

flow attenuation by use of open vegetated areas and swales, retention (wet ponds) and detention (dry ponds) or combinations of these. Poor drainage characteristics in some parts of the County limit the use of standard infiltration techniques. An applicant must prove that the preferred techniques are not feasible in order to receive approval for the less preferred methods.

8. FLORA AND FAUNA

Habitat for native flora and fauna is lost when vacant land and forest cover are converted to other land uses. The deterioration of available habitat and the decline in diversity of native plant and animal communities also are caused by forest fragmentation, the invasion of non-native, more aggressive species, and the application of herbicides and pesticides.

* Montgomery County is home to a number of plant and animal species listed as endangered by the Federal Government, as well as several species being considered for listing. The Maryland Natural Heritage Program listed 267 plants and 76 animals in the state as rare, endangered, or threatened in 1987. Of the 267 plant species listed, over 100 species are believed to be found in Montgomery County. The County is thought to have the highest concentration of endangered and rare plant species on the northeast coast, due largely to the diverse habitat in the Potomac River floodplain and the Great Falls Natural Heritage Area. Natural Heritage Areas, designated by the State of Maryland, are composed of plant or animal communities that are considered to be among the best statewide examples of their type, with at least one species that is endangered, threatened, or in need of conservation.

In addition to those two places, Montgomery County has a large variety of habitats that house rare and endangered species: rock outcroppings, steep rocky slopes, bogs and other wet areas, fertile stream valleys, meadows, and fields. Chain Bridge flats, on the Potomac River, is the only known site of the Mossy-Cup Oak in the County.

A very rare Maryland species, the Crested Dwarf Iris, grows in Gaithersburg.

Four species of birds that have been found in the County are among the species in the greatest danger of disappearing from the state's or nation's wild breeding stock. They are the Bald Eagle, Short-eared Owl, Loggerhead Shrike, and Bachman's Sparrow.

9. TREES

Trees produce the oxygen we breathe, absorb stormwater, moderate our climate, and provide a home for plants and animals. They also are viewed as an amenity that helps create a sense of community. However, they often are cleared so that a property might be used more profitably. In growing recognition of their aesthetic and environmental worth, the County has begun to take steps to preserve and replenish its woodlands.

* Montgomery County has the least amount of forest cover among counties comprising the Washington, D.C., MSA. The County has undergone two periods of deforestation. Agricultural clearing in the early 20th century reduced tree cover to 22 percent of the total land area. After a period of tree regeneration lasting until the mid-1960s, during which the tree cover increased to 32 percent, the County was further urbanized, which reduced the amount of forested land to between 16 and 22 percent, depending on whether estimates of urban tree cover are included. Between 1965 and 1985, the County lost commercially valuable timber at a rate that was the highest among the Washington region's major jurisdictions. Declining tree cover and the fragmentation of the remaining forest areas into smaller tracts has been blamed for the decline of certain animal species which depend on the existence of "deep woods."

* There has been a concerted effort to plant trees. About 250,000 trees have been planted along the County's streets with public funding, while an additional 200,000 to 300,000 have been planted by private individuals or groups, within