

# APPENDIX B

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## *CATEGORIES BASED ON SPECIAL CHARACTERISTICS*

Questions SC 1 to SC 5 provide the information needed to identify and rate the wetlands with these special characteristics. These types of wetlands have an importance or value that may supersede their functions. **You should determine whether the wetland being rated meets any of the conditions described below as well as answering the questions about functions. If a wetland is categorized as a Category I or II wetland BUT is functioning as a Category III or Category IV, that wetland may be considered for enhancement or restoration.**

### **SC 1.0 Estuarine wetlands**

SC 1.1 Estuarine wetlands are vegetated (salt marsh), saltwater tidal fringe, wetlands where the concentration of salt in the water is normally greater than 5 ppt. Estuarine wetlands of any size within a Federal, State, or Local protection area are rated as Category I if they are not disturbed.

SC 1.2 Any estuarine wetland that does not meet the criteria above for a Category I becomes a Category II wetland. These are usually less than 1 acre in size.

### **SC 2.0 Flat wetlands (bog)**

The FLAT, ORGANIC HGM subclass may be considered Category I wetlands. These are peat-forming ecosystems influenced solely by water which falls directly on it as rain or snow. Bogs have low pH (3.0 – 4.2) (acidic), nutrient poor and have thick fibrous brown peat composed mainly or entirely of partially disintegrated Sphagnum, with a water table at or near the surface. Soils are histosols or have a histic epipedon. There is little standing water except in ponds. Bog vegetation may be dominated by herbs, shrubs, or sparse trees but Sphagnum moss is usually present. Bog succession can vary through several stages (refer to Talbot, S.S. & Gabriel, H.W. Glossary of Landscape & Vegetation Ecology for Alaska. 1984; Moore, P.D. & Bellamy, D.J. Peatlands). These types are generally regarded as “regionally and locally” unique. Black spruce woodland bogs are not usually included as a SC 2.0.

### **SC 3.0 Slope or discharge wetlands (fens)**

Fens are considered Category I wetlands. In contrast to bogs, fens are a peat-forming ecosystem that receive most of their water from ground water. Fens have high pH, alkaline and nutrient rich. Fens generally support more varied vegetation composed of grasses, sedges (compared to bogs) but are generally absent of sphagnum mosses.

#### **SC 4.0 Unique and Natural Heritage wetlands**

All wetlands that fall within the following designations are considered Category I wetlands:

- Federal, State, or Local protection area including all Acts (TES, Wild & Scenic Rivers Act, special aquatic sites under CWA, American Indian Religious Freedom Act, SHPO designation, etc.);
- CERCLA/RCRA Hazardous waste sites;
- Federal, State or Local listed TES or candidate species;
- Non-compatible use with any restrictive covenant or deed restriction or wetlands that are considered “mitigated” wetlands;
- That area adjacent (within a ¼ mile) or hydrologically connected to /with surface waters that contain aquatic species of Federal/State/Local concern or water bodies identified on the Alaska “Catalog of Waters Important for Spawning, Rearing or Migration of Anadromous Fishes”;
- That would impact existing or proposed public water supply and/or reservoirs.

#### **SC 5.0 Interdunal wetlands**

Interdunes are those dunes that occur between the “main dune” systems. They are relatively flat, that can be free or sand or covered by sand. Interdunal wetlands are considered Category II wetlands. Interdunal wetlands provide critical habitat for shorebirds, marine mammals, and other wildlife species because of their unique “wetland and upland” boundaries. Because of this they also provide cultural and subsistence significance. This ecosystem is very dynamic with functions and services that are impossible to restore or mitigate.

Appendix B is also available on the Ecological Sciences Share Point Site:

[Appendix%20B Categories%20Based%20on%20Special%20Characteristics](#)

**SPECIAL CHARACTERISTICS**

- Wetlands that fall into Category I do not qualify for Minimal Effect Exemption or Mitigation Options.
- Wetlands that fall into Category II do not qualify for Minimal Effect Exemption but may qualify for Mitigation. Consultation with Ecological Sciences Staff would be required.
- Wetlands that fall into Category III and IV do qualify for Minimal Effect Exemption.

Determine if the wetland unit meets the attributes below and circle the appropriate answers and Category.

<p><b>Wetland Type:</b> <i>check off any criteria that apply to the wetland unit. Circle the Category when the appropriate criteria are met.</i></p>	<p align="center">CATEGORY</p>
<p><b>SC 1.0 Estuarine wetlands:</b> Does the wetland unit meet the following criteria for Estuarine wetlands?</p> <p> <input type="checkbox"/> The dominant water regime is tidal; and  <input type="checkbox"/> Vegetated; and  <input type="checkbox"/> Salinity of water is greater than 0.5 ppt.                  YES = Go to SC 1.1                      NO = Not Estuarine             </p>	
<p><b>SC 1.1</b> Does the wetland unit meet at least 2 of the 3 criteria below?</p> <p>                 YES = Category I                      NO = Category II  <input type="checkbox"/> Wetland unit is undisturbed ( no diking, ditching, filling, cultivation, grazing and has less than 10% cover of non-native plant species)  <input type="checkbox"/> At least 75% of the wetland unit landward edge has a 100 ft buffer of forest, shrub, or un-grazed herbaceous cover  <input type="checkbox"/> The wetland unit has at least 2 of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.             </p>	<p align="center">Cat I</p> <p align="center">Cat II</p>
<p><b>SC 2.0 Bogs</b> Does the wetland unit (or any part of the unit) meet both the criteria for soils and vegetation? (for this purpose) If you answer yes, you will still need to rate the wetland based on its functions. Bogs occur in the HGM class Flats, Organic.</p> <ol style="list-style-type: none"> <li>1. Does the unit have organic layerss, either peats or mucks, that compose 16 inches or more of the first 32 inches of the soil profile and/or the ground is frozen?                  YES = go to 3                      NO = go to 2</li> <li>2. Does the unit have organic soils, either peats or mucks, that are less than 16 inches deep or <math>\geq</math> 16 inches deep but are over bedrock and are not saturated (refer to definition for Folist)? YES = Is not a bog</li> <li>3. Does the unit have saturated, organic soils and has more than 70% cover of mosses AND hydrologic regime is considered "closed" and water input is from precipitation?                  YES = Category I                      NO = go to SC 3.0 Fens</li> </ol>	<p align="center">Cat I</p>

Continued Special Characteristics	
<p><b>SC 3.0 Fens:</b> Does the wetland unit (or any part of the unit) meet the criteria for soils and vegetation? (for this purpose). If you answer yes, you will still need to rate the wetland based on its functions. Fens can occur in the HGM class Slopes (i.e., refer to key). It is important to distinguish the difference between a fen, bog, and depression.</p> <ol style="list-style-type: none"> <li>1. <i>Does the unit have organic, either peats or mucks, that compose 16 inches or more of the first 32 inches of the soil profile and/or the ground is frozen?</i>  YES = go to 3                      NO = go to 2</li> <li>2. <i>Does the unit have organic soils, either peats or mucks, that are either less than 16 inches deep or <math>\geq</math> 16 inches deep over bedrock? And are not saturated (refer to definition for Folist) YES = Is not a fen</i></li> <li>3. <i>Does the unit have saturated organic soils AND hydrologic regime is considered "open" and water input is from groundwater?</i>  YES = Category I              NO = Not a Fen</li> </ol>	<b>Cat I</b>
<p><b>SC 4.0 Unique &amp; natural heritage wetlands:</b> Wetlands that are undisturbed, support Federal and State listed threatened or endangered plants; are within state or federal listed historical/archeological sites; are adjacent and hydrologically connected to surface waters that contain aquatic species of local and state concerns; are within a local or state protection area; are protected under American Indian religious Freedom Act or any other special site or falls under federal protection/law are considered unique and natural heritage wetlands.</p> <p><b>SC 4.1</b> Is the wetland unit within a unique and/or natural heritage wetland?  YES = Category I List the reason  NO = Not a Unique and/or Heritage wetland (be sure this corresponds to CPA 52)</p>	<b>Cat I</b>
<p><b>SC 5.0 Interdunal wetlands:</b> Does the wetland unit meet the following criteria for Interdunal wetlands?</p> <p>___ The wetland unit is greater than or equal to 1 acre  ___ The wetland occurs in deflation flat or swales within the coastal dune ecosystem directly behind the "ocean beach"</p> <p>YES = Category II              NO = Not Interdunal wetland</p>	<b>Cat II</b>

Note: Any Category I or Category II wetland with Special Characteristics that functions as a Category III or IV can be considered for restoration and enhancement

## Alaska Exempt Wetland Label - AEW

The Alaska Exempt wetland designations are for FSA purposes only and will be assigned to undeveloped sites only (natural vegetation) based on criteria below and the guidance in the following paragraph (see FOTG for a list of map units, components and soil series found in the Interior that meet the AEW criteria). Agricultural parcels recently developed on what may have been “AEW” sites, will be designated as upland if the site is effectively thawed and drained (Alaska Wetland Mapping Conventions, August 1994, SCS).

Soils with high agricultural potential that are saturated due to permafrost and that have the potential to thaw and drain, and can be expected to be dry enough for normal tillage within five years<sup>1</sup> following clearing once the insulating vegetation is removed, are to be mapped as Alaska Exempt Wetlands (AEW) (See “Record of Decision for the Implementation of PL 99-349”, January 1990).

Because this category defines an area’s natural potential to drain without further manipulation, it must be mapped somewhat subjectively based upon several interdependent factors. Drainable permafrost soils should be differentiated from non-drainable permafrost soils (W) by considering the interplay of factors such as:

- Landscape position
- Availability and distance to a drainage outlet
- Soil materials, and
- Manipulation

Agricultural development practices such as those below are to be assumed:

- Complete removal of the organic mat;
- Proper berm placement and orientation
- Adequately sized clearing, and
- Yearly cropping

Landscapes with the following characteristics are factors promoting drainage:

- convex topography
- slopes of 2 percent or more
- coarse textured soils underlain by subsurface gravel, and
- a nearby outlet for surface drainage

Landscapes with the following characteristics are factors that limit drainage:

- Depressional
- Concave
- Toeslope and drainage-way positions in nearly level landscapes
- Heavy textured soils
- Thick organic mats
- High ice contents, and
- A lack of drainage outlets

Because many sites will have some favorable and unfavorable characteristics, the decision affecting whether an area would drain, can be based upon how an adjacent or similar site reacted to clearing.

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<sup>1</sup> In some cases, this may take as long as 7 years.