

CHAPTER 7 PROTECTION OF ENVIRONMENTALLY SENSITIVE AREAS

7.1 INTRODUCTION

Wetland areas along stream corridors and lowland floodplain areas are critical in providing protection of water quality. They provide a wide range of water quality and quantity control in addition to many ecological, recreational and aesthetic benefits.

Various other environmentally sensitive areas have been identified by state and federal agencies for additional pollution and flooding protection.

7.2 PROTECTION AND HAZARD MINIMIZATION APPROACH

Cleaning up groundwater contamination is time-consuming, expensive and seldom entirely successful. Removing contamination from Karst ecosystems adds additional layers of complexity. Due to the difficulty in tracking underground flow pathways, it is extremely easy to cause accidental damage by the release of pollutants or changes in flow regime. Therefore, prevention by buffering and avoidance is best.

Design standards and methodologies to avoid stormwater releases in areas with Karst topography and minimize potential environmental impacts from development near environmentally sensitive areas are contained in this chapter. The following stepped approach addresses sensitive area protection to minimize impacts:

1. **Avoidance** – Avoid disturbance and impacts in and around environmentally sensitive areas to the Maximum Extent Practicable.
2. **Minimization** – If disturbance or impacts are necessary, they must be minimized to protect against harm to others or the environment.

7.3 BUFFER REQUIREMENTS FOR ENVIRONMENTALLY SENSITIVE AREAS.

Per the Stormwater ordinance, all land disturbance that discharges or drains to an identified critical habitat for endangered species, a Class P Stream, a Class W Wetland requires additional buffering and pollution control. These additional buffer requirements are in place to reduce construction activities and retain the natural vegetative cover to the maximum extent practicable. Dumping of trash, wastewater disposal and irrigation is strictly prohibited in environmentally sensitive areas. Requirements for wetlands and other sensitive features are 15 feet from the edge of the feature.

7.4 WETLAND PROTECTION

Wetlands are defined as lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. An area shall be classified as a wetland if it meets the Army Corps of Engineers three

parameter technical criteria as outlined in the Corps of Engineers 1987 Wetlands Delineation Manual (Section D. Routine Determinations) under normal conditions:

- three parameters for wetland determination include prevalence hydrophilic vegetation, hydric soil formation, and presence of adequate hydrology
- recommended routine method: wetland hydrology and hydric soils can be assumed if an area under examination is dominated (over 50% vegetative cover) by Facultative-wet and/or Obligate plant species as listed in the National List of Plant Species That Occur in Wetlands, Region 3 U.S. Department of the Interior, Washington D.C.; and an abrupt boundary is evident between Facultative-wet and/or Obligate plant communities and Upland plant communities
- if the area is dominated by Facultative plant species, the hydric soil and hydrology parameters cannot be assumed; therefore, are also required for determination as a wetland
- the area is not a wetland if dominated by Upland plant species, soils that are not hydric, or hydrology that is not wetland
- exceptions include permitted water quality wet ponds, and ponds fed by wells or other artificial sources of hydrology

Wetlands reduce flooding by absorbing water during rain storms. Wetlands slowly release their water into streams, keeping the stream flows continuous and providing habitat for fish and the invertebrates that serve as food for the fish. Some water percolates from the wetland into the ground and eventually recharges the groundwater. Wetlands can filter out pollutants and trap silt and sediment. Wetlands also provide extensive animal and plant habitat in addition to offering both aesthetic and recreational value.

Direct questions regarding wetland delineation, or permit and mitigation requirements to the U.S. Army Corps of Engineers, St. Louis District.

U.S. Army Corps of Engineers
St. Louis District
1222 Spruce Street
St. Louis, MO 63103-2833
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7.5 WATER BODY IDENTIFIED AS CRITICAL HABITAT FOR ENDANGERED SPECIES

The Missouri Department of Conservation assists the U.S. Fish and Wildlife Service in identifying endangered species in Missouri and the habitats critical to their survival. The Indiana Bat, Gray Bat, Topeka Shiner and Pallid Sturgeon are the only endangered species that have been identified as having habitat in Callaway County. Further information about these species and their habitats can be found on the U.S. Fish and Wildlife's and Missouri Department of Conservation's web sites.

7.6 CLASS P STREAM

The U.S. Geologic Survey shows streams with a permanent base flow on their quadrangle maps as solid blue lines. The Missouri Code of State Regulations identifies portions of the Turkey Creek and Rivaux Creek in the City of Holts Summit as a permanent flowing stream.