UNITED STATE DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

September 1992
_____ FIELD OFFICE

COLORADO NRCS WETLAND EVALUATION PROCEDURES WORKSHEET

COOPERATOR _____ DATE _____

FIELD NUMBER _____ TRACT NUMBER _____ CONTRACT NUMBER _____

EVALUATOR _____TITLE _____

WETLAND INFORMATION	EXISTING	PLANNED
Size (Acres)	_____	_____
Type (Circ. 39, Cowardin, FSA)	_____	_____
Hydric Soil or Inclusion (Yes/No)	_____	_____
Artificial Wetland (Yes/No)	_____	_____

List predominant plant species by stratum

Tree

Shrub

Herbaceous

Other (list type)

Attach map showing plan communities

REASON FOR EVALUATION _____

SUMMARY OF MITIGATION NEEDS – FROM THE WETLAND EVALUATION WORKSHEET

Wetland value calculation

1) Condition rating of existing wetland _____ value points.

2) Condition rating of planned wetland _____value points.

3) Existing wetland acres _____ X existing wetland condition rating (_____) = _____ planned wetland value points.

4) Planned wetland acres _____ X planned wetland condition rating (_____) = _____ planned wetland value points.

5) _____ value points required to restore or mitigate impacts, if needed.

A comparison of the existing wetland condition and planned condition of the wetland will be made to assess existing and planned wetland functional values of each individual wetland site. This comparison will be used with the attached Wetland Evaluation Worksheet (pg. 2) to determine amount of planned wetland habitat necessary to restore or mitigate the loss of existing wetland that will be impacted, or to determine the relative value of the wetland manipulated or constructed for other purposes.

The following value ratings for the various wetland functions are based on biological and hydrological characteristics of the existing and planned (modified) wetlands. The numerical values given to each wetland site evaluated will range from 1.0 (high to 0.0 (Zero)

Evaluate the Existing Wetland Value and estimate the value for the Planned (modified) Wetland using the range of numerical values shown. Significance of each value rating to the wetland are defined for each function. The term ”area” refers to the specific site being evaluated.

WETLAND EVALUATION WORKSHEET

COOPERATOR: _____ DATE:_____

SITE LOCATION: _____

SIZE (ACRES): _____

WETLAND FUNCTIONS ADDRESSED	EXISTING CONDITION VALUE RATING	PLANNED CONDITION VALUE RATING
1. Ground Water Recharge/Discharge		
2. Flood Storage		
3. Water Quality		
4. Wetland Wildlife Habitat Item #9 = (a+b+c+d+e+f+g+h+I+j) / 10		
a) Water Regime		
b) In-Kind		
c) Size		
d) Wetland Vegetative Diversity		
e) Adjacent Vegetation Types		
f) Percent of Open Water		
g) Interspersion of Water to Veg.		
h) Water Quality		
i) Management		
j) Disturbance		
Total Items 1 through 4		
Divide Total by 4 = Condition Value Rating		

WETLAND FUNCTIONS ADDRESSED

1. **GROUND WATER FUNCTIONS –** Wetlands may serve as ground water discharge or recharge areas. Ground water recharge is the movement of water from the wetland to the ground water system, resulting in an increase or improvement of ground water quantity and/or quality. This function is affected by soil permeability, landscape position, bedrock permeability, and similar factors. Wetlands are more often ground water discharge areas. Ground water may discharge into depressional areas from a high water table or from a spring or seep. Select and evaluate either recharge or discharge (not both) for evaluation of this function.

   RECHARGE

   1.0 Wetland serves as recharge area for downstream wetlands, streams, or aquifers; water seeps away readily; substrate consists of gravelly or sandy materials or fractured bedrock present; located on steambed or first terrace.

   0.6 Some recharge to downstream wetlands, streams, or aquifers expected; water seeps to impermeable layer where later movement occurs; substrate consists of silty materials.

   0.2 No subsurface features present causing lateral water movement to an outlet; substrate consists of clayey materials.

   0.0 No ground water recharge; Examples include pond lined with impervious material or an areas where no aquifer exists.

   DISCHARGE

   1.0 Discharge from ground water into wetland occurs.

   0.0 No discharge from ground water to surface water occurs.

2. **FLOOD STORAGE –** Flood storage occurs when flood or storm waters are stored and/or released gradually in a manner that results in lower, more persistent downstream flows.

   1.0 Flood storage expansion area greater than 25 percent of normal wetland area; moderate soil infiltration rate in the expansion area; no permanent outlet or constructed outlet; dense, erect vegetation

   0.6 Moderate storage expansion area (between 10 and 25 percent of normal wetland area); constructed outlet; dense, erect vegetation; rapid or slow soil infiltration rate in the expansion area.

   0.2 Small expansion area (less than 10 percent of normal wetland area; well defined outlet; permanently flooded; slow soil infiltration rate in the expansion area; sparse or low-growing vegetation.

WATER QUALITY – Downstream water quality is affected by the storing and purging of nutrients, toxicants, and sediments within the substrate or the vegetation on the wetland. This function should be evaluated at the peak of the growing season. It looks at soils, vegetation, and water retention, and how these factors affect water quality both in and outside the wetland.

1.0 Dense, erect vegetation; highly organic substrate; i.e., long water retention time, or no outlet; and dispersed inflow. Includes playas.

0.6 Moderately dense vegetation; moderate retention time; outlet and inflow channel may be present;

0.2 Sparse vegetation; highly inorganic substrate; short retention time; well defined inflow or outlet channel.

3. **WETLAND FISH AND WILDLIFE HABITAT –** This section serves as a generalized wetland wildlife habitat evaluation. If a species of special concern or interest is present the effects of the proposed action on this species must be evaluated separately. Wetland fish and wildlife includes birds, mammals, reptiles, amphibians, and invertebrates. Rating criteria pertain to those elements that affect the food and cover requirements of these species.

   a. Water Regime – the presence of water.

      1.0 Water present year-round

      0.6 Water is present during the growing season for hydrophytic plants.

      0.2 Water is present intermittently (not every year or at various times throughout the year).

   b. In-kind – Amount of wetland within ¼ mile of the wetland being evaluated that is the same type as that lost or added (Circular 39 or GM 190 Part CO483 should be used in typing wetlands for this parameter).

      1.0 25% or less of other wetlands within ¼ mile, are the same type.

      0.6 25 to 75% of other wetlands within ¼ mile are the same type.

      0.2 75% or more of the other wetlands within ¼ mile are the same type.

   c. Size – (Of Wetland area)

      1.0 Greater than 10 acres.

      0.6 1.0 to 10 acres.

      0.2 < 1.0 acres.

d. Wetland Vegetative Diversity

1.0 A mixture of several emergent and submergent species present. Trees or shrubs may be present.

0.6 A mixture of several emergent or submergent species present. Scattered or few, trees or shrubs may be present.

0.2 Totally dominated by 1 or 2 species of emergent or submergent species. No woody vegetation present.

e. Adjacent Vegetation Types – The diversity of vegetation types surrounding the wetland being evaluated.

1.0 More than 90% of the surrounding vegetation is comprised of at least 2 (any combination) of the following vegetation types: (1) woody, (2) cropland, (3) pasture/hayland, (4) rangeland.

0.6 From 50-90% of the surrounding vegetation is comprised of at least 2 of the following vegetation types: (1) woody, (2) cropland, (3) pasture/hayland, (4) rangeland, or (5) one of the preceeding constitutes more than 90% of the surrounding habitat.

0.2 Less than 50% of the surrounding vegetation is comprised of any combination of the following vegetation types or the adjacent areas are residential, commercial, or are devoted to nonvegetative uses: (1) woody, (2) cropland, (3) pasture/hayland, (4) rangeland.

f. Percent of Open Water – The amount of open water present within the wetland.

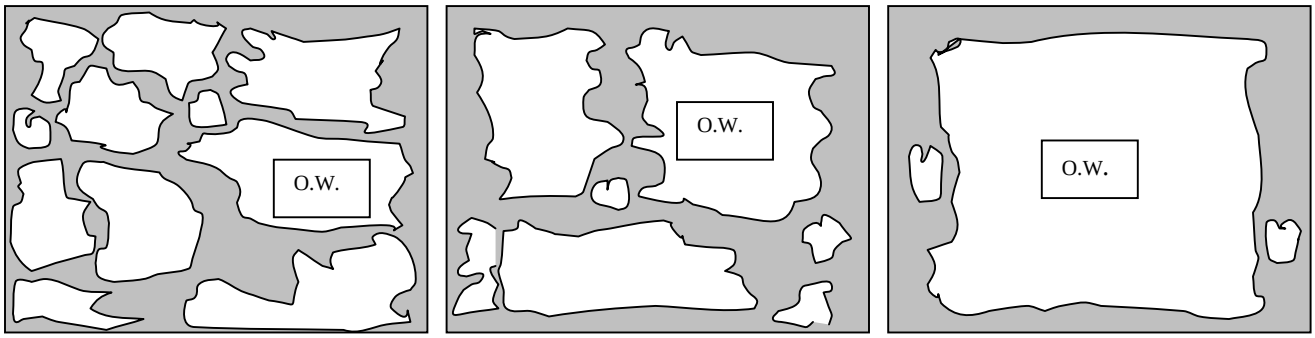
1.0 40-60% open water.

0.6 60-80% open water, or 20-40% open water, or all vegetation.

0.2 All open water.

g. Interspersion of Water to Vegetation – The spatial arrangement of water in relation to the vegetation.

1.0 0.6 0.2



or no surface water

(190-GM, Amend. CO 01, October 1992)

h. Water Quality – The suitability of the water for aquatic vertebrate and invertebrate species.

1.0 No major water quality problems evident.

0.1 A known source of pollutants-nutrients, pesticides, metals, etc. – or no surface water present.

i. Management of Wetland Area

1.0 Wetland is managed for wildlife with controlled livestock use, burning, tillage, and other disturbances nonexistent or minimal.

0.6 Some disturbance through livestock, burning, tillage, or other means occurs to the wetland – especially during the spring/summer nesting season.

0.2 Wetland is not managed for wildlife and is frequently disturbed by livestock, burning, tillage, etc.

j. Disturbance

1.0 Wetland well away from homes, human activity, heavily traveled roads, domestic pets (cats, dogs), or other factors that may limit use by wildlife.

0.6 Wetland receives some disturbance from domestic pets, highway traffic, human activity, or other factors that may tend to restrict some wildlife use.

0.3 Wetland is close to home, human activity, well traveled roads, and domestic pets frequent to the area. In general, there are factors that greatly restrict the ability of wildlife to live and reproduce in the area.