APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): December 13, 2012

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:NWO-2012-2440-BIS, Hwy 5 Road Improvements

C. PROJECT LOCATION AND BACKGROUND INFORMATION:Isolated Wetlands
State:North Dakota County/parish/borough:Burke/DivideCity:Noonan to Columbus
Center coordinates of site (lat/long in degree decimal format): Lat. SEE ATTACHED ISOLATED WETLAND TABLEN;
Long. W
Universal Transverse Mercator:
Name of nearest waterbody: Isolated Wetlands
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows:None
Name of watershed or Hydrologic Unit Code (HUC):Upper Souris - 9010001
☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☒ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☒ Office (Desk) Determination. Date:November 15, 2012
☒ Field Determination. Date(s): **May 21, 2012 by Carlson McCain, Inc. for NDDOT**

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** *"navigable waters of the U.S."* within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]
☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are no** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☐ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
      ☐ Non-RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
      ☐ Impoundments of jurisdictional waters
      ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
      Non-wetland waters: linear feet: width (ft) and/or acres.
      Wetlands: acres.

   c. **Limits (boundaries) of jurisdiction** based on: **Pick List**
      Elevation of established OHWM (if known): .

2. **Non-regulated waters/wetlands (check if applicable):** [3]
   ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain: These 38 wetland basins are mainly artificial wetlands occurring in roadside ditches. These wetlands have no discernible surface outlets, do not support fish or shellfish that could be taken and sold in interstate or foreign commerce and are not used for industrial purposes by industries in interstate commerce. Based upon these principle considerations, it is determined that the subject wetlands are isolated and nonjurisdictional under the auspices of Section 404 of the Clean Water Act.

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[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW: .

Summarize rationale supporting determination: .

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent": .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:
Watershed size: **Pick List**
Drainage area: **Pick List**
Average annual rainfall: inches
Average annual snowfall: inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☐ Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are **Pick List** river miles from TNW.
Project waters are **Pick List** river miles from RPW.
Project waters are **Pick List** aerial (straight) miles from TNW.
Project waters are **Pick List** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: .

Identify flow route to TNW[5]: .
Tributary stream order, if known: .

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☐ Manipulated (man-altered). Explain: .

Tributary properties with respect to top of bank (estimate):
Average width: feet
Average depth: feet
Average side slopes: **Pick List.**

Primary tributary substrate composition (check all that apply):

☐ Silts	☐ Sands	☐ Concrete
☐ Cobbles	☐ Gravel	☐ Muck
☐ Bedrock	☐ Vegetation. Type/% cover:	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: .
Presence of run/riffle/pool complexes. Explain: .
Tributary geometry: **Pick List**
Tributary gradient (approximate average slope): %

(c) Flow:
Tributary provides for: **Pick List**
Estimate average number of flow events in review area/year: **Pick List**
Describe flow regime: .
Other information on duration and volume: .

Surface flow is: **Pick List.** Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
☐ Bed and banks
☐ OHWM[6] (check all indicators that apply):

☐ clear, natural line impressed on the bank	☐ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ the presence of wrack line
☐ vegetation matted down, bent, or absent	☐ sediment sorting
☐ leaf litter disturbed or washed away	☐ scour
☐ sediment deposition	☐ multiple observed or predicted flow events
☐ water staining	☐ abrupt change in plant community
☐ other (list):	

☐ Discontinuous OHWM.[7] Explain: .

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.
☐ tidal gauges	
☐ other (list):	

(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: .
Identify specific pollutants, if known: .

[6]A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7]Ibid.

(iv) Biological Characteristics. Channel supports (check all that apply):

- ☐ Riparian corridor. Characteristics (type, average width): .
- ☐ Wetland fringe. Characteristics: .
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: acres

Wetland type. Explain: .

Wetland quality. Explain: .

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain: .

Surface flow is**: Pick List**

Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

- ☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

- ☐ Directly abutting
- ☐ Not directly abutting
  - ☐ Discrete wetland hydrologic connection. Explain: .
  - ☐ Ecological connection. Explain: .
  - ☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List.**

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .

Identify specific pollutants, if known: .

(iii) Biological Characteristics. Wetland supports (check all that apply):

- ☐ Riparian buffer. Characteristics (type, average width): .
- ☐ Vegetation type/percent cover. Explain: .
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately ( ) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

Summarize overall biological, chemical and physical functions being performed: .

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.[9]**
As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]
☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

[8] See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):
☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☒ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☒ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☒ Wetlands: 22.5 acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:Wetland Delineation report submitted by NDDOT.
☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☒ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☐ U.S. Geological Survey Hydrologic Atlas: .
☐ USGS NHD data.
☒ USGS 8 and 12 digit HUC maps.
☒ U.S. Geological Survey map(s). Cite scale & quad name: USGS 1:24k Quads - Noonan & Columbus.
☒ USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS Soil Survey of Burke and Divide Counties, 2012.
☒ National wetlands inventory map(s). Cite name: USFWS NWI/GIS.
☐ State/Local wetland inventory map(s): .
☐ FEMA/FIRM maps: .
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☒ Photographs: ☒ Aerial (Name & Date): Google Earth; .
or ☒ Other (Name & Date):On-site photos.
☐ Previous determination(s). File no. and date of response letter: .
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: Maps and supporting data is available upon request.

NWO-2012-2440-BIS
CBN-7-005(021)048, PCN 19706
ND 5 Noonan to Columbus, North Dakota
Isolated Wetlands Table

Wetland ID	Lat/Long	Size (acres)
1	48.894227 -103.005077	0.21
2	48.894605 -103.002515	0.49
3	48.894313 -103.002518	0.87
4	48.894317 -102.998754	0.23
5	48.894590 -102.994498	0.48
6	48.894177 -102.990936	0.12
8	48.894927 -102.967640	0.52
9	48.894974 -102.962678	0.14
10	48.895151 -102.952357	1.44
11	48.894644 -102.935395	0.08
12	48.894636 -102.933144	0.04
14	48.894394 -102.920325	0.02
15	48.894388 -102.918716	0.01
16	48.894779 -102.908673	1.85
18	48.894325 -102.902831	0.13
19	48.894330 -102.899706	0.49
20	48.894287 -102.898940	0.56
21	48.894745 -102.891650	0.13
22	48.894357 -102.890199	1.14
23	48.894651 -102.880411	0.41
24	48.894412 -102.878321	0.06
25	48.894324 -102.874766	0.05
26	48.894650 -102.863270	1.91
27	48.894300 -102.863750	0.07
28	48.894786 -102.850693	1.20
29	48.894389 -102.852923	0.16
30	48.894382 -102.844069	3.08
31	48.894692 -102.833014	1.06
32	48.894360 -102.831973	0.95
33	48.894760 -102.828727	0.45
34	48.894728 -102.823830	0.10
36	48.894329 -102.815414	0.43
37	48.894795 -102.812759	0.43
38	48.894622 -102.787425	3.14
39	48.894391 -102.794495	0.05
40	48.894383 -102.793197	0.07
41	48.894335 -102.791152	0.04
42	48.894288 -102.789045	0.05
TOTAL		22.5

Waters_Name	Cowadin_Code	HGM_Code	Measurement_Type	Amount	Units	Waters_Types	Latitude	Longitude	Local_Waterway
2012-2044-BIS Wetland 1	PEM	RIVERINE	Area	0.21	ACRE	NRPW	48.98128828	-103.4693055	Wetland
2012-2044-BIS Wetland 2	PEM	DEPRESS	Area	0.5	ACRE	ISOLATE	48.98128335	-103.4809692	Wetland
2012-2044-BIS Wetland 3	PEM	DEPRESS	Area	0.01	ACRE	ISOLATE	48.98119765	-103.487163	Wetland
2012-2044-BIS Wetland 4	PEM	DEPRESS	Area	0.23	ACRE	ISOLATE	48.98145771	-103.4938993	Wetland
2012-2044-BIS Wetland 5	PEM	DEPRESS	Area	0.07	ACRE	ISOLATE	48.98121071	-103.4937855	Wetland
2012-2044-BIS Wetland 6	PEM	DEPRESS	Area	0.02	ACRE	ISOLATE	48.98136832	-103.4967144	Wetland
2012-2044-BIS Wetland 7	PEM	DEPRESS	Area	0.001	ACRE	ISOLATE	48.98137809	-103.4979439	Wetland
2012-2044-BIS Wetland 8	PEM	DEPRESS	Area	0.06	ACRE	ISOLATE	48.98122311	-103.4994448	Wetland
2012-2044-BIS Wetland 9	PEM	DEPRESS	Area	0.03	ACRE	ISOLATE	48.98122451	-103.5029281	Wetland
2012-2044-BIS Wetland 10	PEM	DEPRESS	Area	0.03	ACRE	ISOLATE	48.98122558	-103.5054888	Wetland
2012-2044-BIS Wetland 11	PEM	DEPRESS	Area	0.03	ACRE	ISOLATE	48.98122252	-103.5084674	Wetland
2012-2044-BIS Wetland 12	PEM	RIVERINE	Area	0.05	ACRE	NRPW	48.98137545	-103.5107651	Wetland
2012-2044-BIS Wetland 13	PEM	RIVERINE	Area	0.07	ACRE	NRPW	48.98122558	-103.510443	Wetland
2012-2044-BIS Wetland 14	PEM	DEPRESS	Area	0.08	ACRE	ISOLATE	48.98122938	-103.5178944	Wetland
2012-2044-BIS Wetland 15	PEM	DEPRESS	Area	0.08	ACRE	ISOLATE	48.9812307	-103.5198308	Wetland
2012-2044-BIS Wetland 16	PEM	DEPRESS	Area	0.04	ACRE	ISOLATE	48.9813812	-103.520163	Wetland
2012-2044-BIS Wetland 17	PEM	DEPRESS	Area	0.01	ACRE	ISOLATE	48.98138577	-103.524497	Wetland
2012-2044-BIS Wetland 18	PEM	DEPRESS	Area	0.07	ACRE	ISOLATE	48.9812374	-103.524009	Wetland
2012-2044-BIS Wetland 19	PEM	DEPRESS	Area	0.26	ACRE	ISOLATE	48.98129224	-103.5265603	Wetland
2012-2044-BIS Wetland 20	PEM	DEPRESS	Area	0.03	ACRE	ISOLATE	48.98139128	-103.5325071	Wetland
2012-2044-BIS Wetland 21	PEM	DEPRESS	Area	0.07	ACRE	ISOLATE	48.98139245	-103.5363554	Wetland
2012-2044-BIS Wetland 22	PEM	DEPRESS	Area	0.08	ACRE	ISOLATE	48.98123796	-103.5361214	Wetland
2012-2044-BIS Wetland 23	PEM	DEPRESS	Area	0.04	ACRE	ISOLATE	48.98123349	-103.5388943	Wetland
2012-2044-BIS Wetland 24	PEM	DEPRESS	Area	0.03	ACRE	ISOLATE	48.98139776	-103.5390082	Wetland
2012-2044-BIS Wetland 25	PEM	DEPRESS	Area	0.01	ACRE	ISOLATE	48.98140133	-103.5415001	Wetland
2012-2044-BIS Wetland 26	PEM	DEPRESS	Area	0.26	ACRE	ISOLATE	48.98125257	-103.5420702	Wetland
2012-2044-BIS Wetland 27	PEM	DEPRESS	Area	0.05	ACRE	ISOLATE	48.98139809	-103.5427583	Wetland
2012-2044-BIS Wetland 28	PEM	RIVERINE	Area	0.19	ACRE	NRPW	48.98132164	-103.5470337	Wetland
2012-2044-BIS Wetland 29	PEM	DEPRESS	Area	0.09	ACRE	ISOLATE	48.98140402	-103.5549229	Wetland
2012-2044-BIS Wetland 30	PEM	DEPRESS	Area	0.03	ACRE	ISOLATE	48.98124841	-103.5546668	Wetland
2012-2044-BIS Wetland 31	PEM	DEPRESS	Area	0.07	ACRE	ISOLATE	48.9812513	-103.5582922	Wetland
2012-2044-BIS Wetland 32	PEM	DEPRESS	Area	0.02	ACRE	ISOLATE	48.98140837	-103.5584349	Wetland
2012-2044-BIS Wetland 33	PEM	DEPRESS	Area	0.06	ACRE	ISOLATE	48.98140814	-103.5629859	Wetland
2012-2044-BIS Wetland 34	PEM	DEPRESS	Area	0.1	ACRE	ISOLATE	48.98125437	-103.562662	Wetland
2012-2044-BIS Wetland 35	PEM	DEPRESS	Area	0.2	ACRE	ISOLATE	48.98125375	-103.5663826	Wetland
2012-2044-BIS Wetland 36	PEM	DEPRESS	Area	0.34	ACRE	ISOLATE	48.9814819	-103.5666692	Wetland
2012-2044-BIS Wetland 37	PEM	DEPRESS	Area	0.02	ACRE	ISOLATE	48.98125667	-103.5686093	Wetland
2012-2044-BIS Wetland 38	PEM	DEPRESS	Area	0.01	ACRE	ISOLATE	48.98126068	-103.5747941	Wetland
2012-2044-BIS Wetland 39	PEM	DEPRESS	Area	0.03	ACRE	ISOLATE	48.98125239	-103.575318	Wetland
2012-2044-BIS Wetland 40	PEM	DEPRESS	Area	0.01	ACRE	ISOLATE	48.98141641	-103.5758214	Wetland
2012-2044-BIS Wetland 41	PEM	DEPRESS	Area	0.58	ACRE	ISOLATE	48.98126665	-103.5792083	Wetland
2012-2044-BIS Wetland 42	PEM	DEPRESS	Area	0.16	ACRE	ISOLATE	48.98141194	-103.5799608	Wetland
2012-2044-BIS Wetland 43	PEM	DEPRESS	Area	0.1	ACRE	ISOLATE	48.98126085	-103.5829533	Wetland
2012-2044-BIS Wetland 44	PEM	DEPRESS	Area	0.52	ACRE	ISOLATE	48.98167859	-103.5838114	Wetland
2012-2044-BIS Wetland 45	PEM	DEPRESS	Area	0.05	ACRE	ISOLATE	48.98141424	-103.5854931	Wetland
2012-2044-BIS Wetland 46	PEM	DEPRESS	Area	0.15	ACRE	ISOLATE	48.98127045	-103.5853753	Wetland
2012-2044-BIS Wetland 47	PEM	DEPRESS	Area	0.031	ACRE	ISOLATE	48.98126398	-103.587981	Wetland
2012-2044-BIS Wetland 48	PEM	DEPRESS	Area	0.69	ACRE	ISOLATE	48.98117955	-103.591161	Wetland
2012-2044-BIS Wetland 49	PEM	DEPRESS	Area	0.05	ACRE	ISOLATE	48.98141946	-103.5910941	Wetland
2012-2044-BIS Wetland 50	PEM	DEPRESS	Area	0.091	ACRE	ISOLATE	48.98126068	-103.5932116	Wetland
2012-2044-BIS Wetland 51	PEM	DEPRESS	Area	0.11	ACRE	ISOLATE	48.98141568	-103.5953668	Wetland
2012-2044_BIS Wetland 52	PEM	DEPRESS	Area	0.18	ACRE	ISOLATE	48.98127342	-103.5952685	Wetland
2012-2044-BIS Wetland 53	PEM	DEPRESS	Area	0.08	ACRE	ISOLATE	48.98141069	-103.5973094	Wetland
2012-2044-BIS Wetland 54	PEM	DEPRESS	Area	0.26	ACRE	ISOLATE	48.98134267	-103.5984851	Wetland
2012-2044-BIS Wetland 55	PEM	DEPRESS	Area	0.52	ACRE	ISOLATE	48.98135912	-103.6004059	Wetland
2012-2044-BIS Wetland 56	PEM	DEPRESS	Area	0.35	ACRE	ISOLATE	48.98135416	-103.6033733	Wetland
2012-2044-BIS Wetland 57	PEM	DEPRESS	Area	0.12	ACRE	ISOLATE	48.98020678	-103.5920071	Wetland
2012-2044-BIS Wetland 58	PEM	DEPRESS	Area	0.07	ACRE	ISOLATE	48.98082585	-103.5904215	Wetland
2012-2044-BIS Wetland 59	PEM	DEPRESS	Area	0.15	ACRE	ISOLATE	48.97996244	-103.5863864	Wetland
2012-2044-BIS Wetland 60	PEM	DEPRESS	Area	0.13	ACRE	ISOLATE	48.98266666	-103.5840834	Wetland
2012-2044-BIS Wetland 61	PEM	DEPRESS	Area	0.36	ACRE	ISOLATE	48.98089369	-103.5731435	Wetland
2012-2044-BIS Wetland 62	PEM	DEPRESS	Area	0.01	ACRE	ISOLATE	48.98256324	-103.5680463	Wetland

2012-2044-BIS Wetland 63	PEM	DEPRESS	Area	0.1	ACRE	ISOLATE	48.98228982	-103.5661416	Wetland
2012-2044-BIS Wetland 64	PEM	DEPRESS	Area	0.27	ACRE	ISOLATE	48.98060378	-103.477317	Wetland

Waters_Name	Cowardin_Code	HGM_Code	Meaurement_Type	Amount	Units_Area	Units_Linear
100 chars	E	DEPRESS	Area	Number	ACRE	FOOT
	E1	ESTUARINEF	Linear		HECTARE	KM
	E1AB	LACUSTRINF			SQ_FT	M
	E1AB1	MINSOILFLT			SQ_KM	MILE
	E1AB3	ORGSOILFLT			SQ_M	YARD
	E1AB4	RIVERINE			SQ_MILE	
	E1AB5	SLOPE			SQ_YARD	
	E1AB6					
	E1OW					
	E1RB					
	E1RB1					
	E1RB2					
	E1RF					
	E1RF2					
	E1RF3					
	E1UB					
	E1UB1					
	E1UB2					
	E1UB3					
	E1UB4					
	E2					
	E2AB					
	E2AB1					
	E2AB3					
	E2AB4					
	E2AB5					
	E2AB6					
	E2EM					
	E2EM1					
	E2EM2					
	E2FO					
	E2FO1					
	E2FO2					
	E2FO3					
	E2FO4					
	E2FO5					
	E2FO6					
	E2FO7					
	E2RF					
	E2RF2					
	E2RF3					
	E2RS					
	E2RS1					
	E2RS2					
	E2SB					
	E2SB3					
	E2SB4					
	E2SB5					
	E2SB6					
	E2SS					
	E2SS1					
	E2SS2					
	E2SS3					
	E2SS4					

E2SS5
E2SS6
E2SS7
E2US
E2US1
E2US2
E2US3
E2US4
L
L1
L1AB
L1AB1
L1AB2
L1AB3
L1AB4
L1AB5
L1AB6
L1OW
L1RB
L1RB1
L1RB2
L1UB
L1UB1
L1UB2
L1UB3
L1UB4
L2
L2AB
L2AB1
L2AB2
L2AB3
L2AB4
L2AB5
L2AB6
L2EM
L2EM2
L2OW
L2RB
L2RB1
L2RB2
L2RS
L2RS1
L2RS2
L2UB
L2UB1
L2UB2
L2UB3
L2UB4
L2US
L2US1
L2US2
L2US3
L2US4
L2US5
M

M1
M1AB
M1AB1
M1AB3
M1AB5
M1OW
M1RB
M1RB1
M1RB2
M1RF
M1RF1
M1RF3
M1UB
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M1UB2
M1UB3
M1UB4
M2
M2AB
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M2AB3
M2AB5
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M2RF3
M2RS
M2RS1
M2RS2
M2US
M2US1
M2US2
M2US3
M2US4
P
PAB
PAB1
PAB2
PAB3
PAB4
PAB5
PAB6
PEM
PEM1
PEM2
PFO
PFO1
PFO2
PFO3
PFO4
PFO5
PFO6
PFO7
PML
PML1
PML2

POW
PRB
PRB1
PRB2
PSS
PSS1
PSS2
PSS3
PSS4
PSS5
PSS6
PSS7
PUB
PUB1
PUB2
PUB3
PUB4
RP
RP1
RP1EM
RP1FO
RP1FO6
RP1FO7
RP1FO8
RP1SS
RP1SS6
RP1SS7
RP1SS8
RP2
RP2EM
RP2FO
RP2FO6
RP2FO7
RP2FO8
RP2SS
RP2SS6
RP2SS7
RP2SS8
R
R1
R1AB
R1AB1
R1AB2
R1AB3
R1AB4
R1AB5
R1AB6
R1EM
R1EM2
R1RB
R1RB1
R1RB2
R1RS
R1RS1
R1RS2

R1SB
R1SB1
R1SB2
R1SB3
R1SB4
R1SB5
R1SB6
R1SB7
R1UB
R1UB1
R1UB2
R1UB3
R1UB4
R1US
R1US1
R1US2
R1US3
R1US4
R1US5
R2
R2AB
R2AB1
R2AB2
R2AB3
R2AB4
R2AB5
R2AB6
R2EM
R2EM2
R2RB
R2RB1
R2RB2
R2RS
R2RS1
R2RS2
R2UB
R2UB1
R2UB2
R2UB3
R2UB4
R2US
R2US1
R2US2
R2US3
R2US4
R2US5
R2US6
R3
R3AB
R3AB1
R3AB2
R3AB3
R3AB4
R3AB5
R3AB6

R3RB
R3RB1
R3RB2
R3RS
R3RS1
R3RS2
R3UB
R3UB1
R3UB2
R3UB3
R3UB4
R3US
R3US1
R3US2
R3US3
R3US4
R3US5
R4
R4SB
R4SB1
R4SB2
R4SB3
R4SB4
R4SB5
R4SB6
R4SB7
R5
R5AB
R5AB1
R5AB2
R5AB3
R5AB4
R5AB5
R5AB6
R5RB
R5RB1
R5RB2
R5RS
R5RS1
R5RS2
R5UB
R5UB1
R5UB2
R5UB3
R5UB4
R5US
R5US1
R5US2
R5US3
R5US4
R5US5
R6
U

Waters_Type	Latitude	Longitude	Local_Waterway
DELINEATE	Number	Number	500 chars
TNW			
TNWW			
RPW			
RPWWD			
RPWWN			
NRPW			
NRPWW			
ISOLATE			
UPLAND			
TNWRPW			

Column Headers in GREEN on UPLOAD Tab are Required
VALIDATION
"Waters_Name" is required.
"Waters_Name" must contain unique values.
"Cowardin Code" is required.
"Measurement_Type" is required.
"Amount" is required.
"Units" is required
"Waters Type" is required
"Latitude" is required.
"Longitude" is required (negative value in western hemisphere).
"Waters_Name" must correspond to "Waters_Name" provided within the NWP, Impact and Mitigation fileds when als

so uploaded.

Waters_Type
DELINEATE
TNW
TNWW
RPW
RPWWD
RPWWN
NRPW
NRPWW
ISOLATE
UPLAND
TNWRPW

HGM_Code	Name
DEPRESS	Depressional
ESTUARINEF	Estuarine Fringed
LACUSTRINF	Lacustrine Fringe
MINSOILFLT	Mineral Soil Flats
ORGSOILFLT	Organic Soil Flats
RIVERINE	Riverine
SLOPE	Slope

Cowardin_Code	Category
E	Estuarine
E1	Estuarine
E1AB	Estuarine
E1AB1	Estuarine
E1AB3	Estuarine
E1AB4	Estuarine
E1AB5	Estuarine
E1AB6	Estuarine
E1OW	Estuarine
E1RB	Estuarine
E1RB1	Estuarine
E1RB2	Estuarine
E1RF	Estuarine
E1RF2	Estuarine
E1RF3	Estuarine
E1UB	Estuarine
E1UB1	Estuarine
E1UB2	Estuarine
E1UB3	Estuarine
E1UB4	Estuarine
E2	Estuarine

E2AB	Estuarine
E2AB1	Estuarine
E2AB3	Estuarine
E2AB4	Estuarine
E2AB5	Estuarine
E2AB6	Estuarine
E2EM	Estuarine
E2EM1	Estuarine
E2EM2	Estuarine
E2FO	Estuarine
E2FO1	Estuarine
E2FO2	Estuarine
E2FO3	Estuarine
E2FO4	Estuarine
E2FO5	Estuarine
E2FO6	Estuarine
E2FO7	Estuarine
E2RF	Estuarine
E2RF2	Estuarine
E2RF3	Estuarine
E2RS	Estuarine
E2RS1	Estuarine
E2RS2	Estuarine
E2SB	Estuarine
E2SB3	Estuarine
E2SB4	Estuarine
E2SB5	Estuarine
E2SB6	Estuarine
E2SS	Estuarine
E2SS1	Estuarine
E2SS2	Estuarine
E2SS3	Estuarine
E2SS4	Estuarine
E2SS5	Estuarine
E2SS6	Estuarine
E2SS7	Estuarine
E2US	Estuarine
E2US1	Estuarine
E2US2	Estuarine
E2US3	Estuarine
E2US4	Estuarine
L	Lacustrine

L1	Lacustrine

L1AB	Lacustrine
L1AB1	Lacustrine
L1AB2	Lacustrine
L1AB3	Lacustrine
L1AB4	Lacustrine
L1AB5	Lacustrine
L1AB6	Lacustrine
L1OW	Lacustrine
L1RB	Lacustrine
L1RB1	Lacustrine
L1RB2	Lacustrine
L1UB	Lacustrine
L1UB1	Lacustrine
L1UB2	Lacustrine
L1UB3	Lacustrine
L1UB4	Lacustrine
L2	Lacustrine
L2AB	Lacustrine
L2AB1	Lacustrine
L2AB2	Lacustrine
L2AB3	Lacustrine
L2AB4	Lacustrine
L2AB5	Lacustrine
L2AB6	Lacustrine
L2EM	Lacustrine
L2EM2	Lacustrine
L2OW	Lacustrine
L2RB	Lacustrine
L2RB1	Lacustrine
L2RB2	Lacustrine
L2RS	Lacustrine
L2RS1	Lacustrine
L2RS2	Lacustrine
L2UB	Lacustrine
L2UB1	Lacustrine
L2UB2	Lacustrine
L2UB3	Lacustrine
L2UB4	Lacustrine
L2US	Lacustrine
L2US1	Lacustrine
L2US2	Lacustrine
L2US3	Lacustrine
L2US4	Lacustrine
L2US5	Lacustrine

M	Marine
M1	Marine
M1AB	Marine
M1AB1	Marine
M1AB3	Marine
M1AB5	Marine
M1OW	Marine
M1RB	Marine
M1RB1	Marine
M1RB2	Marine
M1RF	Marine
M1RF1	Marine
M1RF3	Marine
M1UB	Marine
M1UB1	Marine
M1UB2	Marine
M1UB3	Marine
M1UB4	Marine
M2	Marine
M2AB	Marine
M2AB1	Marine
M2AB3	Marine
M2AB5	Marine
M2RF	Marine
M2RF1	Marine
M2RF3	Marine
M2RS	Marine
M2RS1	Marine
M2RS2	Marine
M2US	Marine
M2US1	Marine
M2US2	Marine
M2US3	Marine
M2US4	Marine
P	Palustrine
PAB	Palustrine
PAB1	Palustrine
PAB2	Palustrine
PAB3	Palustrine
PAB4	Palustrine
PAB5	Palustrine
PAB6	Palustrine
PEM	Palustrine
PEM1	Palustrine

PEM2	Palustrine
PFO	Palustrine
PFO1	Palustrine
PFO2	Palustrine
PFO3	Palustrine
PFO4	Palustrine
PFO5	Palustrine
PFO6	Palustrine
PFO7	Palustrine
PML	Palustrine
PML1	Palustrine
PML2	Palustrine
POW	Palustrine
PRB	Palustrine
PRB1	Palustrine
PRB2	Palustrine
PSS	Palustrine
PSS1	Palustrine
PSS2	Palustrine
PSS3	Palustrine
PSS4	Palustrine
PSS5	Palustrine
PSS6	Palustrine
PSS7	Palustrine
PUB	Palustrine
PUB1	Palustrine
PUB2	Palustrine
PUB3	Palustrine
PUB4	Palustrine
RP	Riparian
RP1	Riparian
RP1EM	Riparian
RP1FO	Riparian
RP1FO6	Riparian
RP1FO7	Riparian
RP1FO8	Riparian
RP1SS	Riparian
RP1SS6	Riparian
RP1SS7	Riparian
RP1SS8	Riparian
RP2	Riparian
RP2EM	Riparian
RP2FO	Riparian
RP2FO6	Riparian
RP2FO7	Riparian
RP2FO8	Riparian
RP2SS	Riparian
RP2SS6	Riparian
RP2SS7	Riparian

RP2SS8	Riparian
R	Riverine
R1	Riverine
R1AB	Riverine
R1AB1	Riverine
R1AB2	Riverine
R1AB3	Riverine
R1AB4	Riverine
R1AB5	Riverine
R1AB6	Riverine
R1EM	Riverine
R1EM2	Riverine
R1RB	Riverine
R1RB1	Riverine
R1RB2	Riverine
R1RS	Riverine
R1RS1	Riverine
R1RS2	Riverine
R1SB	Riverine
R1SB1	Riverine
R1SB2	Riverine
R1SB3	Riverine
R1SB4	Riverine
R1SB5	Riverine
R1SB6	Riverine
R1SB7	Riverine
R1UB	Riverine
R1UB1	Riverine
R1UB2	Riverine
R1UB3	Riverine
R1UB4	Riverine
R1US	Riverine
R1US1	Riverine
R1US2	Riverine
R1US3	Riverine
R1US4	Riverine
R1US5	Riverine
R2	Riverine
R2AB	Riverine
R2AB1	Riverine
R2AB2	Riverine
R2AB3	Riverine
R2AB4	Riverine
R2AB5	Riverine
R2AB6	Riverine
R2EM	Riverine
R2EM2	Riverine
R2RB	Riverine
R2RB1	Riverine
R2RB2	Riverine

R2RS	Riverine
R2RS1	Riverine
R2RS2	Riverine
R2UB	Riverine
R2UB1	Riverine
R2UB2	Riverine
R2UB3	Riverine
R2UB4	Riverine
R2US	Riverine
R2US1	Riverine
R2US2	Riverine
R2US3	Riverine
R2US4	Riverine
R2US5	Riverine
R2US6	Riverine
R3	Riverine
R3AB	Riverine
R3AB1	Riverine
R3AB2	Riverine
R3AB3	Riverine
R3AB4	Riverine
R3AB5	Riverine
R3AB6	Riverine
R3RB	Riverine
R3RB1	Riverine
R3RB2	Riverine
R3RS	Riverine
R3RS1	Riverine
R3RS2	Riverine
R3UB	Riverine
R3UB1	Riverine
R3UB2	Riverine
R3UB3	Riverine
R3UB4	Riverine
R3US	Riverine
R3US1	Riverine
R3US2	Riverine
R3US3	Riverine
R3US4	Riverine
R3US5	Riverine
R4	Riverine
R4SB	Riverine
R4SB1	Riverine
R4SB2	Riverine
R4SB3	Riverine
R4SB4	Riverine
R4SB5	Riverine
R4SB6	Riverine
R4SB7	Riverine
R5	Riverine
R5AB	Riverine
R5AB1	Riverine

R5AB2	Riverine
R5AB3	Riverine
R5AB4	Riverine
R5AB5	Riverine
R5AB6	Riverine
R5RB	Riverine
R5RB1	Riverine
R5RB2	Riverine
R5RS	Riverine
R5RS1	Riverine
R5RS2	Riverine
R5UB	Riverine
R5UB1	Riverine
R5UB2	Riverine
R5UB3	Riverine
R5UB4	Riverine
R5US	Riverine
R5US1	Riverine
R5US2	Riverine
R5US3	Riverine
R5US4	Riverine
R5US5	Riverine
R6	Riverine
U	Uplands

Description

Delineation only
TNWs, including territorial seas
Wetlands adjacent to TNWs
Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs
Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
Non-RPWs that flow directly or indirectly into TNWs
Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
Isolated (interstate or intrastate) waters, including isolated wetlands
Uplands
Tributary consisting of both RPWs and non-RPWs

Description

Depressional is characterized by a water source consisting of return flow from groundwater and interflow with primarily vertical hydrodynamics.
The water source of the estuarine fringe consists of overbank flow from estuaries, with bidirectional and horizontal hydrodynamics being dominant.
A Lacustrine fringe has a dominant water source of lake overbank flow, and the dominant hydrodynamics are
Mineral soil flats have a water source of precipitation, and vertical hydrodynamics are dominant.
Organic soil flats have precipitation as the water source, and its dominant hydrodynamic is vertical.
Riverine is characterized by a water source of overbank flow from a channel, and hydrodynamics which are predominantly unidirectional and horizontal.
The Slope wetland class is characterized by a water source of return flow from groundwater, with principally unidirectional and horizontal hydrodynamics.

Description

Estuarine - Consists of deepwater tidal habitats and adjacent tidal wetlands that are usually semienclosed 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
Subtidal, Estuarine
Aquatic Bed, Estuarine
Algal, Aquatic Bed, Subtidal, Estuarine
Rooted Vascular, Aquatic Bed, Subtidal, Estuarine
Floating Vascular, Aquatic Bed, Subtidal, Estuarine
Unknown Submergent, Aquatic Bed, Subtidal, Estuarine
Unknown Surface, Aquatic Bed, Subtidal, Estuarine
Open Water, Subtidal, Estuarine (used on older maps)
Rock Bottom, Subtidal, Estuarine
Bedrock, Rock Bottom, Subtidal, Estuarine
Rubble, Rock Bottom, Subtidal, Estuarine
Reef, Subtidal, Estuarine
Mollusc, Reef, Subtidal, Estuarine
Worm, Reef, Subtidal, Estuarine
Unconsolidated Bottom, Subtidal, Estuarine
Cobble-Gravel, Unconsolidated Bottom, Subtidal, Estuarine
Sand, Unconsolidated Bottom, Subtidal, Estuarine
Mud, Unconsolidated Bottom, Subtidal, Estuarine
Organic, Unconsolidated Bottom, Subtidal, Estuarine
Intertidal, Estuarine

Aquatic Bed, Intertidal, Estuarine
Algal, Aquatic, Bed, Intertidal, Estuarine
Rooted Vascular, Aquatic Bed, Intertidal, Estuarine
Floating Vascular, Aquatic Bed, Intertidal, Estuarine
Unknown Submergent, Aquatic Bed, Intertidal, Estuarine
Unknown Surface, Aquatic Bed, Intertidal, Estuarine
Emergent, Intertidal, Estuarine
Persistent, Emergent, Intertidal, Estuarine
Nonpersistent, Emergent, Intertidal, Estuarine
Forested, Intertidal, Estuarine
Broad-Leaved Deciduous, Forested, Intertidal, Estuarine
Needle-Leaved Deciduous, Forested, Intertidal, Estuarine
Broad-Leaved Evergreen, Forested, Intertidal, Estuarine
Needle-Leaved Evergreen, Forested, Intertidal, Estuarine
Dead, Forested, Intertidal, Estuarine
Indeterminate Deciduous, Forested, Intertidal, Estuarine
Indeterminate Evergreen, Forested, Intertidal, Estuarine
Reef, Intertidal, Estuarine
Mollusc, Reef, Intertidal, Estuarine
Worm, Reef, Intertidal, Estuarine
Rocky Shore, Intertidal, Estuarine
Bedrock, Rocky Shore, Intertidal, Estuarine
Rubble, Rocky Shore, Intertidal, Estuarine
Stream Bed, Intertidal, Estuarine
Cobble-Gravel, Stream Bed, Intertidal, Estuarine
Sand, Stream Bed, Intertidal, Estuarine
Mud, Stream Bed, Intertidal, Estuarine
Organic, Stream Bed, Intertidal, Estuarine
Scrub-Shrub, Intertidal, Estuarine
Broad-Leaved Deciduous, Scrub-Shrub, Intertidal, Estuarine
Needle-Leaved Deciduous, Scrub-Shrub, Intertidal, Estuarine
Broad-Leaved Evergreen, Scrub-Shrub, Intertidal, Estuarine
Needle-Leaved Evergreen, Scrub-Shrub, Intertidal, Estuarine
Dead, Scrub-Shrub, Intertidal, Estuarine
Indeterminate Deciduous, Scrub-Shrub, Intertidal, Estuarine
Indeterminate Evergreen, Scrub-Shrub, Intertidal, Estuarine
Unconsolidated Shore, Intertidal, Estuarine
Cobble, Unconsolidated Shore, Intertidal, Estuarine
Sand, Unconsolidated Shore, Intertidal, Estuarine
Mud, Unconsolidated Shore, Intertidal, Estuarine
Organic, Unconsolidated Shore, Intertidal, Estuarine

Lacustrine - 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 nontidal, but

Lacustrine - 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 nontidal, but
Aquatic Bed, Limnetic, Lacustrine
Algal, Aquatic Bed, Limnetic, Lacustrne
Aquatic Moss, Aquatic Bed, Limnetic, Lacustrine
Rooted Vascular, Aquatic Bed, Limnetic, Lacustrine
Floating Vascular, Aquatic Bed, Limnetic, Lacustrine
Unknown Submergent, Aquatic Bed, Limnetic, Lacustrine
Unknown Surface, Aquatic Bed, Limnetic, Lacustrine
Open Water/Unknown Bottom, Limnetic, Lacustrine (used on older maps)
Rock Bottom, Limnetic, Lacustrine
Bedrock, Rock Bottom, Limnetic, Lacustrine
Rubble, Rock Bottom, Limnetic, Lacustrine
Unconsolidated Bottom, Limnetic, Lacustrine
Cobble-Gravel, Unconsolidated Bottom, Limnetic, Lacustrine
Sand, Unconsolidated Bottom, Limnetic, Lacustrine
Mud, Unconsolidated Bottom, Limnetic, Lacustrine
Organic, Unconsolidated Bottom, Limnetic, Lacustrine
Littoral, Lacustrine
Aquatic Bed, Littoral, Lacustrine
Algal, Aquatic Bed, Littoral, Lacustrine
Aquatic Moss, Aquatic Bed, Littoral, Lacustrine
Rooted Vascular, Aquatic Bed, Littoral, Lacustrine
Floating Vascular, Aquatic Bed, Littoral, Lacustrine
Unknown Submergent, Aquatic Bed, Littoral, Lacustrine
Unknown Surface, Aquatic Bed, Littoral, Lacustrine
Emergent, Littoral, Lacustrine
Nonpersistent, Emergent, Littoral, Lacustrine
Open Water/Unknown Bottom, Littoral, Lacustrine
Rock Bottom, Littoral, Lacustrine
Bedrock, Rock Bottom, Littoral, Lacustrine
Rubble, Rock Bottom, Littoral, Lacustrine
Rocky Shore, Littoral, Lacustrine
Bedrock, Rocky Shore, Littoral, Lacustrine
Rubble, Rocky Shore, Littoral, Lacustrine
Unconsolidated Bottom, Littoral, Lacustrine
Cobble-Gravel, Unconsolidated Bottom, Littoral, Lacustrine
Sand, Unconsolidated Bottom, Littoral, Lacustrine
Mud, Unconsolidated Bottom, Littoral, Lacustrine
Organic, Unconsolidated Bottom, Littoral, Lacustrine
Unconsolidated Shore, Littoral, Lacustrine
Cobble-Gravel, Unconsolidated Shore, Littoral, Lacustrine
Sand, Unconsolidated Shore, Littoral, Lacustrine
Mud, Unconsolidated Shore, Littoral, Lacustrine
Organic, Unconsolidated Shore, Littoral, Lacustrine
Vegetated, Unconsolidated Shore, Littoral, Lacustrine

Marine - 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
Subtidal Marine
Aquatic Bed, Subtidal, Marine
Algal, Aquatic Bed, Subtidal, Marine
Rooted Vascular, Aquatic Bed, Subtidal, Marine
Unknown Submergent, Aquatic Bed, Subtidal, Marine
Open Water, Subtidal, Marine (Used on older maps)
Rock Bottom Subtidal Marine
Bedrock, Rock Bottom, Subtidal, Marine
Rubble, Rock Bottom, Subdtidal, Marine
Nonpersistent, Emergent, Lower Perennial, Riverine
Coral, Reef, Subtidal, Marine
Worm, Reef, Subtidal, Marine
Unconsolidated Bottom, Subtidal, Marine
Cobble-Gravel, Unconsolidated, Subtidal, Marine
Sand, Unconsolidated Bottom, Subtidal, Marine
Mud, Unconsolidated Bottom, Subtidal, Marine
Organic, Unconsolidated Bottom, Subtidal, Marine
Intertidal, Marine
Aquatic Bed, Intertidal, Marine
Algal, Aquatic Bed, Intertidal, Marine
Rooted Vascular, Aquatic Bed, Intertidal, Marine
Unknown Submergent, Aquatic Bed, Intertidal, Marine
Reef, Intertidal, Marine
Coral, Reef, Intertidal, Marine
Worm, Reef, Intertidal, Marine
Rocky Shore, Intertidal, Marine
Bedrock, Rocky Shore, Intertidal, Marine
Rubble, Rocky Shore, Intertidal, Marine
Unconsolidated Shore, Intertidal, Marine
Cobble-Gravel, Unconsolidated Shore, Intertidal, Marine
Sand, Unconsolidated Shore, Intertidal, Marine
Mud, Unconsolidated Shore, Intertidal, Marine
Organic, Unconsolidated Shore, Intertidal, Marine
Palustrine - Includes all nontidal 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%.
Aquatic Bed, Palustrine
Algal, Aquatic Bed, Palustrine
Aquatic Moss, Aquatic Bed, Palustrine
Rooted Vascular, Aquatic Bed, Palustrine
Floating Vascular, Aquatic Bed, Palustrine
Unknown Submergent, Aquatic Bed, Palustrine
Unknown Surface, Aquatic Bed, Palustrine
Emergent, Palustrine
Persistent, Emergent, Palustrine

Nonpersistent, Emergent, Palustrine
Forested, Palustrine
Broad-Leaved Deciduous, Forested, Palustrine
Needle-Leaved Deciduous, Forested, Palustrine
Broad-Leaved Evergreen, Forested, Palustrine
Needle-Leaved Evergreen, Forested, Palustrine
Dead, Forested, Palustrine
Indeterminate Deciduous, Forested, Palustrine
Indeterminate Evergreen, Forested, Palustrine
Moss-Lichens, Palustrine
Moss, Moss-Lichens, Palustrine
Lichen, Moss-Lichen, Palustrine
POW-PALUSTRINE, OPEN WATER
Rock Bottom, Palustrine
Bedrock, Rock Bottom, Palustrine
Rubble, Rock Bottom, Palustrine
Scrub-Shrub, Palustrine
Broad-Leaved Deciduous, Scrub-Shrub, Palustrine
Needle-Leaved Deciduous, Scrub-Shrub, Palustrine
Broad-Leaved Evergreen, Scrub-Shrub, Palustrine
Needle-Leaved Evergreen, Scrub-Shrub, Palustrine
Dead, Scrub-Shrub
Indeterminate Deciduous, Scrub-Shrub, Palustrine
Indeterminate Evergreen, Scrub-Shrub, Palustrine
Unconsolidated Bottom, Palustrine
Cobble-Gravel, Unconsolidated Bottom, Palustrine
Sand, Unconsolidated Bottom, Palustrine
Mud, Unconsolidated Bottom, Palustrine
Organic, Unconsolidated Bottom, Palustrine
Riparian - 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 species than adjacent areas, and 2) species similar to adjacent areas but exhibiting more vigorous or robust growth forms. Riparian areas are
Lotic, Riparian
Emergent, Lotic, Riparian
Forested, Lotic, Riparian
Decidous, Forested, Lotic, Riparian
Evergreen, Forested, Lotic, Riparian
Mixed, Forested, Lotic, Riparian
Scrub-Shrub, Lotic, Riparian
Decidous, Scrub-Shrub, Lotic, Riparian
Evergreen, Scrub-Shrub, Lotic, Riparian
Mixed, Scrub-Shrub, Lotic, Riparian
Lentic, Riparian
Emergent, Lentic, Riparian
Forested, Lentic. Riparian
Decidous, Forested, Lentic, Riparian
Evergreen, Forested, Lentic, Riparian
Mixed, Forested, Lentic, Riparian
Scrub-Shrub, Lentic, Riparian
Decidous, Scrub-Shrub, Lentic, Riparian
Evergreen, Scrub-Shrub, Lentic, Riparian

Mixed, Scrub-Shrub, Lentic, Riparian
Riverine - 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%.
Tidal, Riverine
Aquatic Bed, Tidal, Riverine
Algal, Aquatic Bed, Tidal, Riverine
Aquatic Moss, Aquatic Bed, Tidal, Riverine
Rooted Vascular, Aquatic Bed, Tidal, Riverine
Floating Vascular, Aquatic Bed, Tidal, Riverine
Unknown Submergent, Aquatic Bed, Tidal, Riverine
Unknown Surface, Aquatic Bed, Tidal, Riverine
Emergent, Tidal, Riverine
Nonpersistent, Emergent, Tidal, Riverine
Rock Bottom, Tidal, Riverine
Bedrock, Rock Bottom, Tidal, Riverine
Rubble, Rock Bottom, Tidal, Riverine
Rocky Shore, Tidal, Riverine
Bedrock, Rocky Shore, Tidal, Riverine
Rubble, Rocky Shore, Tidal, Riverine
Streambed, Tidal, Riverine
Bedrock. Streambed, Tidal, Riverine
Rubble, Streambed, Ridal, Riverine
Cobble-Gravel, Streambed, Tidal, Riverine
Sand, Streambed, Tidal, Riverine
Mud, Streambed, Tidal, Riverine
Organic, Streambed, Tidal, Riverine
Vegetated, Streambed, Tidal, Riverine
Unconsolidated Bottom, Tidal, Riverine
Cobble-Gravel, Unconsolidated Bottom, Tidal, Riverine
Sand, Unconsolidated Bottom, Tidal, Riverine
Mud, Unconsolidated Bottom, Tidal, Riverine
Organic, Unconsolidated Bottom, Tidal, Riverine
Unconsolidated Shore, Tidal, Riverine
Cobble-Gravel, Unconsolidated Shore, Tidal, Riverine
Sand, Unconsolidated Shore, Tidal, Riverine
Mud, Unconsolidated Shore, Tidal, Riverine
Organic, Unconsolidated Shore, Tidal, Riverine
Vegetated, Unconsolidated Shore, Tidal, Riverine
Lower Perennial, Riverine
Aquatic Bed, Lower Tidal, Riverine
Algal, Aquatic Bed, Lower Tidal, Riverine
Aquatic Moss, Aquatic Bed, Lower Tidal, Riverine
Rooted Vascular, Aquatic Bed, Lower Tidal, Riverine
Floating Vascular, Aquatic Bed, Lower Tidal, Riverine
Unknown Submergent, Aquatic Bed, Lower Tidal, Riverine
Unknown Surface, Aquatic Bed, Lower Tidal, Riverine
Emergent, Lower Tidal, Riverine
Nonpersistent, Emergent, Lower Tidal, Riverine
Rock Bottom, Lower Perennial, Riverine
Bedrock, Rock Bottom, Lower Perennial, Riverine
Rubble, Rock Bottom, Lower Perennial, Riverine

Rocky Shore, Lower Tidal, Riverine
Bedrock, Rocky Shore, Lower Tidal, Riverine
Rubble, Rocky Shore, Lower Tidal, Riverine
Unconcolidated Bottom, Lower Perennial, Riverine
Cobble-Gravel, Unconsolidated Bottom, Lower Perennial, Riverine
Sand, Unconsolidated Bottom, Lower Perennial, Riverine
Mud, Unconsolidated Bottom, Lower Perennial, Riverine
Organic, Unconsolidated Bottom, Lower Perennial, Riverine
Unconsolidated Shore, Lower Tidal, Riverine
Cobble-Gravel, Unconsolidated Shore, Lower Tidal, Riverine
Sand, Unconsolidated Shore, Lower Tidal, Riverine
Rooted Vascular, Unconsolidaated Shore, Lower Tidal, Riverine
Floating Vascular, Unconsolidated Shore, Lower Tidal, Riverine
Unknown Submergent, Unconsolidated Shore, Lower Tidal, Riverine
Unknown Surface, Unknown Surface, Lower Tidal, Riverine
Upper Perennial, Riverine
Aquatic Bed, Upper Perennial, Riverine
Algal, Aquatic Bed, Upper Perennial, Riverine
Aquatic Moss, Aquatic Bed, Upper Perennial, Riverine
Rooted Vascular, Aquatic Bed, Upper Perennial, Riverine
Floating Vascular, Aquatic Bed, Upper Perennial, Riverine
Unknown Submergent, Aquatic Bed, Upper Perennial, Riverine
Unknown Surface, Aquatic Bed, Upper Perennial, Riverine
Rock Bottom, Upper Perennial, Riverine
Bedrock, Rock Bottom, Upper Perennial, Riverine
Rubble, Rock Bottom, Upper Perennial, Riverine
Rocky Shore, Upper Perennial, Riverine
Bedrock, Rocky Shore, Upper Perennial, Riverine
Rubble, Rocky Shore, Upper Perennial, Riverine
Unconsolidated Bottom, Upper Perennial, Riverine
Cobble-Gravel, Unconsolidated Bottom, Upper Perennial, Riverine
Sand, Unconsolidated Bottom, Upper Perennial, Riverine
Mud, Unconsolidated Bottom, Upper Perennial, Riverine
Organic, Unconsolidated Bottom, Upper Perennial, Riverine
Unconsolidated Shore, Upper Perennial, Riverine
Cobble-Gravel, Unconsolidated Shore, Upper Perennial, Riverine
Sand, Unconsolidated Shore, Upper Perennial, Riverine
Mud, Unconsolidated Shore, Upper Perennial, Riverine
Organic, Unconsolidated Shore, Upper Perennial, Riverine
Vegetated, Unconsolidated Shore, Upper Perennial, Riverine
Intermittent, Riverine
Streambed, Intermittent, Riverine
Bedrock, Streambed, Intermittent, Riverine
Rubble, Streambed, Intermittent, Riverine
Cobble-Gravel, Streambed, Intermittent, Riverine
Sand, Streambed, Intermittent, Riverine
Mud, Streambed, Intermittent, Riverine
Organic, Streambed, Intermittent, Riverine
Vegetated, Streambed, Intermittent, Riverine
Unknown Perennial, Riverine
Aquatic Bed, Unknown Perennial, Riverine
Algal, Aquatic Bed, Unknown Perennial, Riverine

Aquatic Moss, Aquatic Bed, Unknown Perennial, Riverine
Rooted Vascular, Aquatic Bed, Unknown Perennial, Riverine
Floating Vascular, Aquatic Bed, Unknown Perennial, Riverine
Unknown Submergent, Aquatic Bed, Unknown Perennial, Riverine
Unknown Surface, Aquatic Bed, Unknown Perennial, Riverine
Rock Bottom, Unknown Perennial, Riverine
Bedrock, Rock Bottom Unknown Perennial, Riverine
Rubble, Rock Bottom, Unknown Perennial, Riverine
Rocky Shore, Unknown Perennial, Riverine
Bedrock, Rocky Shore, Unknown Perennial, Riverine
Rubble, Rocky Shore, Unknown Perennial, Riverine
Unconsolidated Bottom, Unknown Perennial, Riverine
Cobble-Gravel, Unconsolidated Bottom, Unknown Perennial, Riverine
Sand, Unconsolidated Bottom, Unknown Perennial, Riverine
Mud, Unconsolidated Bottom, Unknown Perennial, Riverine
Organic, Unconsolidated Bottom, Unknow Perennial, Riverine
Unconsolidated Shore, Unknown Perennial, Riverine
Cobble-Gravel, Unconsolidated Shore, Riverine
Sand, Unconsolidated Shore, Unknown Perennial, Riverine
Mud, Unconsolidated Shore, Unknown Perennial, Riverine
Organic, Unconsolidated Shore, Unknown Perennial, Riverine
Vegetated, Unconsolidated Shore, Unknown Perennial, Riverine
A wetland, spring, stream, river, pond or lake that only exists for a short period
Upland - Not a wetland or deepwater habitat of the United States as described by Cowardin.

Name
E-ESTUARINE
E1-ESTUARINE, SUBTIDAL
E1AB-ESTUARINE, SUBTIDAL, AQUATIC BED
E1AB1-ESTUARINE, SUBTIDAL, AQUATIC BED, ALGAL
E1AB3-ESTUARINE, SUBTIDAL, AQUA BED, ROOT VASC
E1AB4-ESTUARINE, SUBTIDAL, AQUA BED, FLOT VASC
E1AB5-ESTUARINE, SUBTIDAL, AQUA BED, UNK SUB
E1AB6-ESTUARINE, SUBTIDAL, AQUA BED, UNK SUR
E1OW-ESTUARINE, SUBTIDAL, OPEN WATER
E1RB-ESTUARINE, SUBTIDAL, ROCK BOTTOM
E1RB1-ESTUARINE, SUBTIDAL, ROCK BOTTOM, BEDROK
E1RB2-ESTUARINE, SUBTIDAL, ROCK BOTTOM, RUBBLE
E1RF-ESTUARINE, SUBTIDAL, REEF
E1RF2-ESTUARINE, SUBTIDAL, REEF, MOLLUSC
E1RF3-ESTUARINE, SUBTIDAL, REEF, WORM
E1UB-ESTUARINE, SUBTIDAL UNCONSOLIDATED BOTTM
E1UB1-ESTUARINE, SUBTIDAL, UNCONSOL BOTOM, COB
E1UB2-ESTUARINE, SUBTIDAL, UNCONSOL BOT, SAND
E1UB3-ESTUARINE, SUBTIDAL, UNCONSOL BOT, MUD
E1UB4-ESTUARINE, SUBTIDAL, UNCONSOL BOT, ORG
E2-ESTUARINE, INTERTIDAL

E2AB-ESTUARINE, INTERTIDAL, AQUATIC BED
E2AB1-ESTUARINE, INTERTIDAL, AQUA BED, ALGAL
E2AB3-ESTUARINE, INTERTIDAL, AQUA BED, ROOT VA
E2AB4-ESTUARINE, INTERTIDAL, AQUABED, FLOAT VA
E2AB5-ESTUARINE, INTERTIDAL, AQUABED, UNK SUB
E2AB6-ESTUARINE, INTERTIDAL, AQUABED, UNK SUR
E2EM-ESTUARINE, INTERTIDAL, EMERGENT
E2EM1-ESTUARINE, INTERTIDAL, EMERGENT, PERSIST
E2EM2-ESTUARINE, INTERTIDAL, EMERGENT, NONPERS
E2FO-ESTUARINE, INTERTIDAL, FORESTED
E2FO1-ESTUARINE, INTERTIDAL, FORESTED, BLD
E2FO2-ESTUARINE, INTERTIDAL, FORESTED, NLD
E2FO3-ESTUARINE, INTERTIDAL, FORESTED, BLE
E2FO4-ESTUARINE, INTERTIDAL, FORESTED, NLE
E2FO5-ESTUARINE, INTERTIDAL, FORESTED, DEAD
E2FO6-ESTUARINE, INTERTIDAL, FORESTED, IND
E2FO7-ESTUARINE, INTERTIDAL, FORESTED, INE
E2RF-ESTUARINE, INTERTIDAL, REEF
E2RF2-ESTUARINE, INTERTIDAL, REEF, MOLLUSC
E2RF3-ESTUARINE, INTERTIDAL, REEF, WORM
E2RS-ESTUARINE, INTERTIDAL, ROCKY SHORE
E2RS1-ESTUARINE, INTERTIDAL, ROCK SHR, BEDROK
E2RS2-ESTUARINE, INTERTIDAL, ROCK SHR, RUBBLE
E2SB-ESTUARINE, INTERTIDAL, STREAM BED
E2SB3-ESTUARINE, INTERTIDAL, STREAM BED, COBBL
E2SB4-ESTUARINE, INTERTIDAL, STREAM BED, SAND
E2SB5-ESTUARINE, INTERTIDAL, STREAM BED, MUD
E2SB6-ESTUARINE, INTERTIDAL, STREAM BED, ORGAN
E2SS-ESTUARINE, INTERTIDAL, SCRUB-SHRUB
E2SS1-ESTUARINE, INTERTIDAL, SCRUB-SHRUB, BLD
E2SS2-ESTUARINE, INTERTIDAL, SCRUB-SHRUB, NLD
E2SS3-ESTUARINE, INTERTIDAL, SCRUB-SHRUB, BLE
E2SS4-ESTUARINE, INTERTIDAL, SCRUB-SHRUB, NLE
E2SS5-ESTUARINE, INTERTIDAL, SCRUB-SHRUB, DEAD
E2SS6-ESTUARINE, INTERTIDAL, SCRUB-SHRUB, IND
E2SS7-ESTUARINE, INTERTIDAL, SCRUB-SHRUB, INE
E2US-ESTUARINE, INTERTIDAL, UNCONSOL SHORE
E2US1-ESTUARINE, INTERTIDAL, UNCONSOL SHR, COB
E2US2-ESTUARINE, INTERTIDAL, UNCONSOL SHR, SAN
E2US3-ESTUARINE, INTERTIDAL, UNCONSOL BOT, MUD
E2US4-ESTUARINE, INTERTIDAL, UNCONSOL SHR, ORG
L-LACUSTRINE

L1-LACUSTRINE, LIMNETIC

L1AB-LACUSTRINE, LIMNETIC, AQUA BED
L1AB1-LACUSTRINE, LIMNETIC, AQUA BED, ALGAL
L1AB2-LACUSTRINE, LIMNETIC, AQUA BED, AQUA MOS
L1AB3-LACUSTRINE, LIMNETIC, AQUA BED, ROOT VAS
L1AB4-LACUSTRINE, LIMNETIC, AQUA BED, FLOT VAS
L1AB5-LACUSTRINE, LIMNETIC, AQUA BED, UNK SUB
L1AB6-LACUSTRINE, LIMNETIC, AQUA BED, UNK SURF
L1OW-LACUSTRINE, LIMNETIC, OPEN WATER/UNK BOT
L1RB-LACUSTRINE, LIMNETIC, ROCK BOTTOM
L1RB1-LACUSTRINE, LIMNETIC, ROCK BOT, BEDROCK
L1RB2-LACUSTRINE, LIMNETIC, ROCK BOT, RUBBLE
L1UB-LACUSTRINE, LIMNETIC, UNCONSOL BOTTOM
L1UB1-LACUSTRINE, LIMNETIC, UNCONSOL BOT, COGGLE
L1UB2-LACUSTRINE, LIMNETIC, UNCONSOL BOT, SAND
L1UB3-LACUSTRINE, LIMNETIC, UNCONSOL BOT, MUD
L1UB4-LACUSTRINE, LIMNETIC, UNCONSOL BOT, ORGANI
L2-LACUSTRINE, LITTORAL
L2AB-LACUSTRINE, LITTORAL, AQUA BED
L2AB1-LACUSTRINE, LITTORAL, AQUA BED, ALGAL
L2AB2-LACUSTRINE, LITTORAL, AQUA BED, AQUA MOS
L2AB3-LACUSTRINE, LITTORAL, AQUA BED, ROOT VAS
L2AB4-LACUSTRINE, LITTORAL, AQUA BED, FLOT VAS
L2AB5-LACUSTRINE, LITTORAL, AQUA BED, UNK SUB
L2AB6-LACUSTRINE, LITTORAL, AQUA BED, UNK SURF
L2EM-LACUSTRINE, LITTORAL, EMERGENT
L2EM2-LACUSTRINE, LITTORAL, EMERGENT, NONPERS
L2OW-LACUSTRINE, LITTORAL, OPEN WATER
L2RB-LACUSTRINE, LITTORAL, ROCK BOTTOM
L2RB1-LACUSTRINE, LITTORAL, ROCK BOT, BEDROCK
L2RB2-LACUSTRINE, LITTORAL, ROCK BOT, RUBBLE
L2RS-LACUSTRINE, LITTORAL, ROCKY SHORE
L2RS1-LACUSTRINE, LITTORAL, ROCKY SHR, BEDROCK
L2RS2-LACUSTRINE, LITTORAL, ROCKY SHR, RUBBLE
L2UB-LACUSTRINE, LITTORAL, UNCONSOL BOT
L2UB1-LACUSTRINE, LITTORAL, UNCONSOL BOT, COBBLE
L2UB2-LACUSTRINE, LITTORAL, UNCONSOL BOT, SAND
L2UB3-LACUSTRINE, LITTORAL, UNCONSOL BOT, MUD
L2UB4-LACUSTRINE, LITTORAL, UNCONSOL BOT, ORGAN
L2US-LACUSTRINE, LITTORAL, UNCONSOL SHORE
L2US1-LACUSTRINE, LITTORAL, UNCONSOL SHR, COBBLE
L2US2-LACUSTRINE, LITTORAL, UNCONSOL SHR, SAND
L2US3-LACUSTRINE, LITTORAL, UNCONSOL SHR, MUD
L2US4-LACUSTRINE, LITTORAL, UNCONSOL SHR, ORGAN
L2US5-LACUSTRINE, LITTORAL, UNCONSOL SHR, VEGET

M-MARINE

M1-MARINE, SUBTIDAL
M1AB-MARINE, SUBTIDAL, AQUATIC BED
M1AB1-MARINE, SUBTIDAL, AQUATIC BED, ALGAL
M1AB3-MARINE, SUBTIDAL, AQUATIC BED, ROOT VASC
M1AB5-MARINE, SUBTIDAL, AQUATIC BED, UNK SUB
M1OW-MARINE, SUBTIDAL, OPEN WATER
M1RB-MARINE, SUBTIDAL, ROCK BOTTOM
M1RB1-MARINE, SUBTIDAL, ROCK BOTTOM, BEDROCK
M1RB2-MARINE, SUBTIDAL, ROCK BOTTOM, RUBBLE
M1RF-MARINE, SUBTIDAL, REEF
M1RF1-MARINE, SUBTIDAL, REEF, CORAL
M1RF3-MARINE, SUBTIDAL, REEF, WORM
M1UB-MARINE, SUBTIDAL, UNCONSOLIDATED BOTTOM
M1UB1-MARINE, SUBTIDAL, UNCONSOL BOTTOM, COBBL
M1UB2-MARINE, SUBTIDAL, UNCONSOL BOTTOM, SAND
M1UB3-MARINE, SUBTIDAL, UNCONSOL BOTTOM, MUD
M1UB4-MARINE, SUBTIDAL, UNCONSOL BOTTOM, ORGAN
M2-MARINE, INTERTIDAL
M2AB-MARINE, INTERTIDAL, AQUATIC BED
M2AB1-MARINE, INTERTIDAL, AQUATIC BED, ALGAL
M2AB3-MARINE, INTERTIDAL, AQUAT BED, ROOT VASC
M2AB5-MARINE, INTERTIDAL, AQUATIC BED, UNK SUB
M2RF-MARINE, INTERTIDAL, REEF
M2RF1-MARINE, INTERTIDAL, REEF, CORAL
M2RF3-MARINE, INTERTIDAL, REEF, WORM
M2RS-MARINE, INTERTIDAL, ROCKY SHORE
M2RS1-MARINE, INTERTIDAL, ROCKY SHORE, BEDROCK
M2RS2-MARINE, INTERTIDAL, ROCKY SHORE, RUBBLE
M2US-MARINE, INTERTIDAL, UNCONSOLIDATED SHORE
M2US1-MARINE, INTERTIDAL, UNCONSOL SHORE, COBB
M2US2-MARINE, INTERTIDAL, UNCONSOL SHORE, SAND
M2US3-MARINE, INTERTIDAL, UNCONSOL SHORE, MUD
M2US4-MARINE, INTERTIDAL, UNCONSOL SHORE, ORG
P-PALUSTRINE

PAB-PALUSTRINE, AQUA BED
PAB1-PALUSTRINE, AQUA BED, ALGAL
PAB2-PALUSTRINE, AQUA BED, AQUATIC MOSS
PAB3-PALUSTRINE, AQUA BED, ROOTED VASC
PAB4-PALUSTRINE, AQUA BED, FLOAT VASC
PAB5-PALUSTRINE, AQUA BED, UNK SUB
PAB6-PALUSTRINE, AQUA BED, UNK SURF
PEM-PALUSTRINE, EMERGENT
PEM1-PALUSTRINE, EMERGENT, PERSISTENT

PEM2-PALUSTRINE, EMERGENT, NONPERSISTENT
PFO-PALUSTRINE, FORESTED
PFO1-PALUSTRINE, FORESTED, BLD
PFO2-PALUSTRINE, FORESTED, NLE
PFO3-PALUSTRINE, FORESTED, BLE
PFO4-PALUSTRINE, FORESTED, NLE
PFO5-PALUSTRINE, FORESTED, DEAD
PFO6-PALUSTRINE, FORESTED, INDET DEC
PFO7-PALUSTRINE, FORESTED, INDETER EVER
PML-PALUSTRINE, MOSS-LICHENS
PML1-PALUSTRINE, MOSS-LICHENS, MOSS
PML2-PALUSTRINE, MOSS-LICHEN, LICHEN
POW-PALUSTRINE, OPEN WATER
PRB-PALUSTRINE, ROCK BOTTOM
PRB1-PALUSTRINE, ROCK BOTTOM, BEDROCK
PRB2-PALUSTRINE, ROCK BOTTOM, RUBBLE
PSS-PALUSTRINE, SCRUB-SHRUB
PSS1-PALUSTRINE, SCRUB-SHRUM, BLD
PSS2-PALUSTRINE, SCRUB-SHRUB, NLD
PSS3-PALUSTRINE, SCRUB-SHRUB, BLE
PSS4-PALUSTRINE, SCRUB-SHRUB, NLE
PSS5-PALUSTRINE, SCRUB-SHRUB, DEAD
PSS6-PALUSTRINE, SCRUB-SHRUB, INDET DEC
PSS7-PALUSTRINE, SCRUB-SHRUB, INDET EVER
PUB-PALUSTRINE, UNCONSOL BOT
PUB1-PALUSTRINE, UNCONSOL BOT, COBBLE
PUB2-PALUSTRINE, UNCONSOL BOT, SAND
PUB3-PALUSTRINE, UNCONSOL BOT, MUD
PUB4-PALUSTRINE, UNCONSOL BOT, ORGANIC
RP-RIPARIAN

RP1-RIPARIAN, LOTIC
RP1EM-RIPARIAN, LOTIC, EMERGENT
RP1FO-RIPARIAN, LOTIC, FORESTED
RP1FO6-RIPARIAN, LOTIC, FORESTED, DECIDOUS
RP1FO7-RIPARIAN, LOTIC, FORESTED, EVERGREEN
RP1FO8-RIPARIAN, LOTIC, FORESTED, MIXED
RP1SS-RIPARIAN, LOTIC, SCRUB-SHRUB
RP1SS6-RIPARIAN, LOTIC, SCRUB-SHRUB, DECIDOUS
RP1SS7-RIPARIAN, LOTIC, SCRUB-SHRUB, EVERGREEN
RP1SS8-RIPARIAN, LOTIC, SCRUB-SHRUB, MIXED
RP2-RIPARIAN, LENTIC
RP2EM-RIPARIAN, LENTIC, EMERGENT
RP2FO-RIPARIAN, LENTIC, FORESTED
RP2FO6-RIPARIAN, LENTIC. FORESTED, DECIDOUS
RP2FO7-RIPARIAN, LENTIC, FORESTED, EVERGREEN
RP2FO8-RIPARIAN, LENTIC, FORESTED, MIXED
RP2SS-RIPARIAN, LENTIC, SCRUB-SHRUB
RP2SS6-RIPARIAN, LENTIC, SCRUB-SHRUB, DECIDOUS
RP2SS7-RIPARIAN, LENTIC, SCRUB-SHRUB, EVERGREEN

RP2SS8-RIPARIAN, LENTIC, SCRUB-SHRUB, MIXED
R-RIVERINE

R1-RIVERINE, TIDAL
R1AB-RIVERINE, TIDAL, AQUATIC BED
R1AB1-RIVERINE,TIDAL, AQUATIC BED, ALGAL
R1AB2-RIVERINE, TIDAL, AQUA BED, MOSS
R1AB3-RIVERINE, TIDAL, AQUA BED, ROOTED VASC
R1AB4-RIVERINE, TIDAL, AQUA BED, FLOATING VASC
R1AB5-RIVERINE, TIDAL, AQUA BED, UNK SUBMERGEN
R1AB6-RIVERINE, TIDAL, AQUA BED, UNK SURFACE
R1EM-RIVERINE, TIDAL, EMERGENT
R1EM2-RIVERINE, TIDAL, EMERGENT, NONPERSISTENT
R1RB-RIVERINE, TIDAL, ROCK BOTTOM
R1RB1-RIVERINE, TIDAL, ROCK BOTTOM, BEDROCK
R1RB2-RIVERINE, TIDAL, ROCK BOTTOM, RUBBLE
R1RS-RIVERINE, TIDAL, ROCKY SHORE
R1RS1-RIVERINE, TIDAL, ROCKY SHORE, BEDROCK
R1RS2-RIVERINE, TIDAL, ROCKY SHORE, RUBBLE
R1SB-RIVERINE, TIDAL, STREAMBED
R1SB1-RIVERINE, TIDAL, STREAMBED, BEDROCK
R1SB2-RIVERINE, TIDAL, STREAMBED, RUBBLE
R1SB3-RIVERINE, TIDAL, STREAMBED, COBBLE
R1SB4-RIVERINE, TIDAL, STREAMBED, SAND
R1SB5-RIVERINE, TIDAL, STREAMBED, MUD
R1SB6-RIVERINE, TIDAL, STREAMBED, ORGANIC
R1SB7-RIVERINE, TIDAL, STREAMBED, VEGETATED
R1UB-RIVERINE, TIDAL, UNCONSOLIDATED BOTTOM
R1UB1-RIVERINE, TIDAL, UNCONSOL BOTTOM, COBBLE
R1UB2-RIVERINE, TIDAL, UNCONSOL BOTTOM, SAND
R1UB3-RIVERINE, TIDAL, UNCONSOL BOTTOM, MUD
R1UB4-RIVERINE, TIDAL, UNCONSOL BOTTOM, ORGAN
R1US-RIVERINE, TIDAL, UNCONSOL SHORE
R1US1-RIVERINE, TIDAL, UNCONSOL SHORE, COBBLE
R1US2-RIVERINE, TIDAL, UNCONSOL SHORE, SAND
R1US3-RIVERINE, TIDAL, UNCONSOL SHORE, MUD
R1US4-RIVERINE, TIDAL, UNCONSOL SHORE, ORGANIC
R1US5-RIVERINE, TIDAL, UNCONSOL SHORE, VEGETAT
R2-RIVERINE, LOWER PERENNIAL
R2AB-RIVERINE, LOWER PEREN, AQUA BED
R2AB1-RIVERINE, LOWER PEREN, AQUA BED, ALGAL
R2AB2-RIVERINE, LOWER PEREN, AQUA BED, AQ MOSS
R2AB3-RIVERINE, LOWER PEREN, AQUA BED, ROOT VASC
R2AB4-RIVERINE, LOWER PEREN, AQUA BED, FLOAT VAS
R2AB5-RIVERINE, LOWER PEREN, AQUA BED, UNK SUB
R2AB6-RIVERINE, LOWER PEREN, AQUA BED, UNK SURF
R2EM-RIVERINE, LOWER PEREN, EMERGENT
R2EM2-RIVERINE, LOWER PEREN, EMERGENT, NONPERS
R2RB-RIVERINE, LOWER PEREN, ROCK BOTTOM
R2RB1-RIVERINE, LOWER PEREN, ROCK BOT, BEDROCK
R2RB2-RIVERINE, LOWER PEREN, TOCK BOT, RUBBLE

R2RS-RIVERINE, LOWER PEREN, ROCKY SHORE
R2RS1-RIVERINE, LOWER PEREN, ROCKY SHORE, BEDRK
R2RS2-RIVERINE, LOWER PEREN, ROCKY SHORE, RUBBL
R2UB-RIVERINE, LOWER PEREN, UNCONSOL BOT
R2UB1-RIVERINE, LOWER PEREN, UNCONSOL BOT, COB
R2UB2-RIVERINE, LOWER PEREN, UNCONSOL BOT, SAN
R2UB3-RIVERINE, LOWER PEREN, UNCONSOL BOT, MUD
R2UB4-RIVERINE, LOWER PEREN, UNCONSOL BOT, ORG
R2US-RIVERINE, LOWER PEREN, UNCONSOL SHORE
R2US1-RIVERINE, LOWER PEREN, UNCONSOL SHR, COB
R2US2-RIVERINE, LOWER PEREN, UNCONSOL SHR, SAN
R2US3-RIVERINE, LOWER PEREN, UNCONSOL SHR, RV
R2US4-RIVERINE, LOWER PEREN, UNCONSOL SHR, FV
R2US5-RIVERINE, LOWER PEREN, UNCONSOL SHR, UN SUB
R2US6-RIVERINE, LOWER PEREN, UNCONSOL SHR, UNK SUR
R3-RIVERINE, UPPER PERENNIAL
R3AB-RIVERINE, UPPER PEREN, AQUA BED
R3AB1-RIVERINE, UPPER PEREN, AQUA BED, ALGAL
R3AB2-RIVERINE, UPPER PEREN, AQUA BED, AQUA MOSS
R3AB3-RIVERINE, UPPER PEREN, AQUA BED, ROOT VAS
R3AB4-RIVERINE, UPPER PEREN, AQUA BED, FLOAT VAS
R3AB5-RIVERINE, UPPER PEREN, AQUA BED, UNK SUB
R3AB6-RIVERINE, UPPER PEREN, AQUA BED, UNK SURF
R3RB-RIVERINE, UPPER PEREN, ROCK BOTTOM
R3RB1-RIVERINE, UPPER PEREN, ROCK BOT, BEDROCK
R3RB2-RIVERINE, UPPER PEREN, ROCK BOT, RUBBLE
R3RS-RIVERINE, UPPER PEREN, ROCKY SHORE
R3RS1-RIVERINE, UPPER PEREN, ROCKY SHR, BEDROCK
R3RS2-RIVERINE, UPPER PEREN, ROCKY SHR, RUBBLE
R3UB-RIVERINE, UPPER PEREN, UNCONSOL BOT
R3UB1-RIVERINE, UPPER PEREN, UNCONSOL BOT, COBBLE
R3UB2-RIVERINE, UPPER PEREN, UNCONSOL BOT, SAND
R3UB3-RIVERINE, UPPER PEREN, UNCONSOL BOT, MUD
R3UB4-RIVERINE, UPPER PEREN, UNCONSOL BOT, ORGAN
R3US-RIVERINE, UPPER PEREN, UNCONSOL SHR
R3US1-RIVERINE, UPPER PEREN, UNCONSOL SHR, COBBLE
R3US2-RIVERINE, UPPER PEREN, UNCONSOL SHR, SAND
R3US3-RIVERINE, UPPER PEREN, UNCONSOL SHR, MUD
R3US4-RIVERINE, UPPER PEREN, UNCONSOL SHR, ORGANIC
R3US5-RIVERINE, UPPER PEREN, UNCONSOL SHR, VEGETATED
R4-RIVERINE, INTERMIT
R4SB-RIVERINE, INTERMIT, STREAMBED
R4SB1-RIVERINE, INTERMIT, STREAMBED, BEDROCK
R4SB2-RIVERINE, INTERMIT, STREAMBED, RUBBLE
R4SB3-RIVERINE, INTERMIT, STREAMBED, COBBLE
R4SB4-RIVERINE, INTERMIT, STREAMBED, SAND
R4SB5-RIVERINE, INTERMIT, STREAMBED, MUD
R4SB6-RIVERINE, INTERMIT, STREAMBED, ORGANIC
R4SB7-RIVERINE, INTERMIT, STREAMBED, VEGETATED
R5-RIVERINE, UNKNOWN PERENNIAL
R5AB-RIVERINE, UNK PEREN, AQUA BED
R5AB1-RIVERINE, UNK PEREN, AQUA BED, ALGAL

R5AB2-RIVERINE, UNK PEREN, AQUA BED, AQUA MOSS
R5AB3-RIVERINE, UNK PEREN, AQUA BED, ROOT VASC
R5AB4-RIVERINE, UNK PEREN, AQUA BED, FLOAT VASC
R5AB5-RIVERINE, UNK PEREN, AQUA BED, UNK SUB
R5AB6-RIVERINE, UNK PEREN, AQUA BED, UNK SURF
R5RB-RIVERINE, UNK PEREN, ROCK BOTTOM
R5RB1-RIVERINE, UNK PEREN, ROCK BOTTOM, BEDROCK
R5RB2-RIVERINE, UNK PEREN, ROCK BOTTOM, RUBBLE
R5RS-RIVERINE, UNK PEREN, ROCKY SHORE
R5RS1-RIVERINE, UNK PEREN, ROCKY SHORE, BEDROCK
R5RS2-RIVERINE, UNK PEREN, ROCKY SHORE, RUBBLE
R5UB-RIVERINE, UNK PEREN, UNCONSOLIDATED BOTTOM
R5UB1-RIVERINE, UNK PEREN, UNCONSOL BOT, COBBLE
R5UB2-RIVERINE, UNK PEREN, UNCONSOT BOT, SAND
R5UB3-RIVERINE, UNK PEREN, UNCONSOL BOT, MUD
R5UB4-RIVERINE, UNK PEREN, UNCONSOL BOT, ORGANIC
R5US-RIVERINE, UNK PEREN, UNCONCOL SHORE
R5US1-RIVERINE, UNK PEREN, UNCONSOL SHR, COBBLE
R5US2-RIVERINE, UNK PEREN, UNCONSOL SHR, SAND
R5US3-RIVERINE, UNK PEREN, UNCONSOL SHR, MUD
R5US4-RIVERINE, UNK PEREN, UNCONSOL SHR, ORGANIC
R5US5-RIVERINE, UNK PEREN, UNCONSOL SHR, VEGETATED
R6 - RIVERINE, EPHEMERAL
U-UPLANDS