

Appendix 17A

Recommendations Regarding Wetland Zoning and Expansion of Resource Protection Areas for Wetlands and Vernal Pools

The Harpswell Conservation Commission recommends that the Town consider changing the resource protection zoning for selected wetlands and consider expanding the resource protection zoning. Our specific recommendations are described below.

1. Change Selected Resource Protection Zoning

Twenty-seven wetlands have been identified as having important functions for the Town of Harpswell. Please see **Appendix 17B** for a map of these wetlands. In the 2002 Land Use Committee report¹ to the selectmen on the protection of wetlands, member and Conservation Commission co-chair, Jim Burke wrote:

“Wetlands, both freshwater and coastal, provide habitat for fish, wildlife, and plants; they act as natural filters to improve water quality; and are important for their recreational, educational and scenic value. Since our land area is small relative to our coastline, wetlands are especially important in Harpswell.”

Coastal marshes are one of the most productive ecosystems in the world. They are vital to protecting marine water quality, initiating the marine food chain and providing habitat for a variety of animals, birds, fish and plants. Over 70% of commercial fish species utilize coastal marshes at some point in their life cycles. The salt marshes, which are relatively rare in Maine, are particularly valuable for fish and shellfish nurseries. Clam flats provide a significant source of income, and certain wetland locations are productive lobster nurseries.

Freshwater wetlands have particular value for storm water retention and filtering, which in turn, helps to protect coastal waters from pollution and sedimentation and can be valuable for aquifer purification and recharge. These wetlands also provide habitat for fish, numerous types of birds, mammals, and amphibians. In Harpswell, where the land area is small, even the smaller wetlands can have great value.

The uplands adjacent to wetlands have a great deal of influence on the wetlands themselves and how they function. If left in their natural state, these uplands provide wildlife corridors and isolation from human activities. Also they constitute a local watershed around the wetland which can act as a “pre-filter to control runoff and reduce sedimentation and pollution.”²

Yet, our wetlands are vulnerable and sensitive to human activities that degrade their values. Run-off contamination from our roads and gardens can introduce pesticides and other poisons into the water. Wildlife travel corridors can be destroyed by cutting cover plants in riparian areas. When our wetland areas are drained and filled, they lose their filtering and pollution control functions. Their buffering values are lost. As a result, Harpswell will benefit in many ways if a strong wetland protection program is in place.

¹ Report to Selectmen on Review and Recommendations for Protection of Harpswell’s Mainland Wetlands and Off-shore Islands, January 2, 2002. *Functions and Values of Wetlands and Adjacent Uplands*

² Report to Selectmen on Review and Recommendations for Protection of Harpswell’s Mainland Wetlands and Off-shore Islands, January 2, 2002. *Functions and Values of Wetlands and Adjacent Uplands*

It has been the Town's practice to apply resource protection zoning to all coastal marshes and freshwater wetlands over 5 acres. The Resource Protection District includes areas in which development would adversely affect water quality, productive habitat, biological ecosystems, or scenic and natural values. This district includes areas such as floodplains and steep slopes when they occur within the limits of the Shoreland Zone.³

The Conservation Commission agrees with this practice and recommends that four wetlands that are currently zoned as Shoreline Residential⁴ should have Resource Protection zoning applied to them. They are:

- **Coastal Wetland #29** comprises the Harpswell segment of the Middle Bay Cove coastal marsh. It is just less than 5 acres, but it more than doubles in size when it is combined with the Brunswick portion. It is part of the Maquoit & Middle Bay Focus Areas of Statewide Ecological Significance. It is a diverse marsh with significant wildlife habitat for tidal waterfowl and wading birds, part of the largest shorebird area for feeding, nesting and staging in upper Middle Bay, and a high value habitat for priority species. It is a resource for soft shell clams and blood worms and one of the few remaining area nurseries for the horseshoe crab.
- **Coastal Wetland #19** is in North Harpswell and covers 12 acres. Adjacent to Wetland #11, this estuary meets the criteria for resource protection. It serves as a floodplain and riparian corridor and includes inter-tidal emergent vegetation which provides habitat for marine nurseries.
- **Freshwater Wetland #6** is located east of Cranberry Horn Hill and should be changed to Resource Protection due to its value for production export and habitat for wildlife. This wetland is 6 acres in size, contains sphagnum moss and provides a freshwater pool for frogs and aquatic insects. There is also a stream, but without standing water. This wetland plays a role in the marine food chain, and has the potential to protect Quahog Bay from pollution which drains into Brickyard Cove.
- **Great Pond, Wetland #23** is called Dan's Ice Pond in Gun Point and should be in Resource Protection due to its value for production export, habitat for wildlife, sediment/toxicant removal and its potential to absorb pollution. In addition, the site is in the FEMA 100-yr. floodplain and is a Great Pond and should therefore be given Resource Protection status. Great Ponds are protected by the State, but this property received an exemption.

³ The **Resource Protection District** includes areas in which development would adversely affect water quality, productive habitat, biological ecosystems, or scenic and natural values. This district includes areas, such as, flood plains and steep slopes when they occur within the limits of the Shoreland Zone, except those areas which are developed and areas which meet the criteria for Shoreland Business, or Commercial Fisheries I and II Districts need not be included within the Resource Protection District

⁴ The **Shoreland Residential District** includes those areas suitable for residential and recreational development. It includes areas other than those in the Resource Protection District, and areas which are used less intensively than those in the Shoreland Commercial District, or the Commercial Fisheries I & II District.

2. Expansion of Resource Protection Areas

The Conservation Commission recommends that the Town study the expansion of our resource protection areas or districts, especially around important freshwater wetlands and significant vernal pools.