The pages in this document were taken from the "Corsica River Watershed Characterization" published in October 2003. The entire document can be found at http://dnrweb.dnr.state.md.us/download/bays/cr_char.pdf.

Corsica River Watershed Characterization

Excerpt Showing an Example of Wetland Documentation

October 2003

Wetlands

1. Wetland Categories

The Coastal Plain Province likely has the highest diversity of emergent estuarine and palustrine (fresh water) wetland communities relative to other Maryland physiographic regions because both tidal and nontidal freshwater marshes occur here. Wetlands are most abundant in the Coastal Plain due to the low topographic relief and high ground water table characteristic of the region.

Estuarine Wetlands are abundant throughout the Coastal Plain. These systems consist of salt and brackish tidal waters and contiguous wetlands where ocean water is occasionally diluted by freshwater runoff from the land. These wetlands may extend far upstream in tidal rivers to freshwater areas. Differences in salinity and tidal flooding within estuaries have a significant effect on the distribution of these wetland systems. Salt marshes occur on the intertidal shores of tidal waters in areas of high salinity. Brackish marshes are the predominant estuarine wetland type in Maryland. They are found along the shores of Chesapeake Bay, mostly on the Eastern Shore, and for considerable distance upstream in coastal rivers. Estuarine shrub swamps are common along the Maryland coastal zone. Aquatic beds, comprised mostly of submerged aquatic

vegetation (SAV), were historically abundant in shallow water zones of Maryland's estuaries, especially Chesapeake Bay and its tributaries.

Palustrine wetlands are freshwater wetlands that are not associated with streams or lakes. In general, they are associated with freshwater, high water tables or intermittent ponding on land. Forested wetlands are the most abundant and widely distributed palustrine wetland type on the Coastal Plain. These wetlands are found on floodplains along the freshwater tidal and nontidal portions of rivers and streams, in upland depressions, and in broad flat areas between otherwise distinct watersheds. Tidal freshwater swamps occur along coastal rivers in areas subject to tidal influence. Scrub-shrub swamps are represented in the Corsica River Watershed. Emergent wetlands on the Coastal Plain are characterized by a wide range of vegetation, depending on water regime. (Adapted from *Wetlands of Maryland*, Tiner and Burke, 1995.)

2. Tracking Wetlands

Oversight of activities affecting wetlands involves several regulatory jurisdictions. The Maryland Department of the Environment (MDE) is the lead agency for the State and cooperates with DNR, the Army Corps of Engineers and other Federal and local agencies. As part of its responsibility, MDE tracks State permitting and the net gain or loss of wetlands over time.

As the table Tracking Nontidal Wetland Change shows, the State regulatory program has measured a small net decrease of wetland acreage in the Corsica River Watershed over the past 11 years. This slowing of wetland loss in the watershed contrasts significantly with the estimated historic 4,192 acre wetland loss in the watershed as described in the Landscape Indicators section.

Tracking Nontidal Wetland Change For The Corsica River Watershed In Acres 1/1/1991 through 12/31/2002 [9]				
Permanent Impacts	**Permittee Mitigation**	**Programmatic Gains**	**Other Gains**	**Net**
-0.95	0.45	0	0	-0.49

Notes: 1) Regulatory tracking for authorized nontidal wetland losses began in 1991. Comprehensive tracking of voluntary wetland gains began in 1998. Only nontidal wetland changes are shown; tidal wetland changes are excluded. Acreage presented represents changes for the entire watershed.
2) "Permanent Impacts" refers to acres altered (e.g., filled, drained) under permit from MDE.
3) "Permittee Mitigation" refers to acres restored by a permit holder as required by terms of the permit from MDE.
4) "Programmatic Gains" refers to acres restored by MDE using fees paid into a compensation fund by a permit holder in lieu of undertaking mitigation himself.
5) "Other Gains" refers to acres of wetlands restored when not required as mitigation for permitted losses

3. Interpreting Wetland Distribution

Map 12 Wetlands and Wetland Acreage Summary Table summarize distribution and categories of wetlands in the Corsica River Watershed. Two wetland categories account for all of the wetlands in the watershed:

– Estuarine wetlands of all types account for slightly over 7% of all watershed wetlands, and
– Palustrine wetlands account for the remaining 93% of watershed wetlands. Forested Palustrine wetlands alone account for over 81% of all watershed wetlands.

In comparing the wetlands map to Map 6 Land Use / Land Cover, it can be seen that many of the nontidal wetland areas are depicted as forest on the land use map. And most of the estuarine wetlands are not identified on the land use map These differences are simply the result of two differing views of the landscape. For example, wooded nontidal wetlands can be viewed as "wetlands" from a habitat / regulatory perspective and they can be viewed as "forest" from a land use perspective. Similarly, most of the estuarine wetlands shown on the wetlands map are considered open water on the land use map.

In the Corsica River watershed, differing perspectives on counting wetlands are significant for watershed management. From a land use perspective, 100 acres of wetlands are identified by the Maryland Department of Planning. From a habitat / regulatory perspective, there are at least 2,592 acres of wetlands in the watershed.

In the context of the Watershed Restoration Action Strategy (WRAS), wetlands serve valuable water quality and habitat functions that may not be provided by other land uses. Therefore, protection and enhancement of existing wetlands, and restoration of past wetland areas, can be a valuable element in the WRAS. (Also see the Wetland Restoration section.)

Wetland Acreage Summary Table
Corsica River Watershed

Wetland Class		Acres
Estuarine	tidal emergent	159
	scrub shrub	6
	unconsolidated bottom	4
	unconsolidated shore	17
Palustrine	emergent	102
	flooded semipermanently	56
	forested	2,104
	scrub shrub	54
	unconsolidated bottom	90
Total Wetlands (DNR mapped wetlands)		2,592

Wetlands of Special State Concern (WSSC)
None of the wetlands in the table above are subject to WSSC regulations. See the Sensitive Species Section.