Bear Creek Watershed

Fact Sheet 49 Wetlands, Fens and Water Quality

March 19, 2015

All wetlands in Colorado that are not constructed wetlands are state waters, and are subject to the basic narrative standards. All tributary wetlands are initially subject to interim classifications and numeric standards. Wetlands that are not tributary wetlands or created wetlands (sometimes referred to generally as isolated wetlands) are also subject to the narrative standards. For regulatory purposes under the Federal Clean Water Act, the term wetlands means *those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions*.

Colorado defines **WETLANDS** as *those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions*. The water quality within wetlands will generally be similar to the surface or groundwater sources and should reflect a composite of these source waters. Wetlands in the watershed tend toward low nutrient conditions with some having slightly acidic conditions to alkaline.

Colorado further defines **TRIBUTARY WETLANDS** as wetlands that are the head waters of surface waters or wetlands within the floodplain that are hydrologically connected to surface waters via either surface or ground water flows. The hydrologic connection may be intermittent or seasonal, but must be of sufficient extent and duration to normally reoccur annually. Tributary wetlands are subject to the numeric standards adopted for the surface water segment to which the wetland is most directly hydrologically connected, unless it is demonstrated these standards are not being met in the wetland in question. To the extent that such a standard is not met for any given parameter, the applicable interim standard shall be the ambient levels for that parameter. Tributary wetlands are influenced by precipitation quality with some shallow groundwater input.

A type of tributary wetland in the watershed is called a fen. In the Mt. Evans portion of the watershed, these wetland fens are an important and unique wetland type. They are ancient ecosystems 8,000 to 12,000 years old. They "provide important headwater quality functions," including carbon storage, water storage, wildlife habitat, and biodiversity. Fens, are peat-forming wetlands that receive nutrients from sources other than precipitation: usually from upslope sources through drainage from surrounding mineral soils and from groundwater movement. They support a diverse plant and animal community. Fens are generally associated with low temperatures and short growing seasons, where ample precipitation and high humidity cause excessive moisture to accumulate. Fens can be slightly acidic because of the high organic content. Typically, a fen should have low to moderate nutrient enrichment.

The Bear Creek Watershed Association protects and restores water and environmental quality within the Bear Creek Watershed from the effects of land use.

Clear Creek County
Jefferson County
City of Lakewood
Town of Morrison
Aspen Park Metropolitan District
Brook Forest Inn
Conifer Sanitation Association
Conifer Metropolitan District
Denver Water Department
Evergreen Metropolitan District
Forrest Hills Metropolitan District
Genesee Sanitation & Water District
Geneva Glen
Jefferson County School District
Kittredge Water & Sanitation District
Tiny Town Foundation, Inc.
West Jefferson County Metropolitan District
Evergreen Trout Unlimited
U.S. Army Corps of Engineers

Wet meadows are a type of marshy wetland that commonly occurs in poorly drained areas such as upland areas. Wet meadows are found in the watershed on poorly drained soil along drainage systems. These wetlands, which often resemble grasslands, are typically drier than other marshes except during periods of seasonal high water. For most of the year wet meadows are without standing water, though the high water table allows the soil to remain saturated. A variety of water-loving grasses, sedges, rushes, and wetland wildflowers proliferate in the highly fertile soil of wet meadows.