDAL, STREAM BED, ORGAN
E2SS	Scrub-Shrub, Intertidal, Estuarine	E2SS-ESTUARINE, INTERTIDAL, SCRUB-SHRUB
E2SS1	Broad-Leaved Deciduous, Scrub-Shrub, Intertidal, Estuarine	E2SS1-ESTUARINE, INTERTIDAL, SCRUB-SHRUB, BLD
E2SS2	Needle-Leaved Deciduous, Scrub-Shrub, Intertidal, Estuarine	E2SS2-ESTUARINE, INTERTIDAL, SCRUB-SHRUB, NLD
E2SS3	Broad-Leaved Evergreen, Scrub-Shrub, Intertidal, Estuarine	E2SS3-ESTUARINE, INTERTIDAL, SCRUB-SHRUB, BLE
E2SS4	Needle-Leaved Evergreen, Scrub-Shrub, Intertidal, Estuarine	E2SS4-ESTUARINE, INTERTIDAL, SCRUB-SHRUB, NLE
E2SS5	Dead, Scrub-Shrub, Intertidal, Estuarine	E2SS5-ESTUARINE, INTERTIDAL, SCRUB-SHRUB, DEAD
E2SS6	Indeterminate Deciduous, Scrub-Shrub, Intertidal, Estuarine	E2SS6-ESTUARINE, INTERTIDAL, SCRUB-SHRUB, IND
E2SS7	Indeterminate Evergreen, Scrub-Shrub, Intertidal, Estuarine	E2SS7-ESTUARINE, INTERTIDAL, SCRUB-SHRUB, INE
E2US	Unconsolidated Shore, Intertidal, Estuarine	E2US-ESTUARINE, INTERTIDAL, UNCONSOL SHORE
E2US1	Cobble, Unconsolidated Shore, Intertidal, Estuarine	E2US1-ESTUARINE, INTERTIDAL, UNCONSOL SHR, COB
E2US2	Sand, Unconsolidated Shore, Intertidal, Estuarine	E2US2-ESTUARINE, INTERTIDAL, UNCONSOL SHR, SAN
E2US3	Mud, Unconsolidated Shore, Intertidal, Estuarine	E2US3-ESTUARINE, INTERTIDAL, UNCONSOL BOT, MUD
E2US4	Organic, Unconsolidated Shore, Intertidal, Estuarine	E2US4-ESTUARINE, INTERTIDAL, UNCONSOL SHR, ORG

**Lacustrine (L):** Includes wetlands and deepwater habitats with all of the following characteristics: (1) situated in a topographic depression or a dammed river channel; (2) lacking trees, shrubs, persistent emergents, emergent mosses or lichens with greater than 30% areal coverage; and (3) total area exceeds 8 ha (20 acres). Similar wetland and deepwater habitats totaling less than 8 ha are also included in the Lacustrine System if an active wave-formed or bedrock shoreline feature makes up all or part of the boundary, or if the water depth in the deepest part of the basin exceeds 2 m (6.6 feet) at low water. Lacustrine waters may be tidal or non-tidal, but ocean-derived salinity is always less than 0.5%. The following is a complete list of Cowardin codes for lacustrine waters.

Cowardin Code	Description	Name
L	Lacustrine	L-LACUSTRINE
L1	Limnetic, Lacustrine	L1-LACUSTRINE, LIMNETIC

## Cowardin Codes for ORM Data Entry

L1AB	Aquatic Bed, Limnetic, Lacustrine	L1AB-LACUSTRINE, LIMNETIC, AQUA BED
L1AB1	Algal, Aquatic Bed, Limnetic, Lacustrine	L1AB1-LACUSTRINE, LIMNETIC, AQUA BED, ALGAL
L1AB2	Aquatic Moss, Aquatic Bed, Limnetic, Lacustrine	L1AB2-LACUSTRINE, LIMNETIC, AQUA BED, AQUA MOS
L1AB3	Rooted Vascular, Aquatic Bed, Limnetic, Lacustrine	L1AB3-LACUSTRINE, LIMNETIC, AQUA BED, ROOT VAS
L1AB4	Floating Vascular, Aquatic Bed, Limnetic, Lacustrine	L1AB4-LACUSTRINE, LIMNETIC, AQUA BED, FLOT VAS
L1AB5	Unknown Submergent, Aquatic Bed, Limnetic, Lacustrine	L1AB5-LACUSTRINE, LIMNETIC, AQUA BED, UNK SUB
L1AB6	Unknown Surface, Aquatic Bed, Limnetic, Lacustrine	L1AB6-LACUSTRINE, LIMNETIC, AQUA BED, UNK SURF
L1OW	Open Water/Unknown Bottom, Limnetic, Lacustrine (used on older maps)	L1OW-LACUSTRINE, LIMNETIC, OPEN WATER/UNK BOT
L1RB	Rock Bottom, Limnetic, Lacustrine	L1RB-LACUSTRINE, LIMNETIC, ROCK BOTTOM
L1RB1	Bedrock, Rock Bottom, Limnetic, Lacustrine	L1RB1-LACUSTRINE, LIMNETIC, ROCK BOT, BEDROCK
L1RB2	Rubble, Rock Bottom, Limnetic, Lacustrine	L1RB2-LACUSTRINE, LIMNETIC, ROCK BOT, RUBBLE
L1UB	Unconsolidated Bottom, Limnetic, Lacustrine	L1UB-LACUSTRINE, LIMNETIC, UNCONSOL BOTTOM
L1UB1	Cobble-Gravel, Unconsolidated Bottom, Limnetic, Lacustrine	L1UB1-LACUSTRINE, LIMNETIC, UNCONSOL BOT, COGGLE
L1UB2	Sand, Unconsolidated Bottom, Limnetic, Lacustrine	L1UB2-LACUSTRINE, LIMNETIC, UNCONSOL BOT, SAND
L1UB3	Mud, Unconsolidated Bottom, Limnetic, Lacustrine	L1UB3-LACUSTRINE, LIMNETIC, UNCONSOL BOT, MUD
L1UB4	Organic, Unconsolidated Bottom, Limnetic, Lacustrine	L1UB4-LACUSTRINE, LIMNETIC, UNCONSOL BOT, ORGANI
L2	Littoral, Lacustrine	L2-LACUSTRINE, LITTORAL
L2AB	Aquatic Bed, Littoral, Lacustrine	L2AB-LACUSTRINE, LITTORAL, AQUA BED
L2AB1	Algal, Aquatic Bed, Littoral, Lacustrine	L2AB1-LACUSTRINE, LITTORAL, AQUA BED, ALGAL
L2AB2	Aquatic Moss, Aquatic Bed, Littoral, Lacustrine	L2AB2-LACUSTRINE, LITTORAL, AQUA BED, AQUA MOS
L2AB3	Rooted Vascular, Aquatic Bed, Littoral, Lacustrine	L2AB3-LACUSTRINE, LITTORAL, AQUA BED, ROOT VAS
L2AB4	Floating Vascular, Aquatic Bed, Littoral, Lacustrine	L2AB4-LACUSTRINE, LITTORAL, AQUA BED, FLOT VAS
L2AB5	Unknown Submergent, Aquatic Bed, Littoral, Lacustrine	L2AB5-LACUSTRINE, LITTORAL, AQUA BED, UNK SUB
L2AB6	Unknown Surface, Aquatic Bed, Littoral, Lacustrine	L2AB6-LACUSTRINE, LITTORAL, AQUA BED, UNK SURF
L2EM	Emergent, Littoral, Lacustrine	L2EM-LACUSTRINE, LITTORAL, EMERGENT

## Cowardin Codes for ORM Data Entry

L2EM2	Nonpersistent, Emergent, Littoral, Lacustrine	L2EM2-LACUSTRINE, LITTORAL, EMERGENT, NONPERS
L2OW	Open Water/Unknown Bottom, Littoral, Lacustrine	L2OW-LACUSTRINE, LITTORAL, OPEN WATER
L2RB	Rock Bottom, Littoral, Lacustrine	L2RB-LACUSTRINE, LITTORAL, ROCK BOTTOM
L2RB1	Bedrock, Rock Bottom, Littoral, Lacustrine	L2RB1-LACUSTRINE, LITTORAL, ROCK BOT, BEDROCK
L2RB2	Rubble, Rock Bottom, Littoral, Lacustrine	L2RB2-LACUSTRINE, LITTORAL, ROCK BOT, RUBBLE
L2RS	Rocky Shore, Littoral, Lacustrine	L2RS-LACUSTRINE, LITTORAL, ROCKY SHORE
L2RS1	Bedrock, Rocky Shore, Littoral, Lacustrine	L2RS1-LACUSTRINE, LITTORAL, ROCKY SHR, BEDROCK
L2RS2	Rubble, Rocky Shore, Littoral, Lacustrine	L2RS2-LACUSTRINE, LITTORAL, ROCKY SHR, RUBBLE
L2UB	Unconsolidated Bottom, Littoral, Lacustrine	L2UB-LACUSTRINE, LITTORAL, UNCONSOL BOT
L2UB1	Cobble-Gravel, Unconsolidated Bottom, Littoral, Lacustrine	L2UB1-LACUSTRINE, LITTORAL, UNCONSOL BOT, COBBLE
L2UB2	Sand, Unconsolidated Bottom, Littoral, Lacustrine	L2UB2-LACUSTRINE, LITTORAL, UNCONSOL BOT, SAND
L2UB3	Mud, Unconsolidated Bottom, Littoral, Lacustrine	L2UB3-LACUSTRINE, LITTORAL, UNCONSOL BOT, MUD
L2UB4	Organic, Unconsolidated Bottom, Littoral, Lacustrine	L2UB4-LACUSTRINE, LITTORAL, UNCONSOL BOT, ORGAN
L2US	Unconsolidated Shore, Littoral, Lacustrine	L2US-LACUSTRINE, LITTORAL, UNCONSOL SHORE
L2US1	Cobble-Gravel, Unconsolidated Shore, Littoral, Lacustrine	L2US1-LACUSTRINE, LITTORAL, UNCONSOL SHR, COBBLE
L2US2	Sand, Unconsolidated Shore, Littoral, Lacustrine	L2US2-LACUSTRINE, LITTORAL, UNCONSOL SHR, SAND
L2US3	Mud, Unconsolidated Shore, Littoral, Lacustrine	L2US3-LACUSTRINE, LITTORAL, UNCONSOL SHR, MUD
L2US4	Organic, Unconsolidated Shore, Littoral, Lacustrine	L2US4-LACUSTRINE, LITTORAL, UNCONSOL SHR, ORGAN
L2US5	Vegetated, Unconsolidated Shore, Littoral, Lacustrine	L2US5-LACUSTRINE, LITTORAL, UNCONSOL SHR, VEGET

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**Marine (M):** Consists of the open ocean overlying the continental shelf and its associated high-energy coastline. Marine habitats are exposed to the waves and currents of the open ocean and the water regimes are determined primarily by the ebb and flow of oceanic tides. Salinities exceed 30‰ with little or no dilution except outside the mouths of estuaries. Shallow coastal indentations or bays without appreciable freshwater inflow, and coasts with exposed rocky islands that provide the mainland with little or no shelter from wind and waves, are also considered part of the Marine System because they generally support typical marine biota. The following is a complete list of Cowardin codes for marine waters.

## Cowardin Codes for ORM Data Entry

<b>Cowardin Code</b>	<b>Description</b>	<b>Name</b>
M	Marine	M-MARINE
M1	Subtidal Marine	M1-MARINE, SUBTIDAL
M1AB	Aquatic Bed, Subtidal, Marine	M1AB-MARINE, SUBTIDAL, AQUATIC BED
M1AB1	Algal, Aquatic Bed, Subtidal, Marine	M1AB1-MARINE, SUBTIDAL, AQUATIC BED, ALGAL
M1AB3	Rooted Vascular, Aquatic Bed, Subtidal, Marine	M1AB3-MARINE, SUBTIDAL, AQUATIC BED, ROOT VASC
M1AB5	Unknown Submergent, Aquatic Bed, Subtidal, Marine	M1AB5-MARINE, SUBTIDAL, AQUATIC BED, UNK SUB
M1OW	Open Water, Subtidal, Marine (Used on older maps)	M1OW-MARINE, SUBTIDAL, OPEN WATER
M1RB	Rock Bottom Subtidal Marine	M1RB-MARINE, SUBTIDAL, ROCK BOTTOM
M1RB1	Bedrock, Rock Bottom, Subtidal, Marine	M1RB1-MARINE, SUBTIDAL, ROCK BOTTOM, BEDROCK
M1RB2	Rubble, Rock Bottom, Subtidal, Marine	M1RB2-MARINE, SUBTIDAL, ROCK BOTTOM, RUBBLE
M1RF	Nonpersistent, Emergent, Lower Perennial, Riverine	M1RF-MARINE, SUBTIDAL, REEF
M1RF1	Coral, Reef, Subtidal, Marine	M1RF1-MARINE, SUBTIDAL, REEF, CORAL
M1RF3	Worm, Reef, Subtidal, Marine	M1RF3-MARINE, SUBTIDAL, REEF, WORM
M1UB	Unconsolidated Bottom, Subtidal, Marine	M1UB-MARINE, SUBTIDAL, UNCONSOLIDATED BOTTOM
M1UB1	Cobble-Gravel, Unconsolidated, Subtidal, Marine	M1UB1-MARINE, SUBTIDAL, UNCONSOL BOTTOM, COBBL
M1UB2	Sand, Unconsolidated Bottom, Subtidal, Marine	M1UB2-MARINE, SUBTIDAL, UNCONSOL BOTTOM, SAND
M1UB3	Mud, Unconsolidated Bottom, Subtidal, Marine	M1UB3-MARINE, SUBTIDAL, UNCONSOL BOTTOM, MUD
M1UB4	Organic, Unconsolidated Bottom, Subtidal, Marine	M1UB4-MARINE, SUBTIDAL, UNCONSOL BOTTOM, ORGAN
M2	Intertidal, Marine	M2-MARINE, INTERTIDAL
M2AB	Aquatic Bed, Intertidal, Marine	M2AB-MARINE, INTERTIDAL, AQUATIC BED
M2AB1	Algal, Aquatic Bed, Intertidal, Marine	M2AB1-MARINE, INTERTIDAL, AQUATIC BED, ALGAL
M2AB3	Rooted Vascular, Aquatic Bed, Intertidal, Marine	M2AB3-MARINE, INTERTIDAL, AQUAT BED, ROOT VASC
M2AB5	Unknown Submergent, Aquatic Bed, Intertidal, Marine	M2AB5-MARINE, INTERTIDAL, AQUATIC BED, UNK SUB
M2RF	Reef, Intertidal, Marine	M2RF-MARINE, INTERTIDAL, REEF
M2RF1	Coral, Reef, Intertidal, Marine	M2RF1-MARINE, INTERTIDAL, REEF, CORAL
M2RF3	Worm, Reef, Intertidal, Marine	M2RF3-MARINE, INTERTIDAL, REEF, WORM

## Cowardin Codes for ORM Data Entry

M2RS	Rocky Shore, Intertidal, Marine	M2RS-MARINE, INTERTIDAL, ROCKY SHORE
M2RS1	Bedrock, Rocky Shore, Intertidal, Marine	M2RS1-MARINE, INTERTIDAL, ROCKY SHORE, BEDROCK
M2RS2	Rubble, Rocky Shore, Intertidal, Marine	M2RS2-MARINE, INTERTIDAL, ROCKY SHORE, RUBBLE
M2US	Unconsolidated Shore, Intertidal, Marine	M2US-MARINE, INTERTIDAL, UNCONSOLIDATED SHORE
M2US1	Cobble-Gravel, Unconsolidated Shore, Intertidal, Marine	M2US1-MARINE, INTERTIDAL, UNCONSOL SHORE, COBB
M2US2	Sand, Unconsolidated Shore, Intertidal, Marine	M2US2-MARINE, INTERTIDAL, UNCONSOL SHORE, SAND
M2US3	Mud, Unconsolidated Shore, Intertidal, Marine	M2US3-MARINE, INTERTIDAL, UNCONSOL SHORE, MUD
M2US4	Organic, Unconsolidated Shore, Intertidal, Marine	M2US4-MARINE, INTERTIDAL, UNCONSOL SHORE, ORG

**Palustrine (P):** Includes all non-tidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5%. It also includes wetlands lacking such vegetation, but with all of the following characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2 m at low water; and (4) salinity due to ocean-derived salts less than 0.5%. The following is a complete list of Cowardin codes for palustrine waters.

Cowardin Code	Description	Name
P	Palustrine	P-PALUSTRINE
PAB	Aquatic Bed, Palustrine	PAB-PALUSTRINE, AQUA BED
PAB1	Algal, Aquatic Bed, Palustrine	PAB1-PALUSTRINE, AQUA BED, ALGAL
PAB2	Aquatic Moss, Aquatic Bed, Palustrine	PAB2-PALUSTRINE, AQUA BED, AQUATIC MOSS
PAB3	Rooted Vascular, Aquatic Bed, Palustrine	PAB3-PALUSTRINE, AQUA BED, ROOTED VASC
PAB4	Floating Vascular, Aquatic Bed, Palustrine	PAB4-PALUSTRINE, AQUA BED, FLOAT VASC
PAB5	Unknown Submergent, Aquatic Bed, Palustrine	PAB5-PALUSTRINE, AQUA BED, UNK SUB
PAB6	Unknown Surface, Aquatic Bed, Palustrine	PAB6-PALUSTRINE, AQUA BED, UNK SURF
PEM	Emergent, Palustrine	PEM-PALUSTRINE, EMERGENT
PEM1	Persistent, Emergent, Palustrine	PEM1-PALUSTRINE, EMERGENT, PERSISTENT
PEM2	Nonpersistent, Emergent, Palustrine	PEM2-PALUSTRINE, EMERGENT, NONPERSISTENT
PFO	Forested, Palustrine	PFO-PALUSTRINE, FORESTED
PFO1	Broad-Leaved Deciduous, Forested, Palustrine	PFO1-PALUSTRINE, FORESTED, BLD
PFO2	Needle-Leaved Deciduous, Forested, Palustrine	PFO2-PALUSTRINE, FORESTED, NLE

## Cowardin Codes for ORM Data Entry

PFO3	Broad-Leaved Evergreen, Forested, Palustrine	PFO3-PALUSTRINE, FORESTED, BLE
PFO4	Needle-Leaved Evergreen, Forested, Palustrine	PFO4-PALUSTRINE, FORESTED, NLE
PFO5	Dead, Forested, Palustrine	PFO5-PALUSTRINE, FORESTED, DEAD
PFO6	Indeterminate Deciduous, Forested, Palustrine	PFO6-PALUSTRINE, FORESTED, INDET DEC
PFO7	Indeterminate Evergreen, Forested, Palustrine	PFO7-PALUSTRINE, FORESTED, INDETER EVER
PML	Moss-Lichens, Palustrine	PML-PALUSTRINE, MOSS-LICHENS
PML1	Moss, Moss-Lichens, Palustrine	PML1-PALUSTRINE, MOSS-LICHENS, MOSS
PML2	Lichen, Moss-Lichen, Palustrine	PML2-PALUSTRINE, MOSS-LICHEN, LICHEN
POW	POW-PALUSTRINE, OPEN WATER	POW-PALUSTRINE, OPEN WATER
PRB	Rock Bottom, Palustrine	PRB-PALUSTRINE, ROCK BOTTOM
PRB1	Bedrock, Rock Bottom, Palustrine	PRB1-PALUSTRINE, ROCK BOTTOM, BEDROCK
PRB2	Rubble, Rock Bottom, Palustrine	PRB2-PALUSTRINE, ROCK BOTTOM, RUBBLE
PSS	Scrub-Shrub, Palustrine	PSS-PALUSTRINE, SCRUB-SHRUB
PSS1	Broad-Leaved Deciduous, Scrub-Shrub, Palustrine	PSS1-PALUSTRINE, SCRUB-SHRUB, BLD
PSS2	Needle-Leaved Deciduous, Scrub-Shrub, Palustrine	PSS2-PALUSTRINE, SCRUB-SHRUB, NLD
PSS3	Broad-Leaved Evergreen, Scrub-Shrub, Palustrine	PSS3-PALUSTRINE, SCRUB-SHRUB, BLE
PSS4	Needle-Leaved Evergreen, Scrub-Shrub, Palustrine	PSS4-PALUSTRINE, SCRUB-SHRUB, NLE
PSS5	Dead, Scrub-Shrub	PSS5-PALUSTRINE, SCRUB-SHRUB, DEAD
PSS6	Indeterminate Deciduous, Scrub-Shrub, Palustrine	PSS6-PALUSTRINE, SCRUB-SHRUB, INDET DEC
PSS7	Indeterminate Evergreen, Scrub-Shrub, Palustrine	PSS7-PALUSTRINE, SCRUB-SHRUB, INDET EVER
PUB	Unconsolidated Bottom, Palustrine	PUB-PALUSTRINE, UNCONSOL BOT
PUB1	Cobble-Gravel, Unconsolidated Bottom, Palustrine	PUB1-PALUSTRINE, UNCONSOL BOT, COBBLE
PUB2	Sand, Unconsolidated Bottom, Palustrine	PUB2-PALUSTRINE, UNCONSOL BOT, SAND
PUB3	Mud, Unconsolidated Bottom, Palustrine	PUB3-PALUSTRINE, UNCONSOL BOT, MUD
PUB4	Organic, Unconsolidated Bottom, Palustrine	PUB4-PALUSTRINE, UNCONSOL BOT, ORGANIC

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**Riparian (RP):** Plant communities contiguous to and affected by surface and subsurface hydrologic features of perennial or intermittent lotic and lentic water bodies (rivers, streams, lakes, or drainage ways). Riparian areas have one or both of the following characteristics: 1) distinctively different vegetative



## Cowardin Codes for ORM Data Entry

species than adjacent areas, and 2) species similar to adjacent areas but exhibiting more vigorous or robust growth forms. Riparian areas are usually transitional between wetland and upland. The following is a complete list of Cowardin codes for riparian waters.

<b>Cowardin Code</b>	<b>Description</b>	<b>Name</b>
RP	Riparian	RP-RIPARIAN
RP1	Lotic, Riparian	RP1-RIPARIAN, LOTIC
RP1EM	Emergent, Lotic, Riparian	RP1EM-RIPARIAN, LOTIC, EMERGENT
RP1FO	Forested, Lotic, Riparian	RP1FO-RIPARIAN, LOTIC, FORESTED
RP1FO6	Deciduous, Forested, Lotic, Riparian	RP1FO6-RIPARIAN, LOTIC, FORESTED, DECIDUOUS
RP1FO7	Evergreen, Forested, Lotic, Riparian	RP1FO7-RIPARIAN, LOTIC, FORESTED, EVERGREEN
RP1FO8	Mixed, Forested, Lotic, Riparian	RP1FO8-RIPARIAN, LOTIC, FORESTED, MIXED
RP1SS	Scrub-Shrub, Lotic, Riparian	RP1SS-RIPARIAN, LOTIC, SCRUB-SHRUB
RP1SS6	Deciduous, Scrub-Shrub, Lotic, Riparian	RP1SS6-RIPARIAN, LOTIC, SCRUB-SHRUB, DECIDUOUS
RP1SS7	Evergreen, Scrub-Shrub, Lotic, Riparian	RP1SS7-RIPARIAN, LOTIC, SCRUB-SHRUB, EVERGREEN
RP1SS8	Mixed, Scrub-Shrub, Lotic, Riparian	RP1SS8-RIPARIAN, LOTIC, SCRUB-SHRUB, MIXED
RP2	Lentic, Riparian	RP2-RIPARIAN, LENTIC
RP2EM	Emergent, Lentic, Riparian	RP2EM-RIPARIAN, LENTIC, EMERGENT
RP2FO	Forested, Lentic, Riparian	RP2FO-RIPARIAN, LENTIC, FORESTED
RP2FO6	Deciduous, Forested, Lentic, Riparian	RP2FO6-RIPARIAN, LENTIC, FORESTED, DECIDUOUS
RP2FO7	Evergreen, Forested, Lentic, Riparian	RP2FO7-RIPARIAN, LENTIC, FORESTED, EVERGREEN
RP2FO8	Mixed, Forested, Lentic, Riparian	RP2FO8-RIPARIAN, LENTIC, FORESTED, MIXED
RP2SS	Scrub-Shrub, Lentic, Riparian	RP2SS-RIPARIAN, LENTIC, SCRUB-SHRUB
RP2SS6	Deciduous, Scrub-Shrub, Lentic, Riparian	RP2SS6-RIPARIAN, LENTIC, SCRUB-SHRUB, DECIDUOUS
RP2SS7	Evergreen, Scrub-Shrub, Lentic, Riparian	RP2SS7-RIPARIAN, LENTIC, SCRUB-SHRUB, EVERGREEN
RP2SS8	Mixed, Scrub-Shrub, Lentic, Riparian	RP2SS8-RIPARIAN, LENTIC, SCRUB-SHRUB, MIXED

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**Riverine (R):** Includes all wetlands and deepwater habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and (2) habitats with water containing ocean-derived salts in excess of 0.5%. The following is a complete list of Cowardin codes for riverine waters.

<b>Cowardin Code</b>	<b>Description</b>	<b>Name</b>
R	Riverine	R-RIVERINE
R1	Tidal, Riverine	R1-RIVERINE, TIDAL

## Cowardin Codes for ORM Data Entry

R1AB	Aquatic Bed, Tidal, Riverine	R1AB-RIVERINE, TIDAL, AQUATIC BED
R1AB1	Algal, Aquatic Bed, Tidal, Riverine	R1AB1-RIVERINE, TIDAL, AQUATIC BED, ALGAL
R1AB2	Aquatic Moss, Aquatic Bed, Tidal, Riverine	R1AB2-RIVERINE, TIDAL, AQUA BED, MOSS
R1AB3	Rooted Vascular, Aquatic Bed, Tidal, Riverine	R1AB3-RIVERINE, TIDAL, AQUA BED, ROOTED VASC
R1AB4	Floating Vascular, Aquatic Bed, Tidal, Riverine	R1AB4-RIVERINE, TIDAL, AQUA BED, FLOATING VASC
R1AB5	Unknown Submergent, Aquatic Bed, Tidal, Riverine	R1AB5-RIVERINE, TIDAL, AQUA BED, UNK SUBMERGEN
R1AB6	Unknown Surface, Aquatic Bed, Tidal, Riverine	R1AB6-RIVERINE, TIDAL, AQUA BED, UNK SURFACE
R1EM	Emergent, Tidal, Riverine	R1EM-RIVERINE, TIDAL, EMERGENT
R1EM2	Nonpersistent, Emergent, Tidal, Riverine	R1EM2-RIVERINE, TIDAL, EMERGENT, NONPERSISTENT
R1RB	Rock Bottom, Tidal, Riverine	R1RB-RIVERINE, TIDAL, ROCK BOTTOM
R1RB1	Bedrock, Rock Bottom, Tidal, Riverine	R1RB1-RIVERINE, TIDAL, ROCK BOTTOM, BEDROCK
R1RB2	Rubble, Rock Bottom, Tidal, Riverine	R1RB2-RIVERINE, TIDAL, ROCK BOTTOM, RUBBLE
R1RS	Rocky Shore, Tidal, Riverine	R1RS-RIVERINE, TIDAL, ROCKY SHORE
R1RS1	Bedrock, Rocky Shore, Tidal, Riverine	R1RS1-RIVERINE, TIDAL, ROCKY SHORE, BEDROCK
R1RS2	Rubble, Rocky Shore, Tidal, Riverine	R1RS2-RIVERINE, TIDAL, ROCKY SHORE, RUBBLE
R1SB	Streambed, Tidal, Riverine	R1SB-RIVERINE, TIDAL, STREAMBED
R1SB1	Bedrock, Streambed, Tidal, Riverine	R1SB1-RIVERINE, TIDAL, STREAMBED, BEDROCK
R1SB2	Rubble, Streambed, Tidal, Riverine	R1SB2-RIVERINE, TIDAL, STREAMBED, RUBBLE
R1SB3	Cobble-Gravel, Streambed, Tidal, Riverine	R1SB3-RIVERINE, TIDAL, STREAMBED, COBBLE
R1SB4	Sand, Streambed, Tidal, Riverine	R1SB4-RIVERINE, TIDAL, STREAMBED, SAND
R1SB5	Mud, Streambed, Tidal, Riverine	R1SB5-RIVERINE, TIDAL, STREAMBED, MUD
R1SB6	Organic, Streambed, Tidal, Riverine	R1SB6-RIVERINE, TIDAL, STREAMBED, ORGANIC
R1SB7	Vegetated, Streambed, Tidal, Riverine	R1SB7-RIVERINE, TIDAL, STREAMBED, VEGETATED
R1UB	Unconsolidated Bottom, Tidal, Riverine	R1UB-RIVERINE, TIDAL, UNCONSOLIDATED BOTTOM
R1UB1	Cobble-Gravel, Unconsolidated Bottom, Tidal, Riverine	R1UB1-RIVERINE, TIDAL, UNCONSOL BOTTOM, COBBLE
R1UB2	Sand, Unconsolidated Bottom, Tidal, Riverine	R1UB2-RIVERINE, TIDAL, UNCONSOL BOTTOM, SAND
R1UB3	Mud, Unconsolidated Bottom, Tidal, Riverine	R1UB3-RIVERINE, TIDAL, UNCONSOL BOTTOM, MUD

## Cowardin Codes for ORM Data Entry

R1UB4	Organic, Unconsolidated Bottom, Tidal, Riverine	R1UB4-RIVERINE, TIDAL, UNCONSOL BOTTOM, ORGAN
R1US	Unconsolidated Shore, Tidal, Riverine	R1US-RIVERINE, TIDAL, UNCONSOL SHORE
R1US1	Cobble-Gravel, Unconsolidated Shore, Tidal, Riverine	R1US1-RIVERINE, TIDAL, UNCONSOL SHORE, COBBLE
R1US2	Sand, Unconsolidated Shore, Tidal, Riverine	R1US2-RIVERINE, TIDAL, UNCONSOL SHORE, SAND
R1US3	Mud, Unconsolidated Shore, Tidal, Riverine	R1US3-RIVERINE, TIDAL, UNCONSOL SHORE, MUD
R1US4	Organic, Unconsolidated Shore, Tidal, Riverine	R1US4-RIVERINE, TIDAL, UNCONSOL SHORE, ORGANIC
R1US5	Vegetated, Unconsolidated Shore, Tidal, Riverine	R1US5-RIVERINE, TIDAL, UNCONSOL SHORE, VEGETAT
R2	Lower Perennial, Riverine	R2-RIVERINE, LOWER PERENNIAL
R2AB	Aquatic Bed, Lower Tidal, Riverine	R2AB-RIVERINE, LOWER PEREN, AQUA BED
R2AB1	Algal, Aquatic Bed, Lower Tidal, Riverine	R2AB1-RIVERINE, LOWER PEREN, AQUA BED, ALGAL
R2AB2	Aquatic Moss, Aquatic Bed, Lower Tidal, Riverine	R2AB2-RIVERINE, LOWER PEREN, AQUA BED, AQ MOSS
R2AB3	Rooted Vascular, Aquatic Bed, Lower Tidal, Riverine	R2AB3-RIVERINE, LOWER PEREN, AQUA BED, ROOT VASC
R2AB4	Floating Vascular, Aquatic Bed, Lower Tidal, Riverine	R2AB4-RIVERINE, LOWER PEREN, AQUA BED, FLOAT VAS
R2AB5	Unknown Submergent, Aquatic Bed, Lower Tidal, Riverine	R2AB5-RIVERINE, LOWER PEREN, AQUA BED, UNK SUB
R2AB6	Unknown Surface, Aquatic Bed, Lower Tidal, Riverine	R2AB6-RIVERINE, LOWER PEREN, AQUA BED, UNK SURF
R2EM	Emergent, Lower Tidal, Riverine	R2EM-RIVERINE, LOWER PEREN, EMERGENT
R2EM2	Nonpersistent, Emergent, Lower Tidal, Riverine	R2EM2-RIVERINE, LOWER PEREN, EMERGENT, NONPERS
R2RB	Rock Bottom, Lower Perennial, Riverine	R2RB-RIVERINE, LOWER PEREN, ROCK BOTTOM
R2RB1	Bedrock, Rock Bottom, Lower Perennial, Riverine	R2RB1-RIVERINE, LOWER PEREN, ROCK BOT, BEDROCK
R2RB2	Rubble, Rock Bottom, Lower Perennial, Riverine	R2RB2-RIVERINE, LOWER PEREN, TOCK BOT, RUBBLE
R2RS	Rocky Shore, Lower Tidal, Riverine	R2RS-RIVERINE, LOWER PEREN, ROCKY SHORE
R2RS1	Bedrock, Rocky Shore, Lower Tidal, Riverine	R2RS1-RIVERINE, LOWER PEREN, ROCKY SHORE, BEDRK
R2RS2	Rubble, Rocky Shore, Lower Tidal, Riverine	R2RS2-RIVERINE, LOWER PEREN, ROCKY SHORE, RUBBL
R2UB	Unconsolidated Bottom, Lower Perennial, Riverine	R2UB-RIVERINE, LOWER PEREN, UNCONSOL BOT
R2UB1	Cobble-Gravel, Unconsolidated Bottom, Lower Perennial, Riverine	R2UB1-RIVERINE, LOWER PEREN, UNCONSOL BOT, COB

## Cowardin Codes for ORM Data Entry

R2UB2	Sand, Unconsolidated Bottom, Lower Perennial, Riverine	R2UB2-RIVERINE, LOWER PEREN, UNCONSOL BOT, SAN
R2UB3	Mud, Unconsolidated Bottom, Lower Perennial, Riverine	R2UB3-RIVERINE, LOWER PEREN, UNCONSOL BOT, MUD
R2UB4	Organic, Unconsolidated Bottom, Lower Perennial, Riverine	R2UB4-RIVERINE, LOWER PEREN, UNCONSOL BOT, ORG
R2US	Unconsolidated Shore, Lower Tidal, Riverine	R2US-RIVERINE, LOWER PEREN, UNCONSOL SHORE
R2US1	Cobble-Gravel, Unconsolidated Shore, Lower Tidal, Riverine	R2US1-RIVERINE, LOWER PEREN, UNCONSOL SHR, COB
R2US2	Sand, Unconsolidated Shore, Lower Tidal, Riverine	R2US2-RIVERINE, LOWER PEREN, UNCONSOL SHR, SAN
R2US3	Rooted Vascular, Unconsolidated Shore, Lower Tidal, Riverine	R2US3-RIVERINE, LOWER PEREN, UNCONSOL SHR, RV
R2US4	Floating Vascular, Unconsolidated Shore, Lower Tidal, Riverine	R2US4-RIVERINE, LOWER PEREN, UNCONSOL SHR, FV
R2US5	Unknown Submergent, Unconsolidated Shore, Lower Tidal, Riverine	R2US5-RIVERINE, LOWER PEREN, UNCONSOL SHR, UN SUB
R2US6	Unknown Surface, Unknown Surface, Lower Tidal, Riverine	R2US6-RIVERINE, LOWER PEREN, UNCONSOL SHR, UNK SUR
R3	Upper Perennial, Riverine	R3-RIVERINE, UPPER PERENNIAL
R3AB	Aquatic Bed, Upper Perennial, Riverine	R3AB-RIVERINE, UPPER PEREN, AQUA BED
R3AB1	Algal, Aquatic Bed, Upper Perennial, Riverine	R3AB1-RIVERINE, UPPER PEREN, AQUA BED, ALGAL
R3AB2	Aquatic Moss, Aquatic Bed, Upper Perennial, Riverine	R3AB2-RIVERINE, UPPER PEREN, AQUA BED, AQUA MOSS
R3AB3	Rooted Vascular, Aquatic Bed, Upper Perennial, Riverine	R3AB3-RIVERINE, UPPER PEREN, AQUA BED, ROOT VAS
R3AB4	Floating Vascular, Aquatic Bed, Upper Perennial, Riverine	R3AB4-RIVERINE, UPPER PEREN, AQUA BED, FLOAT VAS
R3AB5	Unknown Submergent, Aquatic Bed, Upper Perennial, Riverine	R3AB5-RIVERINE, UPPER PEREN, AQUA BED, UNK SUB
R3AB6	Unknown Surface, Aquatic Bed, Upper Perennial, Riverine	R3AB6-RIVERINE, UPPER PEREN, AQUA BED, UNK SURF
R3RB	Rock Bottom, Upper Perennial, Riverine	R3RB-RIVERINE, UPPER PEREN, ROCK BOTTOM
R3RB1	Bedrock, Rock Bottom, Upper Perennial, Riverine	R3RB1-RIVERINE, UPPER PEREN, ROCK BOT, BEDROCK
R3RB2	Rubble, Rock Bottom, Upper Perennial, Riverine	R3RB2-RIVERINE, UPPER PEREN, ROCK BOT, RUBBLE
R3RS	Rocky Shore, Upper Perennial, Riverine	R3RS-RIVERINE, UPPER PEREN, ROCKY SHORE
R3RS1	Bedrock, Rocky Shore, Upper Perennial, Riverine	R3RS1-RIVERINE, UPPER PEREN, ROCKY SHR, BEDROCK
R3RS2	Rubble, Rocky Shore, Upper Perennial, Riverine	R3RS2-RIVERINE, UPPER PEREN, ROCKY SHR, RUBBLE

## Cowardin Codes for ORM Data Entry

R3UB	Unconsolidated Bottom, Upper Perennial, Riverine	R3UB-RIVERINE, UPPER PEREN, UNCONSOL BOT
R3UB1	Cobble-Gravel, Unconsolidated Bottom, Upper Perennial, Riverine	R3UB1-RIVERINE, UPPER PEREN, UNCONSOL BOT, COBBLE
R3UB2	Sand, Unconsolidated Bottom, Upper Perennial, Riverine	R3UB2-RIVERINE, UPPER PEREN, UNCONSOL BOT, SAND
R3UB3	Mud, Unconsolidated Bottom, Upper Perennial, Riverine	R3UB3-RIVERINE, UPPER PEREN, UNCONSOL BOT, MUD
R3UB4	Organic, Unconsolidated Bottom, Upper Perennial, Riverine	R3UB4-RIVERINE, UPPER PEREN, UNCONSOL BOT, ORGAN
R3US	Unconsolidated Shore, Upper Perennial, Riverine	R3US-RIVERINE, UPPER PEREN, UNCONSOL SHR
R3US1	Cobble-Gravel, Unconsolidated Shore, Upper Perennial, Riverine	R3US1-RIVERINE, UPPER PEREN, UNCONSOL SHR, COBBLE
R3US2	Sand, Unconsolidated Shore, Upper Perennial, Riverine	R3US2-RIVERINE, UPPER PEREN, UNCONSOL SHR, SAND
R3US3	Mud, Unconsolidated Shore, Upper Perennial, Riverine	R3US3-RIVERINE, UPPER PEREN, UNCONSOL SHR, MUD
R3US4	Organic, Unconsolidated Shore, Upper Perennial, Riverine	R3US4-RIVERINE, UPPER PEREN, UNCONSOL SHR, ORGANIC
R3US5	Vegetated, Unconsolidated Shore, Upper Perennial, Riverine	R3US5-RIVERINE, UPPER PEREN, UNCONSOL SHR, VEGETATED
R4	Intermittent, Riverine	R4-RIVERINE, INTERMIT
R4SB	Streambed, Intermittent, Riverine	R4SB-RIVERINE, INTERMIT, STREAMBED
R4SB1	Bedrock, Streambed, Intermittent, Riverine	R4SB1-RIVERINE, INTERMIT, STREAMBED, BEDROCK
R4SB2	Rubble, Streambed, Intermittent, Riverine	R4SB2-RIVERINE, INTERMIT, STREAMBED, RUBBLE
R4SB3	Cobble-Gravel, Streambed, Intermittent, Riverine	R4SB3-RIVERINE, INTERMIT, STREAMBED, COBBLE
R4SB4	Sand, Streambed, Intermittent, Riverine	R4SB4-RIVERINE, INTERMIT, STREAMBED, SAND
R4SB5	Mud, Streambed, Intermittent, Riverine	R4SB5-RIVERINE, INTERMIT, STREAMBED, MUD
R4SB6	Organic, Streambed, Intermittent, Riverine	R4SB6-RIVERINE, INTERMIT, STREAMBED, ORGANIC
R4SB7	Vegetated, Streambed, Intermittent, Riverine	R4SB7-RIVERINE, INTERMIT, STREAMBED, VEGETATED
R5	Unknown Perennial, Riverine	R5-RIVERINE, UNKNOWN PERENNIAL
R5AB	Aquatic Bed, Unknown Perennial, Riverine	R5AB-RIVERINE, UNK PEREN, AQUA BED
R5AB1	Algal, Aquatic Bed, Unknown Perennial, Riverine	R5AB1-RIVERINE, UNK PEREN, AQUA BED, ALGAL
R5AB2	Aquatic Moss, Aquatic Bed, Unknown Perennial, Riverine	R5AB2-RIVERINE, UNK PEREN, AQUA BED, AQUA MOSS

## Cowardin Codes for ORM Data Entry

R5AB3	Rooted Vascular, Aquatic Bed, Unknown Perennial, Riverine	R5AB3-RIVERINE, UNK PEREN, AQUA BED, ROOT VASC
R5AB4	Floating Vascular, Aquatic Bed, Unknown Perennial, Riverine	R5AB4-RIVERINE, UNK PEREN, AQUA BED, FLOAT VASC
R5AB5	Unknown Submergent, Aquatic Bed, Unknown Perennial, Riverine	R5AB5-RIVERINE, UNK PEREN, AQUA BED, UNK SUB
R5AB6	Unknown Surface, Aquatic Bed, Unknown Perennial, Riverine	R5AB6-RIVERINE, UNK PEREN, AQUA BED, UNK SURF
R5RB	Rock Bottom, Unknown Perennial, Riverine	R5RB-RIVERINE, UNK PEREN, ROCK BOTTOM
R5RB1	Bedrock, Rock Bottom Unknown Perennial, Riverine	R5RB1-RIVERINE, UNK PEREN, ROCK BOTTOM, BEDROCK
R5RB2	Rubble, Rock Bottom, Unknown Perennial, Riverine	R5RB2-RIVERINE, UNK PEREN, ROCK BOTTOM, RUBBLE
R5RS	Rocky Shore, Unknown Perennial, Riverine	R5RS-RIVERINE, UNK PEREN, ROCKY SHORE
R5RS1	Bedrock, Rocky Shore, Unknown Perennial, Riverine	R5RS1-RIVERINE, UNK PEREN, ROCKY SHORE, BEDROCK
R5RS2	Rubble, Rocky Shore, Unknown Perennial, Riverine	R5RS2-RIVERINE, UNK PEREN, ROCKY SHORE, RUBBLE
R5UB	Unconsolidated Bottom, Unknown Perennial, Riverine	R5UB-RIVERINE, UNK PEREN, UNCONSOLIDATED BOTTOM
R5UB1	Cobble-Gravel, Unconsolidated Bottom, Unknown Perennial, Riverine	R5UB1-RIVERINE, UNK PEREN, UNCONSOL BOT, COBBLE
R5UB2	Sand, Unconsolidated Bottom, Unknown Perennial, Riverine	R5UB2-RIVERINE, UNK PEREN, UNCONSOT BOT, SAND
R5UB3	Mud, Unconsolidated Bottom, Unknown Perennial, Riverine	R5UB3-RIVERINE, UNK PEREN, UNCONSOL BOT, MUD
R5UB4	Organic, Unconsolidated Bottom, Unknown Perennial, Riverine	R5UB4-RIVERINE, UNK PEREN, UNCONSOL BOT, ORGANIC
R5US	Unconsolidated Shore, Unknown Perennial, Riverine	R5US-RIVERINE, UNK PEREN, UNCONCOL SHORE
R5US1	Cobble-Gravel, Unconsolidated Shore, Riverine	R5US1-RIVERINE, UNK PEREN, UNCONSOL SHR, COBBLE
R5US2	Sand, Unconsolidated Shore, Unknown Perennial, Riverine	R5US2-RIVERINE, UNK PEREN, UNCONSOL SHR, SAND
R5US3	Mud, Unconsolidated Shore, Unknown Perennial, Riverine	R5US3-RIVERINE, UNK PEREN, UNCONSOL SHR, MUD
R5US4	Organic, Unconsolidated Shore, Unknown Perennial, Riverine	R5US4-RIVERINE, UNK PEREN, UNCONSOL SHR, ORGANIC
R5US5	Vegetated, Unconsolidated Shore, Unknown Perennial, Riverine	R5US5-RIVERINE, UNK PEREN, UNCONSOL SHR, VEGETATED
R6	A wetland, spring, stream, river, pond or lake that only exists for a short period	R6 - RIVERINE, EPHEMERAL

## Cowardin Codes for ORM Data Entry

**Upland (U):** Not a wetland or deepwater habitat as described by Cowardin.

<b>Cowardin Code</b>	<b>Description</b>	<b>Name</b>
U	Upland	U-UPLANDS

## Cowardin Codes for ORM Data Entry

### Appendix 2: HGM Codes

<b>HGM Code</b>	<b>Name</b>	<b>Description</b>
DEPRESS	Depressional	Depressional is characterized by a water source consisting of return flow from groundwater and interflow with primarily vertical hydrodynamics.
ESTUARINEF	Estuarine Fringed	The water source of the estuarine fringe consists of overbank flow from estuaries, with bidirectional and horizontal hydrodynamics being dominant.
LACUSTRINF	Lacustrine Fringe	A Lacustrine fringe has a dominant water source of lake overbank flow, and the dominant hydrodynamics are bidirectional and horizontal.
MINSOILFLT	Mineral Soil Flats	Mineral soil flats have a water source of precipitation, and vertical hydrodynamics are dominant.
ORGSOILFLT	Organic Soil Flats	Organic soil flats have precipitation as the water source, and its dominant hydrodynamic is vertical.
RIVERINE	Riverine	Riverine is characterized by a water source of overbank flow from a channel, and hydrodynamics which are predominantly unidirectional and horizontal.
SLOPE	Slope	The Slope wetland class is characterized by a water source of return flow from groundwater, with principally unidirectional and horizontal hydrodynamics.