

Appendix VII

Ground Cover Potentials and Riparian Classification

Ground Cover Potential Table to be applied with Standard (S7).

GROUND COVER POTENTIALS for S7

Potential Ground Cover Values for Various Rangeland Cover Types (at Potential) of Northern Utah National Forests (Wasatch-Cache, Uinta, and Ashley National Forests) as percentages. Displayed in parentheses are

Vegetation Type	Ground Cover Range at Potential ¹	Information Source(s)
Silver Sagebrush <i>Artemisia cana</i>	89 – 96 (85%=76-82)	Ashley N.F.
Few-flowered Sagebrush <i>Artemisia tridentata</i> ssp. <i>vaseyana</i> var. <i>pauciflora</i>	81 – 96 (85%=69-82)	Ashley N.F.
Low Sagebrush <i>Artemisia arbuscula</i>	69 (85%=59)	WCNF, Guardsman Pass
Snowberry <i>Symphoricarpos oreophilus</i>	92 (85%=78)	Salt Lake R.D. (Big Cottonwood Canyon), WCNF
Birchleaf Mt Mahogany <i>Cercocarpus montanus</i>	86 – 95 (85%=73-81)	Ashley N.F.
Curleaf Mt Mahogany <i>Cercocarpus ledifolius</i>	70 – 82 (85%=60-70)	Logan R.D. (Mollens Hollow Research Natural Area); Salt Lake R.D. (Big Cottonwood Canyon – with Oak), WCNF
Aspen <i>Populus tremuloides</i>	90 – 98 (85%=77-83)	Brush Creek Allotment, Ashley N.F.
Uinta Alpine Grassland	97 – 100 (85%=82-85)	Mt View R.D. (Bald Mt), WCNF
Tall Forb	49 – 75 (85%=42-64)	Ogden R.D. (Willard Peak); Kamas R.D. (Hoyt Peak), WCNF
Oak <i>Quercus gambellii</i>	92 – 100 (85%=78-85)	Kamas R.D. (Beaver Creek); Salt Lake R.D. (Red Butte Research Natural Area), WCNF
Bigtooth Maple <i>Acer grandidentatum</i>	99 (85%=84)	Salt Lake R.D. (Red Butte Canyon RNA), WCNF
Wasatch P-J and Juniper		
Bonneville P-J and Juniper		

¹ Ground cover potential based on percent vegetation, litter, moss, and rock cover as measured using nested frequency methods except where otherwise noted.

**CLASSIFICATION GUIDE FOR RIPARIAN AREAS
(BASED ON RELATIVE RESOURCE VALUES
AND SPECIAL CONSIDERATIONS)**

The Wasatch-Cache National Forest agrees with the Utah Riparian Management Coalition (URMC) in recognizing that not all riparian areas are of equal value and importance. Some areas are critical to such resource values as water quality, “endangered” species, and “threatened” species or fish habitat while other areas may be of relative minor importance to these and other values. The guide they developed was to assist resource managers and planners in assessing the relative values and importance of riparian areas in Utah and set management priorities. We have adopted their guide with modification. These modifications for the Wasatch-Cache National Forest include: (1) the rating system will be used to determine the value of the riparian area and not used to set management objectives; and (2) riparian areas that provide habitat for “endangered”, “threatened”, proposed, candidate or forest service sensitive species are automatically identified as “high value” which will emphasize the importance of these areas and the Forest desire to meet our obligation under the Endangered Species Act (native species populations which have been established through reintroduced will not receive the automatic designation as high value but will go through the standard rating system); Management objectives for riparian areas are set in the Forest Plan or the Final Environmental Impact Statement for Rangeland Health for the Wasatch-Cache National Forest.

It is recommended that this riparian value rating system be used in conjunction with a riparian classification system such as the Utah Riparian Classification System developed for the URMC by Mark Petersen and others (1994). The riparian area to be evaluated should be classified to at least the riparian complex level. The riparian complex is then evaluated using this guide to determine the relative resource values and priority rating for the complex.

The relative ratings are suggestive of the existing or potential value of a riparian area for different resources. These are described as follows:

Class I - Riparian areas with a high rating should be given special management considerations to protect or enhance the high resource value(s) of the area. This might include exclusion or intensive management of activities such as livestock grazing, concentrated recreation, road construction, dam construction, etc., as appropriate, to maintain or enhance the area for the identified resource values. Any stream with riparian-dependent Threatened, Endangered, or Sensitive species is classified as a Class I riparian area.

Class II - Riparian areas with a medium rating should be given special management considerations to maintain or enhance the area for the identified resource values or to mitigate adverse impacts. This might include planned grazing systems, special placement or design of road, dams, trails, recreation facilities, etc., as appropriate.

Class III - Riparian areas with a low rating may not need special management considerations except to protect the basic soil, water, and vegetation resources and hydrologic functions of the area.

Each category is given a numeric value range as follows:

Category	Value Range		
	High	Medium	Low
Resource Values	10-8	7-4	3-1
Special Considerations	5-4	3-2	1

Numerical ratings are to classify different riparian areas according to relative resource values.

An interdisciplinary team must be utilized to complete the rating worksheet and reach consensus regarding the overall value of the riparian area. Certain high resource values such as Water Quality, Wildlife Habitat, or special administrative Designations may result in an overall High Rating for the riparian area being evaluated, even though the total numerical rating fall into a lower category.

RIPARIAN RATING WORKSHEET

Stream Name _____ Hydro Unit Code _____

Allotment Name _____ Ranger District _____

RATING CRITERIA FOR RIPARIAN RESOURCE VALUES			
Resource Value	High (10-8)	Medium (7-4)	Low (3-1)
Water Quality	Use and Condition of the riparian area has potential to affect the quality of downstream water for designated beneficial uses of culinary water, cold water fishery, warm water fishery, or contact recreation.	Use and condition of the riparian area has potential to affect the quality of downstream water for designated beneficial uses other than those listed for the high category.	Use and condition of the riparian area has minimal to no potential to affect the quality of downstream water for designated beneficial uses.
RATING			
Wildlife Habitat	Critical value habitat: The area provides for sensitive biological or behavioral requisites necessary to sustain the existence or perpetuation of one or more wildlife species. (This can include periods of time during which protection from human activity is essential to the population's survival, such as nesting or calving areas.)	High or substantial value habitat: The area provides for intensive or frequent use by one or more wildlife species.	Limited value habitat: The area provides for only occasional use by one or more wildlife species.
RATING			
Fish Habitat	High sport fishery productivity (rearing and spawning). No or low flow depletion from diversion of water.	Medium sport fishery productivity and/or nongame fish resource. Moderate flow depletion from diversion of water.	No fishery. Total dewatering occurs from diversion of water.
RATING			
Forage Resource	Low gradient (<2%); wide valley (>100m); high water table, but seasonally dry at the surface. No physical restrictions to grazing. Potential forage yield <1 AUM/acre	Moderate gradient (2-4%); moderate valley width (30-100m), water table 20-40" during growing season. Physical restrictions such as boulders and stones (>10' diameter) on 15 to 50% of the surface. Potential forage yield, 25-1 AUM/acre.	High gradient (>4%); narrow V-shaped valley (< 30m); Surface too wet during grazing season or water table below 40'. Physical restrictions such as boulders and stones (>10" diameter) on >50% of the surface. Potential forage yield <.25 AUM/acre.
RATING			
Recreation	Close proximity to population or popular attraction or is an outstanding local recreation resource. Physically accessible. Vegetation is highly diverse in species and structure. Would be a destination site.	Considerable recreation value, but may be considered 'standard' for what is available. Most users typically would not travel long distances to use.	Long distance to population or popular attraction. Not easily accessible. Low vegetation diversity.
RATING			
Threatened, Endangered or Sensitive Species ²	T&E species present or associated with the riparian area. Habitat is essential to threatened and/or endangered species survival.	Sensitive or category 2 T&E species present or associated with the riparian area. Habitat is (or potentially is) important for preventing further population losses.	No threatened, endangered, candidate or sensitive species present or associated with the riparian area. Habitat is not present or has limited value.
RATING			

² Any stream with riparian-dependent species, such as Colorado or Bonneville Cutthroat Trout, Riparian Class I is automatically applied.

RATING CRITERIA FOR SPECIAL RIPARIAN CONSIDERATIONS			
Special Considerations	High (5-4)	Medium (3-2)	Low (1-0)
Sensitivity to Use	Fragile soils which are highly susceptible to erosion: -Soil "K" factor >.4 -Sandy or silty -Low organic matter -Compactable soils -Shallow rooted vegetation Valley gradient low (<2%) Valley width >100m	Soils are moderately susceptible to erosion: -Soil -K' factor .2-.4 -Moderate texture Moderate organic matter Valley gradient mod (<2-4%) Valley width 30-100m	Soils are highly resistant to erosion: -Soil "K*" factor <.2 •bouldery, bedrock, or clay substrate high organic matter -Deep rooted vegetation Valley gradient high (>4%) Valley width <30m
RATING			
Special Administrative Designations	Riparian based designation -Municipal watershed -Research Natural Area -Wild & scenic river	Other designations National park or monument wilderness area state park national recreation area	No special designation
RATING			

FINAL RIPARIAN RATING

Stream Name _____ Hydro Unit Code (6th) _____

Numerical Rating: Total Numerical Score:

40 pts or more = Class I

20 pts to 39 pts = Class II

19 pts or less = Class III

Overall Team Rating: _____

Rationale supporting overall team rating if different than numerical rating:

Wasatch-Cache National Forest Streams With Riparian Classes To-Date

The following table displays Riparian Classes determined to-date through an interdisciplinary process for streams and rivers. Additional Classifications will be added as they are completed.

River Name	Riparian Class
Riparian Class I	
Beaver Creek: South Boundary of State Land to Mouth	Class I
Big Cottonwood Creek	Class I
Birch Creek	Class I
Blacks fork	Class I
Boulder Creek	Class I
Boundary Creek	Class I
Carter Creek	Class I
Curtis Creek	Class I
Deaf Smith Canyon	Class I
Duchesne River	Class I
East Fork Bear River	Class I
East Fork Blacks Fork	Class I
East Fork Smiths Fork	Class I
Farmington Creek	Class I
Gilbert Creek	Class I
Hayden Fork	Class I
Henry's Fork	Class I
High Creek	Class I
Left Fork South Fork Ogden River	Class I
Left, Right, and East Forks Bear River	Class I
Lefthand Fork Blacksmiths Fork	Class I
Little Cottonwood Creek above Murray City Diversion	Class I
Little East Fork	Class I
Logan River	Class I
Main Fork Bear River	Class I
McKenzie Creek	Class I
Meadow Creek	Class I
Mill Creek (Salt Lake City)	Class I
Moffit Creek	Class I
North Fork Provo River	Class I
North Fork Willow Creek	Class I
Ostler Fork	Class I
Provo River	Class I
Red Butte Creek above Red Butte Reservoir	Class I
Right Hand Fork Logan River	Class I
Rock Creek	Class I
Shingle Creek	Class I
Smith-Morehouse	Class I
South Fork Little Bear	Class I
South Willow	Class I
Spawn Creek	Class I
Stillwater Fork	Class I
Sugar Pine	Class I
Temple Fork	Class I
West Fork Bear River	Class I
West Fork Blacks Fork	Class I

River Name	Riparian Class
West Fork Smiths Fork	Class I
Wheat Grass	Class I
Wheeler Creek (Snowbasin)	Class I
White Pine Creek: Source to Mouth	Class I
Riparian Class II Streams	
Archie Creek	Class II
Blacksmiths Fork	Class II
Brush Creek	Class II
Burnt Fork	Class II
Dry Fork	Class II
East Fork Beaver Creek	Class II
Holbrook Creek	Class II
Joulous Creek	Class II
Kabell Creek	Class II
Main Fork Stillwater Fork	Class II
Middle Fork Beaver Creek	Class II
Middle Fork Blacks Fork	Class II
Middle Fork Ogden River	Class II
Middle Fork Weber River	Class II
Mill Creek (Bountiful)	Class II
Right Fork South Fork Ogden River	Class II
South Fork Weber River	Class II
Stone Creek	Class II
Summit Creek	Class II
Thompson Creek	Class II
Weber River	Class II
West Fork Beaver Creek	Class II
Willard Creek	Class II
Willow Creek	Class II