

Siting Considerations for New and Expanding Marinas



Environmental Concerns

The natural plant and animal communities of coastal areas serve multiple functions. Wetlands, for example, provide habitat for fish and fowl. They form a natural buffer against incoming storms and act as a filter to purify stormwater runoff from the land. Wetlands also minimize erosion and support tourism, hunting, and fishing. Because of the ecological, economic, recreational, and aesthetic values inherent in coastal resources, it is important that shoreside development not diminish these features.

Legal Setting

Critical Area Program

Maryland enacted the Chesapeake Bay Critical Area Protection Program (Natural Resources Article §8-1801-1817 and COMAR, Title 27) in 1984, and extended the law in 2002 to the Atlantic Coastal Bays. The program minimizes damage to water quality and natural habitats by fostering more sensitive development along all Maryland tidal waters. The Critical Area Law is meant to:

- ◆ minimize adverse impacts on water quality that result from pollutants that are discharged from structures or conveyances or that have runoff from surrounding lands;
- ◆ conserve fish, wildlife, and plant habitat; and
- ◆ establish land use policies for development in the Chesapeake and Atlantic Coastal Bays Critical Areas which accommodate growth and also address the fact that, even if pollution is controlled, the number, movement, and activities of persons in those areas can create adverse environmental impacts.

While the Critical Area Law is a State law, it is implemented at the local level. Counties and municipalities in the Critical Area have developed local Critical Area Programs. The programs vary slightly so local programs and ordinances should always be consulted. Local planning offices are the first point of review for most development projects. Refer to Appendix II for local Critical Area contacts.

The Critical Area encompasses all waters and submerged lands of the Chesapeake and Atlantic Coastal Bays to the head of tide, and all lands and waters within 1,000 feet of mean high water or from the edge of tidal

wetlands. The 100 feet of land closest to the mean high water line or edge of wetlands is the Critical Area buffer. Only “water-dependent” facilities, like marinas, are permitted in the buffer. Non-water dependent structures associated with marinas, such as tackle shops or dry storage areas, are not permitted in the buffer. The siting of new or expanding marinas is further restricted to Intensely Developed Areas and Limited Development Areas within the Critical Area.

When selecting a site for a new or expanding marina, you must avoid or minimize your impact upon the following resources in order to comply with the Critical Area criteria.

- ◆ submerged aquatic vegetation (SAV)
- ◆ tidal and nontidal wetlands
- ◆ shellfish beds
- ◆ rare, threatened, or endangered species
- ◆ spawning, nursery, or propagation areas for anadromous fish
- ◆ shallow water habitat
- ◆ colonial waterfowl nesting sites
- ◆ existing riparian forests
- ◆ forests with interior dwelling bird species
- ◆ natural heritage areas
- ◆ tributary streams
- ◆ waterfowl staging areas

The Critical Area criteria also apply to the Atlantic Coastal Bays. See *Laws and Regulations* for a more complete discussion of Critical Area criteria.

Environmental Review

In addition to the resources listed above, the Department of Natural Resources (DNR) will evaluate all proposals—including those for projects outside of the Critical Area—for impacts to:

- ◆ stream buffers,
- ◆ wildlife corridors,
- ◆ wild and scenic rivers,
- ◆ navigational safety, and
- ◆ fisheries habitat, including natural oyster bars and barrier to migration.

The Environmental Review Unit of DNR will coordinate the Department’s response to all proposals. Proposals may be submitted as part of the permit process (most environmental permits are issued by the Maryland Department of the Environment) or a preliminary plan may be submitted directly to the Environmental Review Unit. Once a preliminary plan has been reviewed, DNR can advise you what the expected impacts and mitigation measures will be.

State Tidal Wetlands Regulations

The State's tidal wetland regulations (COMAR 26.24.04.03) contain siting guidelines for new and expanding marinas. New and expanding marinas must be located to avoid and minimize impacts to tidal wetlands and other aquatic resources. Furthermore, they must be on waterways with strong flushing characterized by:

- ◆ a bottom that slopes from headwaters to mouth without sumps or other features which inhibit complete water exchange,
- ◆ an unstricted entrance, and
- ◆ few branches, coves, and other features which inhibit complete mixing.

New or expanding marinas may not be located in water that is equal to or less than 4.5 feet deep at mean low water or in areas where their presence would adversely impact:

- ◆ submerged aquatic vegetation;
- ◆ productive macroinvertebrate communities;
- ◆ shellfish beds;
- ◆ fish spawning or nursery areas;
- ◆ rare, threatened or endangered species, or species in need of conservation; or
- ◆ historic waterfowl staging areas.

United States Army Corps of Engineers

The majority of marina development and expansion projects, including dredging, will require a permit from the Army Corps of Engineers. Section 10 of the Rivers and Harbors Act of 1899 gives the Army Corps authority to regulate all work and structures in navigable waters of the United States. Section 404 of the Federal Water Pollution Control Act (a.k.a. Clean Water Act) regulates discharges of dredged or fill materials into navigable waters, including wetlands.

If an Army Corps Section 404 permit is required, the Maryland Department of the Environment (MDE) must investigate the site prior to construction. The Department of the Environment will document and evaluate water quality and the potential for pollution and adverse effects to living resources caused by marina siting and construction. The purpose of the Water Quality Certification process is to certify that federally permitted activities will not violate Maryland's water quality standards. The Water Quality Certification issued by MDE is then incorporated into the federal permit.

Site Selection Guidelines

Redevelop Existing Sites. Rather than disturbing pristine areas, place new facilities in previously-developed waterfront sites.

- ◆ State tidal wetlands regulations favor expansion of existing marinas over development of new facilities (COMAR 26.24.04.03).
- ◆ Critical Area criteria encourage placement of boating facilities in developed areas.

Characterize Project Site.

- ◆ Identify habitat types and seasonal use of the site by fish, shellfish, waterfowl, and other organisms.
- ❖ If necessary, hire a private consulting firm to perform the site assessment.

Identify Rare and Endangered Species.

- ◆ Rare and endangered species may not be disturbed (Federal Endangered Species Act, Natural Resources Article §4-2A-01 et seq., and Natural Resources Article §10-2A-01 et seq.).
- ◆ All proposed development sites must be assessed by the U.S. Fish and Wildlife Service (USFWS) and the Maryland Department of Natural Resources for endangered and threatened species and habitat protection areas.
- ❖ For a preliminary screening of a project site, contact your local planning office. Ask them to consult the Sensitive Species Project Review Areas (SSPRA) data layer of DNR's Geographic Information System, MERLIN Online, at www.mdmerlin.net.
- ❖ For more precise information concerning sensitive habitat areas, submit a project description and a photocopy of a United States Geological Survey topographic quadrangle map—with the site identified—to DNR's Environmental Review Unit and USFWS.
- ◆ If protected species are identified, you must implement an approved protection plan prior to project approval.

Avoid Submerged Aquatic Vegetation. Submerged aquatic vegetation (SAV) provides habitat for shellfish and finfish and food for waterfowl. It is an indicator of good water quality.

- ◆ Permits generally are not granted for any new or expanded construction that impacts existing SAV beds.
- ◆ State tidal wetlands regulations (COMAR 26.24.02.06) specifically prohibit dredging within 500 yards of SAV beds from April 15 to October 15.
- ◆ State tidal wetland regulations (COMAR 26.24.03.03) generally prohibit dredging in water three feet or less at mean low water, i.e., prime SAV habitat.
- ◆ Critical Area criteria mandate minimum SAV disturbance as a condition for locating water-dependent facilities (COMAR 27.01.03.04).
- ❖ Site new or expanded marinas such that navigation over SAV beds is not necessary.



State tidal wetlands regulations require that dredging projects first avoid and then minimize impacts to shellfish beds, submerged aquatic vegetation, and vegetated tidal wetlands (COMAR 26.24.03.02).



Debris and silt tend to collect in poorly-flushed areas and will eventually settle to the bottom. As the debris is decomposed by bacteria, oxygen is removed from the water. Water quality may suffer if oxygen is not replaced as quickly as it is removed.

Minimize Disturbance to Wetlands.

- ◆ Minimize disturbance to wetlands and indigenous vegetation in riparian areas.
- ◆ It is the goal of the State to preserve—and when possible, increase—tidal wetland acreage and function (COMAR 26.24.01.01).
- ◆ Critical Area criteria specify that disturbance to wetlands must be minimized (COMAR 27.01.03.04).
- ◆ Any construction that does extend into tidal wetlands requires authorizations, licenses, or permits from the Maryland Department of the Environment, Army Corps of Engineers, and the Maryland Board of Public Works.
- ◆ Mitigation is required in cases where loss of wetlands is unavoidable.

Avoid Shellfish Beds.

- ◆ New or expanded marinas are not permitted in areas that may adversely impact shellfish beds (COMAR 26.24.04.03).
- ◆ Critical Area criteria require that shellfish beds not be disturbed or made subject to discharge that will render them unsuitable for harvesting (COMAR 27.01.03.04).
- ◆ An offset distance must be maintained between new marinas and shellfish beds. The separation helps to reduce chances that shellfish will become contaminated by boating-related pollutants.
- ◆ Shellfish stock may not be harvested from the waters of existing marinas.
- ◆ Harvesting shellfish from “buffer zones” in ambient waters near marina basins is prohibited between May 1 and September 30.

Avoid Critical Migration, Nesting, and Spawning Periods.

- ◆ Schedule construction to avoid critical migration, nesting, and spawning periods of important species of finfish, shellfish, and wildlife.
- ❖ Consult with DNR’s Environmental Review Unit for site-specific determinations of the potential effects of activities on wildlife populations.

Avoid Colonial Waterfowl Nesting and Staging Areas. Regional waterfowl populations converge in certain areas to breed and feed during specific times of year. The preservation of historic nesting and staging areas is vital to the continued existence of many waterbird species. Marinas must be located such that the increased boating activities associated with new or expanded marinas do not deter waterfowl from using historic staging and concentration areas.

- ◆ State tidal regulations and Critical Area criteria require new or expanding marinas to avoid areas that will adversely impact historic waterfowl staging areas (COMAR 26.24.04.03 and COMAR 27.01.03.02).

Avoid Geographic and Hydrographic Impediments. Flushing is impeded at the head of tide and in areas where salinity or temperature differences produce variations in water density. Variations in density cause the water column to separate into distinct layers that do not readily mix.

- ◆ Marinas must be located on well-flushed waterways (COMAR 26.24.04.03).

Consider Bottom Configuration.

- ❖ A continuous, gradual downward slope from the berthing area into deeper water is ideal.
- ❖ Avoid canals, irregular pockets, and sumps that are deeper than adjacent channels.
- ❖ Avoid square corners in marina basins and dead-end channels to the greatest extent possible.

Follow Natural Channels.

- ❖ Align entrance channels with natural channels to increase flushing.
- ❖ Boat lanes should progressively widen toward the seaward end and narrow toward the inland end to allow water to flow freely and maintain its velocity within the marina.
- ❖ Avoid locating the entrance channel perpendicular to the natural channel as shoaling (and, therefore, dredging) is a potential problem.
- ❖ Avoid long winding channels connecting marinas to open water.
- ❖ Where possible, establish two openings at opposite ends of the marina to promote flow-through currents.

Information Sources

Appendix I

Critical Area
Commission

Local Planning
and Zoning
Offices

Maryland
Department of
Natural Resources
• Environmental
Review

Maryland
Department of the
Environment
• Water
Management
Administration

U.S. Fish and
Wildlife Service

Appendix II

Local Critical
Area Commission
Contacts