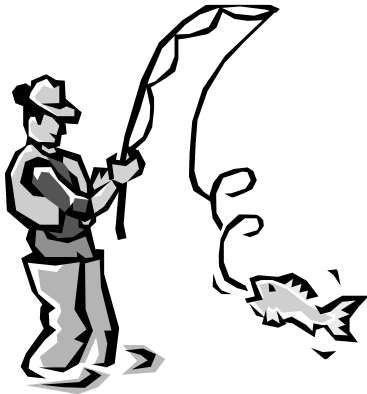


Nontidal Wetlands *and Their Values*



Maryland Department of the Environment



What is a nontidal wetland ?

Nontidal wetlands are inland, freshwater areas not subject to tidal influence. They are typically areas where the water table is at or near the surface, or the land is covered by shallow water. The term "nontidal wetlands" encompasses a variety of environments such as marshes and swamps, bottomland hardwood forests, wet meadows, inland bogs and the shallow areas of lakes and ponds.

What benefits do nontidal wetlands provide ?

The health of the Chesapeake Bay ecosystem is inextricably linked to the abundance and condition of the wetlands in the bay watershed. Nontidal wetlands possess many of the same physical and biological characteristics as tidal wetlands. They perform similar ecological functions which are of value to man. These include:

- 1) Fish and wildlife habitat
- 2) Habitat for rare, threatened and endangered species
- 3) Erosion control
- 4) Water quality improvement
- 5) Stormwater/flood control
- 6) Contribution of organic (plant) material to the bay food chain
- 7) Timber production
- 8) Recreational opportunities and scenic beauty



Many species of wildlife, particularly waterfowl and other birds, use nontidal wetlands for breeding, wintering and migrating. Valuable furbearers such as muskrats and beavers also inhabit nontidal wetlands.

Some of the nation's endangered species make their homes in nontidal wetlands or are dependent upon them. When critical reproductive areas are filled for development or choked by pollution and excessive nutrients, the populations of these bay species will decline.

Wetland plants are very effective in lessening erosion of banks because they have extensive and complex root systems that hold soil in place and reduce sedimentation. Sedimentation decreases the penetration of sunlight needed by submerged aquatic plants and severely impacts reproduction and survival of aquatic life.

The aquatic food chain is dependent upon tidal and nontidal wetlands to provide nourishment for the many fish, shellfish and smaller organisms that spend periods of their lives in the wetland habitat. Organic material, or food, is produced in the water by the breakdown of wetland plant leaves and stems.

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The special characteristics of nontidal wetlands make them particularly important to Marylanders for the following reasons:

Upland runoff water that passes through nontidal wetlands is filtered. This improvement in water quality comes from the nontidal wetland's ability (1) to intercept and retain excess nutrients such as nitrogen and phosphorus compounds and other pollutants, and (2) to trap sediment and reduce suspended solids in the overlying water.

Potentially damaging volumes of fast moving storm or flood water are temporarily stored in nontidal wetland areas. The gradual release of the water by the wetland minimizes erosion of agricultural fields and urban/suburban property loss.

There is evidence that nontidal wetlands may discharge water to adjacent streams when stream flow is low. The wetland itself is recharged when the stream level is higher than that of the wetland.

Nontidal wetlands also produce natural crops. The most valued commercial product is timber, an important industry on the Eastern Shore. Common species include Loblolly Pine, Oak and Red Maple. People also harvest crops of blueberries, cranberries and crayfish for individual consumption.

Nontidal wetlands have a natural beauty which

has inspired painters and writers for centuries. They are now joined by enthusiasts with cameras and video and sound recorders. Battle Creek Cypress Swamp in Southern Calvert County contains the last remaining stand of bald cypress in central Maryland. These 100-foot tall trees are prized for their beauty.

There is also endless opportunity for recreation such as fishing and waterfowl hunting, as well as hiking, birdwatching, canoeing and other activities. The financial benefit of these wetland-dependent activities to the economy is very significant, and is threatened with increasing nontidal wetland losses.



Is more information available ?

The following brochures and information sheets are available, free, from the Water and Science Administration, Nontidal Wetlands & Waterways Division, 1800 Washington Blvd., Baltimore, MD 21230, (410) 537-3768.

- Nontidal Wetlands Regulations and Agriculture
- Nontidal Wetlands Regulations and Aquaculture
- Nontidal Wetlands Regulations and Forestry
- Nontidal Wetlands Regulations and Development Activities
- Nontidal Wetlands Regulations and the Property Owner
- Nontidal Wetlands Regulations and Mitigation
- Nontidal Wetlands Regulations and Mitigation Bonding
- Nontidal Wetlands Classifications
- The Values of Nontidal Wetlands
- The Nontidal Wetlands Protection Program
- Nontidal Wetlands of Special State Concern
- Nontidal Wetlands Documents
- How to Recognize a Nontidal Wetland