Maryland State Police or (ii) Reproduce, alter, simulate, or display any fictituous, stolen or other unauthorized stickers."

H. Under Part 397.

None.

I. Under Part 398.

398.2 Delete that part of the sentence reading "and then only if" through the end.

.04 Other Federal Regulations.

Other federal Regulations that are referred to in parts 390 through 398 of 49CFR are incorporated by reference into these regulations and are applicable.

W. MARSHALL RICKERT
Acting Administrator
Motor Vehicle Administration

[Md. R. Doc. No. 85-R-223-P. Filed at Div. of St. Doc. May 14, 1985.]

Title 14 INDEPENDENT AGENCIES

Subtitle 15 CHESAPEAKE BAY CRITICAL AREA COMMISSION CRITERIA FOR LOCAL CRITICAL AREA PROGRAM DEVELOPMENT

Authority: Natural Resources Article, §§8-1806 and 8-1808(d), Annotated Code of Maryland

Notice of Proposed Action

The Chesapeake Bay Critical Area Commission proposes to promulgate new Regulations 01 and .02 under COMAR 14.15.01 General Provisions; new Regulations .01 — .05 under COMAR 14.15.02 Development in the Critical Area; new Regulations .01 — .10 under COMAR 14.15.03 Water-Dependent Facilities in the Critical Area; new Regulations .01 and .02 under COMAR 14.15.04 Shore Erosion Protection Works; new Regulations .01 — .03 under COMAR 14.15.05 Forest and Woodland Protection; new Regulations .01 - .03 under COMAR 14.15.06 Agriculture; new Regulations .01 — .03 under COMAR 14.15.07 Surface Mining; new Regulations .01 - .03 under COMAR 14.15.08 Natural Parks; new Regulations .01 — .05 under COMAR 14.15.09 Habitat Protection Areas in the Critical Area; and new Regulation .01 under COMAR 14.15.10 General Implementation Requirements for Local Program Development. If adopted, the proposed regulations will become effective June 1, 1986. Purpose.

These regulations are published pursuant to the Chesapeake Bay Critical Area Law, passed in 1984. Therein, the General Assembly recognized that the cumulative effects of human activity have resulted in deteriorating water quality and productivity of the Bay and its tributaries; that this activity has caused increased levels of pollutants, nutrients, and toxics in the Bay system, and has resulted in the decline of more protective land uses such as forestland and agriculture; and that the restoration of the Bay and its tributaries is dependent, in part, upon minimizing further

adverse impacts to water quality and natural habitats of the shoreline and adjacent lands.

While primary responsibility for developing and implementing Critical Area resource protection programs under the Act is given to local governments, the Chesapeake Bay Critical Area Commission is charged with developing such standards and criteria that the local programs must meet in order to achieve the three protective goals of the Act;

(1) Minimize adverse impacts on water quality that result from pollutants that are discharged from structures or conveyances or that have run-off from surrounding lands;

(2) Conserve fish wildlife, and plant habitat; and

(3) Establish land use policies for development in the Chesapeake Bay Critical Area which accommodate growth and also address the fact that, even if pollution is controlled, the number, movement, and activities of persons in that area can create adverse environmental impacts.

Thus, the primary purpose of the Law, and these regulations, is to foster more sensitive development activity for certain shoreline areas (at a minimum, all land and water areas within 1,000 feet of the landward boundaries of State or private wetlands and the heads of tide, as defined in Title 9 of the Natural Resources Article of the State Code, with certain exclusions permitted).

Other key purposes, all related to and derived from the findings and goals of the Act, are to encourage the conservation of tidal and non-tidal wetlands within the Critical Area so that their nursery, natural filtration capacities, and abilities to absorb flood and erosive impacts are maintained; to attenuate adverse impacts on submerged aquatic vegetation in order to help restore both shellfish and finfish productivity; to preserve the natural functioning of estuarine water circulation, which is essential to the control of salinity, water temperature and nutrient exchange, and the flushing of animal and plant wastes; and to promote the types, intensities, and appropriate land uses that are compatible and consistent with the protection of habitat, water quality, and the vital resources of the shore/water margin, while accommodating the need for some growth around the Bay.

In developing specific policies and criteria to achieve these purposes, the Commission recognized and incorporated the following general philosophies into its criteria framework:

(1) That the land/water interface, or critical area, is diverse in resource and ecological value, extremely sensitive to impact, but also a most desirable location for the conduct of water and non-water related activities; thus this conflict needs to be dealt with in a balanced fashion;

(2) That the conditions of fish, wildlife and plant habitats are the most sensitive indicators for measuring the short and long-term accomplishments of the Critical Areas Program and that the criteria should address this fact;

(3) That it makes economic sense to proceed with a balanced planning program, one which accommodates development within a framework of minimizing the loss or degradation of existing natural and man-made features;

(4) That within the spectrum of resources in the Critical Area, there occur particular resources which, due to their location or natural function, are particularly susceptible to loss or degradation and, therefore, may need to be identified and specifically managed;

(5) That in planning and carrying out activities within the Critical Area, local governments help to determine the fate of the Bay; therefore, the criteria should set the direction for a more uniform approach to land use in the Critical Area involving both public and private sectors; and (6) That all uses of the Bay and its resources in the Critical Area must be equitably impacted by the criteria so that one particular user group is not singled out to bear the entire cost for improving the water quality and habitat in this area.

Organization.

In order to reflect these purposes and general philosophies, the regulations that follow are organized in the following manner:

First, the more specific criteria are presented in a format that seemed most reflective of how the regulations might actually be applied at the local level. Chapter 01 is comprised of the applicable definitions, while Chapter 02 presents a broad outline for guiding how local governments should establish planning for land development in the Critical Areas. Existing development in the local jurisdictions' Critical Areas is to be identified and categorized, according to factors offered by the Commission, into three types of areas: Intensely Developed Areas, Areas of Limited Development, and Resource Conservation Areas. Within each type of area, the criteria are intended to promote appropriate intensities of further development, and to help control water quality and habitat impacts that such development imposes on the Bay environment.

Criteria for controlling resource-based activities within the local Critical Areas contained in Chapters 03 through 08, comprise the second set of criteria that are presented. Such resource utilization activities and land uses as agriculture, forestry, and the mining of sand and gravel are ad-

dressed in these chapters of the regulations.

Thirdly, certain natural resources require protection because of their special value as plant, fish, and wildlife habitat, and sensitivity to disturbance (for example, anadromous fish spawning habitat, or the habitat or rare and endangered species). Criteria for protecting these special resources are set out in Chapter 09 of these regulations.

Finally, a set of general programmatic requirements are presented in Chapter 10. Among these, for example, are the kinds of planning activities that must be undertaken by all local jurisdictions in the Critical Area in order to de-

velop an acceptable Critical Area Program.

The chapters on resource-based activities and on habitat protection essentially "overlay" the first set of criteria, those for development in the Critical Area. That is, once identification of the three types of development areas is made by each local jurisdiction, the guidance of other activities (such as forestry), and the protection of special resources (such as anadromous fish spawning areas) will overlay these three areas and to some degree be affected by the kind of area in which each activity or resource is located.

It should be noted that each group of criteria is preceded by a set of Commission "policies" which were used to guide the development of those criteria, and which are included here as context or background that may provide a fuller understanding of each. For purposes of this regulation, the "policies" are to be considered part of the entire set of criteria for which the Commission is responsible under the Law.

Estimate of Economic Impact

I. Summary of Economic Impact.

These regulations will benefit the State by protecting the natural resources of the Chesapeake Bay and its tributaries by reducing the extent of detrimental impacts to the Bay that are caused by human activities. The quality of life for the citizens of Maryland is therefore enhanced through the restoration of the quality of the Bay's waters, the enhancement of Bay resources, and the protection of coastal habitats.

Economic loss to the State as a result of these proposed regulations is expected to be relatively insignificant, although particular sectors of the local economy may be negatively affected by these regulations. Unfortunately, data do not now exist to enable precise predictions about the economic impact of these regulations.

Local governments will realize fiscal impacts because they will be required to review, evaluate, and change land use and other policies in order to comply with these regulations. Public funds will be required to provide goods and services consistent with these regulations. This may require considerable staff time and public funds.

Various degrees of economic impact will result as a consequence of the regulatory actions proposed by the Commission. Economies that depend upon the Bay will ultimately be enhanced, including businesses that are located beyond the Critical Area, commercial and sport fisheries, marine trades and water recreation-oriented industries. For other components of the private sector, the degree of economic impact will depend on the constraints imposed by these criteria on particular sub-sectors of the economy and the availability of public or private programs to reduce economic impacts.

Forest Protection.

Forest protection criteria will result in costs to forest cultural operations on 5 acres or more by requiring the development and approval of forest management plans prior to harvesting. These costs are associated with private, professional services. Some forest management plans have already been developed by progressive landowners, and these may need to be modified to meet the specific requirements of the Commission's regulations. Implementation of a soil erosion control plan is an additional requirement of the Forest Protection criteria; however, the development of such a plan is already required by State law. Regulations that prohibit clearcutting within the 100-foot buffer may be an economic burden on that portion of the forest industry which depends on early successional tree species. This impact may be of some significance on a localized basis.

Land developers may incur costs as a result of these criteria because they will be required to re-establish forests and woodlands that are cleared during development in the Critical Area. These costs may only be applicable to the extent that clearing takes place, thus, such costs are currently indeterminable.

Agriculture.

Agriculture represents an important segment of the State's economy. Significant economic losses to farmers should not occur as a result of these regulations. Costs will be incurred as a result of the implementation of Best Management Practices, which requires the assistance of a technically trained soil conservation planner or soil technician. These costs may be offset by the State's Cost-Sharing Program which may assume up to 87.5 percent of the costs of Best Management Practices.

The full extent of any economic burden can only be determined when those Best Management Practices, that minimize impacts on water quality and other natural resources and that best integrate with the farming operation, are actually chosen by the farmer. It should be noted that Best Management Practices in the long run can result in significant cost-savings for farmers, since such practices generally increase the efficiency of nutrient applications, reduce soil loss, and improve other aspects of farm management.

The 25-foot naturally vegetated filter strip, if required for agricultural land in the Buffer, may impose some economic burdens on farmers who currently cultivate land within these areas. Economic losses should be slight, however, because the amount of land within 25 feet that is presently cultivated is small, and because it

could possibly be replaced by alternative Best Management Practices in the future. The somewhat reduced acreage is not expected to diminish the value of agricultural land, significantly diminish crop yields, or diminish the capacity of farmers to obtain loans based on the value of their land. The requirement that livestock grazing or feeding be kept back 25 feet from tidal waters or tributary streams will result in costs to some farmers because fencing may be necessary. It is not known with certainty at this time how many such farms will be affected, but perhaps 25 percent of an approximated 1,800 farms in the Critical Area include significant livestock operations.

Surface Mining Industry.

These proposed regulations will not adversely affect mining operations because such operations are already regulated under existing State law.

Development.

Management of growth in the Critical Area is essential in order to minimize the adverse effects of human disturbances to the Bay's natural resources. To achieve that objective, the Commission recognized three types of development areas:

1) Intensely Developed Areas,

2) Limited Development Areas, and

3) Resource Conservation Areas.

Future development proposed for the Critical Area will generally be directed to existing Intensely Developed Areas. A moderate amount of growth will occur in Limited Development Areas, but under strict requirements for environmental protection. Some development may occur in the Resource Conservation Areas, but preferably that which is directly related to, or compatible with, agricultural, forestry, and resource conservation activities. Despite the restricted development in Resource Conservation Areas, economic loss to State and local governments will be minimal since growth is permitted in areas that are already essentially urbanized. Industry that requires access to the water will be allowed to develop in the Critical Area. Other industries except as noted in COMAR 14.15.03 will be permitted in Intensely Developed Areas.

Reduced housing densities may create losses to the local tax base in areas where planned intensity will be decreased, but projected increases in land values and reduced needs for public infrastructure and services are likely to offset these losses. The value of land which has the potential for development, but is restricted by these regulations, may decrease under certain circumstances; however, this decrease may be due in part to speculative development pressures in a particular location. Data developed in other states relative to comparable conservation programs have shown that for land which is not presently suitable for development, the effect of these regulations should be negligible. In addition, such data suggest that overall land values in the most severely restricted and lowest density areas have actually increased rather than decreased.

New development may incur additional costs in providing and maintaining pervious surfaces and other measures to reduce runoff and provide habitat.

Habitat Protection.

These regulations require the protection of plant, fish and wild-life habitat. Such habitats include certain non-tidal wetlands; areas around anadromous fish spawning streams; rare, endangered and certain forested areas of high value for wildlife. A number of protection measures for these areas are suggested, such as cooperative agreements with private landowners, rezoning, and establishment of buffer areas around certain habitats where disturbance would be prohibited. Because protection measures will vary from site-to-site, it is not possible to estimate their economic impact. It is known that the identification and mapping of these areas will require additional staff time for local jurisdictions and some State agencies in the early stages of development of local programs. Impacts on the private sector are indeterminable.

II. Types of Economic Impacts.	Revenue (+) Expense (-)	Magnitude	
A. On issuing agency: 1. State Agency staff to develop criteria and evaluate/monitor local	(-)	\$750,000*	
programs for 3 years 2. Funding for local programs development for 3 years. B. On other State or local	(–)	\$2,300,000*	
agencies affected: 1. Cost share for development of local programs for 3 tears; local	(-)	\$750,000	
government 2. Department of Agriculture cost share programs for BMPs for 5 years	(-)	\$7,875,000	
3. Department of Natural Resources for 3 years	(-)	\$900,000	
	Benefit (+) Cost (-)	Magnitude	
C. On regulated industries or trade groups:			
Development and construction	(-)	Indeterminable, but possibly significant costs; includes implementing protection measures, i.e., pervious surfacing, erosion protection.	
2. Real estate 3. Seafood	(+) and (-) (+)	Indeterminable Increased productivity of the	
4. Marine 5. Maritime 6. Surface Mining	(+) and (-)	Chesapeake Bay Indeterminable Negligible Negligible	
7. Recreation	(+)	Increased use of the Bay and its tributaries	
8. Commercial Forestry	(-)	Indeterminable, but possibly significant in localized areas	
9. Aquaculture	(+)	Increased revenue, and auxillary benefits of expanded industry for State and local government. Magnitude indeterminable.	
10. Agriculture	(-)	Landowner's cost share for BMPs over five years: \$1,125,000	
D. On other industries or trade groups affected;		TITO JONEON PAJAROJOOO	
Improved public access E. Direct or indirect effects on the environment	(+) (+) and (-)	Indeterminable Indeterminable. Depends on	
protection measures. *This estimate represents the total cost of developing local programs as			

*This estimate represents the total cost of developing local programs as submitted by the affected jurisdictions before the development of these criteria. Estimates are subject to revision.

III. Assumptions.

A1. This is an estimated expenditure for three years during which the Commission will develop criteria, evaluate local programs, and conduct other Commission business.

A2. This represents the estimated State funds necessary to aid local jurisdictions in reviewing, evaluating, and modifying their local land-use programs to be consistent with these criteria.

B1. This is the estimated cost share for local jurisdictions associated with the activities described in A2 above.

B2. This is the estimated cost share of implementing Best Management Practices for 1,800 farms at an average of \$5,000 per farm. Cost share programs may assume up to 87.5 percent of this cost.

B3. This is the estimated cost of providing forest management plans for 50 percent of the total acreage assumed to be in commercial forest use, as well as the estimated cost of other services provided to the Commission and to local governments by other De-

partment of Natural Resources programs.

C1. Estimate of impact is indeterminable. Cost of development may be affected by prohibitions and standards regarding development in the Buffer, protection of wildlife and endangered species, and infrastructure improvements. Costs may be significant depending upon the type of development, location, intensity of development, and other factors.

C2. Economic impact could be positive or negative depending on

market dynamics.

C3. As a result of expected increases in productivity of the Bay,

the economic impact will be positive.

C4. The economic impact is expected to vary. The location of marinas will be restricted in some portions of the Critical Area, but this loss may be offset by increased boating and other activities on the Bay as a result of its restoration.

C5. The maritime industry is not expected to have to relocate

from areas where they are presently located.

C6. Estimated impact on mining industry is expected to be negligible because State policy and law regarding mine reclamation is already applicable to this industry.

C7. Recreational use of the Bay and its tributaries is likely to

increase with its restoration.

C8. Loss of commercial stands in the Critical Area is expected to be relatively insignificant. This assumption is based on the extent of commercial forest in the Critical Area and the fact that only 10 percent of commercial stands would be affected by the prohibition against clearcutting.

C9. This is assumed to be a positive impact because expanded industry may bring increased revenue to the State, local jurisdic-

tions, and the private sector.

Time

11:30 p.m.

June 27,1985, 7 p.m. until

Date

C10. Estimated cost of implementing Best Management Practices which must be borne by individual landowners represents 12.5 percent of total cost (See B2 above).

Opportunity for Public Comment

There will be six regional public hearings held with respect to receiving comments on these proposed regulations. The hearings are listed below; all written statements for the record must be submitted to the Commission by the date of the respective hearing. There will be no formal extension given for the record at each hearing. The hearings are set as follows:

Location

	11:30 p.m.	ditorium, Congress Ave., Havre de Grace, Md. for the Harford Co., Baltimore Co., and Balti- more City areas.
July 1, 1985,	7 p.m. until 11:30 p.m.	Prince George's Community College, Queen Anne Auditorium, Rt. 202, Largo, Md. for Prince George's Co., Anne Arundel Co., and Calvert Co. areas.
July 8, 1985.	7 n.m. until	Thomas Stone High School, Au-

Thomas Stone High School, Auditorium, Rt. 5, Waldorf, Md. for Charles Co., St. Mary's Co., and Calvert Co. areas.

Havre de Grace High School, Au-

July 11, 1985,	7 p.m. until 11:30 p.m.	Washington College, Gibson Fine Arts Center, Gibson Ave., Ches- tertown, Md., for Kent Co., Queen Anne's Co., and Cecil Co. areas.
July 15, 1985,	7 p.m. until 11:30 p.m.	Easton High School, Auditorium, Mecklenburg Avenue, Easton, Md. for Talbot Co., Dorchester Co., and Caroline Co. areas.
July 18, 1985,	7 p.m. until 11:30 p.m.	Wicomico Youth and Civic Center, Glen Avenue, Salisbury, Md. for Wicomico Co., Worcester Co., and Somerest Co. areas,

14.15.01 General Provisions

.01 Definitions

A. As used in this subtitle, the following terms have the meanings indicated.

B. Terms Defined.

(1) "Afforestation" means the establishment of a tree crop on an area from which it has always or very long been absent, or the planting of open areas which are not presently in forest cover.

(2) "Agriculture" means all methods of production and management of livestock, crops, vegetation, and soil. This includes, but is not limited to, the related activities of tillage, fertilization, pest control, harvesting, and marketing. It also includes, but is not limited to, the activities of feeding, housing, and maintaining of animals such as cattle, dairy cows, sheep, goats, hogs, horses, and poultry and handling their by-products.

(3) "Agriculture easement" means a non-possessory interest in land which restricts the conversion of use of the

land, preventing non-agricultural uses.

(4) "Anadromous fish" means fish that travel upstream (from their primary habitat in the ocean) to freshwaters in order to spawn.

(5) Aquaculture.

(a) "Aquaculture" means the farming or culturing of finfish, shellfish, other aquatic plants or animals or both, in lakes, streams, inlets, estuaries, and other natural or artificial water bodies or impoundments.

(b) Activities include the hatching, cultivating, planting, feeding, raising, and harvesting of aquatic plants and animals and the maintenance and construction of nec-

essary equipment, buildings, and growing areas.

(c) Cultivation methods include, but are not limited to, seed or larvae development and grow-out facilities, fish pens, shellfish rafts, racks and longlines, seaweed floats and the culture of clams and oysters on tidelands and subtidal areas. For the purpose of this definition, related activities such as wholesale and retail sales, processing and product storage facilities are not considered aquacultural practices.

(6) "Barren land" means unmanaged land having

sparse vegetation.

(7) "Best management practices (BMPs)" means conservation practices or systems of practices and management measures that control soil loss and reduce water quality degradation caused by nutrients, animal waste, toxics, and sediment. Agricultural BMPs include, but are not limited to, strip cropping, terracing, contour stripping, grass waterways, animal waste structures, ponds, minimal tillage, grass and naturally vegetated filter strips, and proper nutrient application measures.

(8) "Buffer" means a naturally vegetated area established or maintained to protect aquatic, wetland, shoreline, and terrestrial environments from man-made disturbances.

(9) "Clearcutting" means the removal of the entire stand of trees in one cutting with tree reproduction obtained by natural seeding from adjacent stands or from trees that were cut, from advanced regeneration or stump sprouts, or from planting of seeds or seedlings by man.

(10) "Cluster development" means a residential development in which dwelling units are concentrated in a selected area or selected areas of the development tract so as to provide natural habitat or other open space uses on the

remainder.

(11) "Colonial nesting water birds" means herons, egrets, and terns. For purposes of nesting, these birds congregate (that is, "colonize") in relatively few areas, at which time, the regional populations of these species are highly susceptible to local disturbances.

· (12) "Commission" means the Chesapeake Bay Critical

Area Commission.

(13) "Community piers" means boat docking facilities associated with subdivisions and similar residential areas, and with condominium, apartment, and other multiple-family dwelling units. Private piers are excluded from this definition.

(14) "Comprehensive or master plan" means a compilation of policy statements, goals, standards, maps, and pertinent data relative to the past, present, and future trends of the local jurisdiction including, but not limited to, its population, housing, economics, social patterns, land use, water resources and their use, transportation facilities, and public facilities, prepared by or for the planning board, agency, or office.

(15) "Conservation easement" means a non-possessory interest in land which restricts the manner in which the land may be developed in an effort to reserve natural re-

sources for future use.

(16) "Cover crop" means the establishment of a vegetative cover to protect soils from erosion and to restrict pollutants from entering the waterways. Cover crops can be dense, planted crops of grasses or legumes, or crop residues such as corn, wheat, or soybean stubble which maximize infiltration and prevent runoff from reaching erosive velocities.

(17) "Cultural operations" means an operation that would alter the existing composition or profile, or both, of a forest. It includes commercial harvesting and all commercial cutting operations done by companies and private individuals for economic gain.

(18) "Density" means the number of dwelling units per

acre within a defined and measurable area.

(19) "Developed woodlands" means those areas of 5000 square feet or more in size which predominantly contain trees and natural vegetation and which also include residential, commercial, or industrial structures and uses.

(20) "Development" means any activity that materially affects the condition or use of dry land, land under water,

or any structure.

(21) "Development activities" means human activities that result in disturbances to land in conjunction with residential, commercial, industrial, or institutional construction or alteration.

(22) "Disturbance" means any impacts to living re-

sources, landforms, or natural processes.

(23) "Documented breeding bird areas" means forested areas where the occurrence of interior dwelling birds, during the breeding season, has been demonstrated as a result

of on-site surveys using standard biological survey techniques.

(24) "Ecosystem" means a more or less self-contained biological community together with the physical environment in which the community's organisms occur.

(25) "Excess stormwater runoff" means all increases in

stormwater resulting from:

 (a) An increase in the imperviousness of the site, including all additions to buildings, roads and parking lots;

(b) Changes in permeability caused by compaction during construction or modifications in contours, including the filling or drainage of small depression areas:

(c) Alteration of drainageways, or regrading of slopes;

(d) Destruction of forest; or

(e) Installation of collection systems to intercept street flows or to replace swales or other drainageways.

(26) "Exemplary plant community" means any communities of plants which are considered, by the Maryland Natural Heritage Program, to be among the best Statewide examples of their kind, and designated by regulation by the Secretary of the Department of Natural Resources.

(27) "Forest" means a biological community dominated by trees and other woody plants covering a land area of 5 acres or more. This also includes forests that have been cut,

but not cleared.

(28) "Forest Interior Dwelling Birds" means species of birds which require relatively large forested tracts in order to breed successfully (for example, various species of flycatchers, warblers, vireos, and woodpeckers).

(29) "Forest management" means the protection, manipulation, and utilization of the forest to provide multiple benefits, such as timber harvesting, water transpiration,

wildlife habitat, etc.

(30) "Forest practice" means the alteration of the forest either through tree removal or replacement in order to improve the timber, wildlife, recreational, aesthetic, or water quality values.

(31) "Highly erodible soils" means those soils with a K value greater than .35 and with slopes greater than 15 per-

cent.

(32) "Historic waterfowl staging and concentration area" means an area of open water and adjacent marshes where waterfowl gather during migration and throughout the winter season. These areas are "historic" in the sense that their location is common knowledge and because these areas have been used regularly during recent times.

(33) "Hydric soils" means soils that are wet frequently enough to periodically produce anaerobic conditions, thereby influencing the species composition or growth, or both, of

plants on those soils.

(34) "Land-based aquaculture" means the raising of fish or shell fish in any natural or man-made enclosed or impounded water body.

(35) "Land clearing" means any activity that removes

the vegatative ground cover.

(36) "Landforms" means features of the earth's surface created by natural causes.

(37) "Marina" means any facility for the mooring, berthing, storing, or securing of watercraft, but not including community piers and other non-commercial boat docking and storage facilities.

(38) "Mean high water line" means the average level of

high tides at a given location.

(39) "Natural vegetation" means those plant communities that develop in the absence of human activities.

(40) "Nature-dominated" means a condition where landforms or biological communities, or both, have developed by natural processes in the absence of human intervention.

(41) "Natural features" means components and processes present in or produced by nature, including, but not limited to, soil types, geology, slopes, vegetation, surface water, drainage patterns, aquifers, recharge areas, climate, flood

plains, aquatic life, and wildlife.

(42) "Non-point source pollution" means pollution generated by diffuse land use activities rather than from an identifiable or discrete facility. It is conveyed to waterways through natural processes, such as rainfall, storm runoff, or groundwater seepage rather than by deliverate discharge. Non-point source pollution is not generally corrected by "end-of-pipe" treatment, but rather, by changes in land management practices.

(43) "Non-renewable resources" means resources that

are not naturally regenerated or renewed.

- (44) "Non-tidal wetlands" means those lands in the Critical Area where the water table is usually at or near the surface, or lands where the soil or substrate is covered by shallow water at some time during the growing season, and which are usually characterized by one or both of the following:
- (a) At least periodically, the lands support predominantly hydrophytic vegetation;
- (b) The substrate is predominantly undrained hydric soils.
- (45) "Offsets" means structures or actions that compensate for undesirable impacts.

(46) "Open space" means land and water areas re-

tained in an essentially undeveloped state.

(47) "Overburden" means the strata or material in its natural state, before its removal by surface mining, overlying a mineral deposit, or in between mineral deposits.

(48) "Physiographic features" means the soils, topography, land slope and aspect, and local climate that influence the form and species composition of plant communities.

(49) "Private harvesting" means the cutting and re-

moval of trees for personal use.

(50) "Public water-oriented recreation" means shore-dependent recreation facilities or activities provided by public agencies which are available to the general public.

- (51) "Reclamation" means the reasonable rehabilitation of disturbed land for useful purposes, and the protection of the natural resources of adjacent areas, including waterbodies.
- (52) "Redevelopment" means the process of developing land which is or has been developed.
- (53) "Reforestation" means the establishment of a forest through artificial reproduction or natural regeneration.
- (54) "Renewable resource" means a resource that can renew or replace itself and, therefore, with proper management, can be harvested indefinitely.
- (55) "Riparian habitat" means a habitat that is strongly influenced by water and which occurs adjacent to streams, shorelines, and wetlands.
- (56) "Selection" means the removal of single, scattered, mature trees or other trees from uneven-aged stands by frequent and periodic cutting operations.

(57) "Spoil pile" means the overburden and reject materials as piled or deposited during surface mining.

(58) "Soil Conservation and Water Quality Plans" means land-use plans for farms that show farmers how to make the best possible use of their soil and water resources

while protecting and conserving those resources for the future. It is a document containing a map and related plans that indicate:

- (a) How the landowner plans to treat a farm unit;
- (b) Which best management practices the landowner plans to install to treat undesirable conditions; and
- (c) The schedule for applying those best management practices.
- (59) "Steep slopes" means slopes of 15 percent or greater incline.
- (60) "Thinning" means a forest practice used to accelerate tree growth in quality trees in the shortest interval of time
- (61) "Topography" means the existing configuration of the earth's surface including the relative relief, elevation, and position of land features.
- (62) "Transitional habitat" means a plant community whose species are adapted to the diverse and varying environmental conditions that occur along the boundary that separates aquatic and terrestrial areas.

(63) "Transportation facilities" means anything that is built, installed, or established to provide a means of travel

from one place to another.

(64) "Utility transmission facilities" means fixed structures that convey or distribute resources or wastes, or both, including, but not limited to, electric lines, water conduits, and sewer lines.

(65) "Wash plant" means a facility where sand and

gravel is washed during processing.

(66) "Water-based aquaculture" means the raising of fish and shellfish in any natural, open, free-flowing water body.

(67) "Water-use industry" means an industry that requires location near the shoreline because they utilize sur-

face waters for cooling or other internal purposes.

(68) "Waterfowl" means birds which frequent and often swim in water, nest and raise their young near water, and derive at least part of their food from aquatic plants and animals.

(59) "Wildlife corridor" means a strip of land having vegetation that provides habitat and a safe passageway for wildlife.

.02 Explanation of Certain Terms.

Every provision of this subtitle constitutes part of the "criteria for program development" within the meaning and intent of Natural Resources Article, \$8-1808(d), whether that provision is termed a "definition", "general policy", "policy", or "criteria".

14.15.02 Development in the Critical Area

.01 Introduction.

The Commission is charged with the development of criteria that will accommodate growth, and also provide for the conservation of habitat and the protection of water quality in the Critical Area. In this chapter, criteria are proposed for directing, managing, and controlling development (e.g., residential, commercial, industrial and related facilities) so that the adverse impacts of growth in the Critical Area are minimized. These criteria are based on the general policies found in Regulation .02.

.02 General Policies.

A. In order to recognize already existing development patterns in the Critical Area, the Commission recognizes these three types of development areas:

(1) Intensely Developed Areas;

(2) Limited Development Areas; and

(3) Resource Conservation Areas.

B. Within each jurisdiction, intense development should be directed outside the Critical Area. Future development activities, when proposed in the Critical Area, shall be directed towards the Intensely Developed Areas.

C. Additional low intensity development may be permitted in the Limited Development Areas, but shall be subject to strict regulation to prevent adverse impacts on habitat

and water quality.

D. Development shall be limited in the Resource Conservation Area, which shall be chiefly designated for agriculture, forestry, other resource utilization activities and for habitat protection.

E. Local jurisdictions shall identify each of the three areas within their jurisdiction based on the criteria to follow, and develop policies and programs to achieve the objectives

as proposed by the Commission.

F. Certain development activities or facilities, because of their intrinsic nature, or because of their potential for adversely affecting habitats or water quality, may not be permitted in the Critical Area except in Intensely Developed Areas under Regulation .03 of this chapter, and only after the activity or facility has demonstrated to all appropriate local and State permitting agencies that there will be a net improvement in water quality to the adjacent body of water. These activities include, but are not limited to, the following:

(1) Non-maritime heavy industry;

(2) Transportation facilities and utility transmission facilities, except those necessary to serve permitted uses, or where regional or interstate facilities must cross tidal waters (Utility transmission facilities do not include power plants); or

(3) Sludge handling, storage, and disposal facilities.

G. Certain development activities or facilities, because of their intrinsic nature, or because of their potential for adversely affecting habitat and water quality, may not be permitted in the Critical Area. These include:

(1) Solid or hazardous waste collection or disposal facilities; or

(2) Sanitary landfills.

H. Existing, permitted facilities of the type noted in §G(1) and (2), above, or expansion of these facilities, shall be subject to the standards and requirements of the Maryland Department of Health and Mental Hygiene, under COMAR Title 10.

.03 Intensely Developed Areas.

- A. Intensely Developed Areas are those areas where residential, commercial, and/or industrial land uses predominate, and where relatively little natural habitat occurs. These areas shall have at least one of the following features:
- (1) Housing density is greater than four dwelling units per acre;

(2) Average lot width per house is 100 feet or less;

- (3) Average shoreline length per lot is 100 feet or less;
- (4) Public sewer and water collection and distribution systems are currently serving the area; or

(5) Industrial or commercial uses are concentrated in the area.

B. In addition, these features shall be concentrated in an area of at least 20 contiguous acres, or that entire portion of the Critical Area within the boundary of a municipality, whichever is less.

- C. In developing their Critical Area Programs, local jurisdictions shall follow these policies when addressing Intensely Developed Areas:
- (1) Improve the quality of run-off from developed areas that enters the Chesapeake Bay or its tributary streams;

(2) Accommodate additional development provided that water quality is not impaired;

(3) Minimize the expansion of Intensely Developed Areas into portions of the Critical Area designated as Habitat Protection Areas under COMAR 14.15.09 and Resource Conservation Areas under Regulation .05 of this chapter;

(4) Conserve and enhance fish, wildlife, and plant habitats, to the extent possible, within Intensely Developed Ar-

eas;

(5) Encourage the use of retrofitting measures to address existing stormwater management problems; and

(6) Map and define Intensely Developed Areas, where local jurisdictions may provide for future growth and development beyond existing development as defined in this

chapter by one of the following:

- (a) Designating an appropriate amount of area to be used for future additional intense development which in all jurisdictions except Baltimore and Anne Arundel Counties and Baltimore City may be up to 100 percent of the amount of existing Intensely Developed Areas. For Anne Arundel and Baltimore Counties and Baltimore City, the amount of future additional Intensely Developed Area may not exceed an amount determined by the Commission to be consistent with the goals of these criteria. The jurisdiction may choose to designate some part of the future Intensely Developed Area in a Limited Development Area not adjacent to the existing Intensely Developed Area.
- (b) Designating up to 5 percent of the total Limited Development Area in Regulation .04 of this chapter as one

or more Intensely Developed Areas, if:

(i) The Intensely Developed Areas do not exceed the larger of \$C(6)(a) or (b), above; and in Baltimore City, Baltimore County, and Anne Arundel County, do not exceed the lesser of the above;

(ii) The designated areas are concentrated as much as allowed by physiographic features within the full depth of the Critical Area to minimize sprawl along the shoreline, prevent the elimination of valuable habitat, and create the greatest opportunity for water quality improvement consistent with the criteria.

D. In developing their Critical Area Programs, local jurisdictions shall use the following criteria for Intensely Developed Areas:

(1) Development and redevelopment shall be subject to the Habitat Protection Area criteria prescribed in **COMAR** 14.15.09.

(2) Stormwater.

(a) The local jurisdiction shall require, at the time of development or redevelopment, technologies as required by applicable State and local ordinances to minimize adverse impacts to water quality cause by stormwater.

(b) In the case of redevelopment, if these technologies do not reduce pollutant loadings by at least 10 percent below the level of pollution on the site prior to redevelopment,

then offsets shall be provided.

(c) In the case of new development, offsets as determined by the local jurisdiction shall be used to reduce pollutant loadings by at least 10 percent of the predevelopment levels

(d) Offsets may be provided either on or off site, provided that water quality benefits are equivalent, that their benefits are obtained within the same watershed, and that

the benefits can be determined through the use of modelling, monitoring, or other computation of mitigation measures.

(3) If practicable, permeable areas shall established in vegetation, and whenever possible, redevelopment shall re-

duce existing levels of pollution.

(4) Areas of public access to the shoreline, such as foot paths, scenic drives, and other public recreational facilities, should be maintained and, if possible, encouraged to be established within Intensely Developed Areas.

(5) Ports and industries which use water for transportation and derive economic benefits from shore access, shall

be located near existing port facilities.

- (6) Local jurisdictions shall be encouraged to establish, with assistance from the State, programs for the enhancement of biological resources within the Critical Area for their positive effects on water quality and urban wildlife habitat. These programs may include urban forestry, land-scaping, gardens, wetland, and aquatic habitat restoration elements.
- (7) To the extent practicable, future development shall use cluster development as a means to reduce impervious areas and to maximize areas of natural vegetation.
- (8) Local jurisdictions shall develop a strategy to reduce the impacts on water quality that are generated by existing development. This shall include assessment of water quality and biological resource impacts prompted by community redevelopment plans and programs.

(9) When the cutting or clearing of trees in forests and developed woodland areas is associated with current or planned development activities, the following shall be

required:

(a) Establishment of programs for the enhancement of forest and developed woodland resources such as programs for urban forestry (for example, street tree plantings, gardens, landscaping, open land buffer plantings);

(b) Establishment by regulation that development activities shall be designed and implemented to minimize de-

struction of forest and woodland vegetation; and

(c) Protection for existing forests and developed woodlands identified as Habitat Protection Areas in COMAR 14.15.09.

.04 Limited Development Areas.

A. Limited Development Areas are those areas which are currently developed in low or moderate intensity uses. They also contain areas of natural plant and animal habitats, and the quality of run-off from these areas has not been substantially altered or impaired. These areas have at least one of the following features:

(1) Housing density ranging from one unit per 5 acres

up to and including four units per acre; or

(2) Areas not dominated by agriculture, wetland, forest,

barren land, surface water, or open space.

- B. In developing their Critical Area Programs, local jurisdictions shall follow these policies when addressing Limited Development Areas:
- Maintain, or if possible, improve the quality of runoff entering the Chesapeake Bay and its tributaries;
- (2) Maintain, to the extent practicable, existing areas of natural habitat; and
- (3) Accommodate additional low or moderate intensity development if:

(a) This development conforms to the water quality and habitat protection criteria in §C, below; and

(b) The overall intensity of development within the Limited Development Area is not increased beyond the level established in a particular area so as to change its prevailing character as identified by density and land use currently established in the area.

C. In developing their Critical Area Programs, local jurisdictions shall use all of the following criteria for Limit-

ed Development Areas:

(1) For all development activities in the Limited Development Areas, the jurisdiction shall require that the developer identify any environmental or natural feature described in this section and shall meet all of the following standards of environmental protection:

(a) Criteria as provided for in the Habitat Protection Areas in COMAR 14.15.09, and those in the Water-Depen-

dent Uses in COMAR 14.15.03.

- (b) All roads, bridges, and utilities that must cross a Habitat Protection Area shall be located, designed, constructed, and maintained so as to provide maximum erosion protection and minimize negative impacts to wildlife, aquatic life and their habitats and maintain hydrologic processes and water quality. Roads, bridges, or utilities may not be located in any Habitat Protection Area unless no feasible alternative exists.
- (c) All development activities that must cross or affect streams shall be designed to:
- (i) Reduce increases in flood frequency and severity that are attributable to development;
- (ii) Retain tree canopy so as to maintain stream water temperature within normal variation;
- (iii) Provide a natural substrate for streambeds; and
- (iv) Minimize adverse water quality and quantity impacts of stormwater.
- (d) All development sites shall incorporate a wildlife corridor system through conservative easements, restrictive covenants, or similar instruments that will provide continuity of wildlife and plant habitats with offsite habitats.
- (2) For the cutting or clearing of trees in forests and developed woodland areas which are associated with current or planned development activities in the Limited Development Area, all jurisdictions shall:
- (a) Require that the developer consider the recommendations of the Maryland Forest, Park and Wildlife Service when planning development on forested lands;
- (b) Provide regulations that development activities be designed and implemented to minimize destruction of woodland vegetation; and
- (c) Provide protection for forests and developed woodlands identified as Habitat Protection Areas in **COMAR** 14.15.09.
- (3) For the alteration of forest and developed woodland in the Limited Development Area, the jurisdiction shall apply all of the following criteria:
- (a) The total acreage in forest coverage within a jurisdiction in the Critical Area shall be maintained or, preferably, increased.
- (b) All forests that are allowed to be cleared or developed shall be replaced in the Critical Area on not less than an equal area basis.
- (c) That no more than 20 percent of any forest or developed woodland may be removed from forest use, except as provided in \$C(4), below. The remaining 80 percent shall be maintained through restrictive covenants or similar instruments.
- (d) Developed woodland vegetation shall be conserved to the greatest extent practicable.

(4) For replacement of forest and developed woodland, if more than 20 percent is removed from forest use, the following formula shall apply: A developer may clear or develop more forest than otherwise permitted to be disturbed, if the total forest area removed from forest use is not increased by more than 50 percent of the area permitted to be disturbed in SC(3)(c) above, provided that the afforested area shall consist of 1.5 times the total surface acreage of the forest or developed woodland area, or both, disturbed.

(5) In addition, local jurisdictions shall adhere to the following criteria for forest and woodland development:

(a) Local programs shall make provision for surety in an amount suitable to assure satisfactory replacement as required by \$C(4), above;

(b) Grading permits shall be required before forest or

developed woodland is cleared;

(c) Forests which have been cleared before obtaining a grading permit, or that exceed the maximum area allowed in §C(4) shall be replanted at three times the areal

extent of the cleared forest;

(d) If the areal extent of the site limits the application of \$C(3), C(4), and C(5)(c), above, alternative provisions or reforestation guidelines may be developed, if they are consistent with the intent of **COMAR 14.15.05** to conserve the forest and developed woodland resources of the Critical Area;

(e) If no forest is established on proposed development sites, these sites shall be planted to provide a forest or

developed woodland cover of at least 15 percent;

(f) That all forests designated on development plans shall be maintained to the extent practicable, through conservation easements, restrictive covenants, or other protective instruments;

(g) The developer shall designate, subject to the approval of the local jurisdiction, a new forest area on a part

of the site not forested; and

(h) The afforested area shall be maintained as forest cover through easements, restrictive covenants, or other protective instruments.

- (6) Development on slopes greater than 15 percent, as measured before development, shall be prohibited unless the project can be shown to increase the stability of the slope.
 - (7) For stormwater run-off:

(a) Man-caused impervious areas shall be limited to

15 percent of the site; and

- (b) Local jurisdictions may allow for variances in road standards where a reduced standard does not significantly affect safety and reduces potential impacts to the site and Critical Area resources.
- (8) To reduce the extent of impervious areas and maximize areas of natural vegetation, cluster development shall be considered when planning for future development.
- D. In developing their Critical Area Programs, the local jurisdictions shall refer to all of the following complementary existing State laws and regulations:

(1) For soil erosion and sediment control (COMAR

08.05.01):

(a) In order to prevent soil erosion and sedimentation, a Soil Erosion and Sedimentaton Control Plan shall be required whenever a development within the Critical Area will involve any clearing, grading, transporting, or other form of disturbance to land by the movement of earth. This plan shall be consistent with the requirements of Natural Resource Article, §§8-1101 through 8-1108, Annotated Code of Maryland, and local ordinances. Sediment control practices shall be appropriately designed to reduce adverse water quality impact.

(b) Jurisdictions shall require erosion control as the basis of sediment control plans within the Critical Area.

(2) For stormwater run-off (COMAR 08.05.05):

(a) Limitation on Stormwater Run-off. Development may not cause downstream property, watercourses, channels, or conduits to receive stormwater run-off at a higher volume or rate than would have resulted from the same storm event were the land in its natural, undeveloped state.

(b) Storage Capacity. All stormwater storage facilities shall be designed with sufficient capacity to achieve water quality goals and to accommodate all run-off caused by the development in excess of that which would have come from the site if it had been left in its natural, undeveloped condition.

(c) Each development shall provide for the on-site or off-site detention or retention of excess stormwater, or provide infiltration measures that reduce run-off resulting from that development within the Limited Development Area.

(d) Stormwater management measures shall be consistent with the requirements of Natural Resources Article,

§8-11A-01 et seq., Annotated Code of Maryland.

.05 Resource Conservation Areas.

A. Resource Conservation Areas are those areas characterized by nature-dominated environments (that is, wetlands, forests, abandoned fields) and resource-utilization activities (that is, agriculture, forestry, aquaculture), and having at least one of the following features:

(1) Density is less than one dwelling unit per 5 acres;

(2) No public sewer or water system; or

(3) Dominant land use is in agriculture, wetland, for-

est, barren land, surface water, or open space.

B. In developing their Critical Area Programs, local jurisdictions shall follow these policies when addressing Resource Conservation Areas:

(1) Conserve, protect, and enhance the overall ecological values of the Critical Area, including its large forested areas, its biological heritage, productivity, and diversity;

(2) Provide adequate breeding, feeding, and wintering habitats for those wildlife populations that require the Chesapeake Bay, its tributaries, or coastal habitats in order to sustain populations of those species;

(3) Conserve the land and water resource base that is necessary to maintain and support land uses such as agri-

culture, forestry, and aquaculture; and

(4) Conserve the existing developed woodlands and forests for the water quality benefits that they provide.

C. In developing their Critical Area Programs, local jurisdictions shall use all of the following criteria for Resource Conservation Areas:

(1) Land use management practices shall be consistent with the policies and criteria for Habitat Protection Areas in COMAR 14.15.09, the policies and criteria for Agriculture in COMAR 14.15.06, and the policies and criteria on Forestry COMAR 14.15.05.

(2) Agriculture and conservation easements shall be

promoted in Resource Conservation Areas.

(3) Local jurisdictions are encouraged to develop tax or other incentive/disincentive programs to promote the continuation of agriculture, forestry, and natural habitats in Resource Conservation Areas.

(4) Residential uses within the Resource Conservation Area may not exceed a density of one dwelling unit per 20 acres. Local jurisdictions are encouraged to consider such mechanisms as cluster development, transfer of development rights, maximum lot size provisions, and/or additional means to maintain the land area necessary to support the preferred uses.

(5) Development that directly supports agriculture, forestry, aquaculture, or residential development not exceeding the density specified in SC(4), above, shall be allowed in Re-

source Conservation Areas.

(6) Local jurisdictions shall develop a program to assure that the overall acreage of forest and woodland within their Resource Conservation Areas does not decrease.

(7) Development activity within the Resource Conservation Area shall be consistent with the criteria for Limited Development Areas in Regulation .04.

14.15.03 Water Dependent Facilities

.01 Definition.

A. "Water-dependent facilities" means those structures or works associated with industrial, maritime, recreational, educational, or fisheries activities that require location at or near the shoreline within the Buffer specified in COMAR 14.15.09.

B. An activity is water-dependent if it cannot exist outside the Buffer and is dependent on the water by reason of the intrinsic nature of its operation. These activities include, but are not limited to, ports, water-use industries, marinas and other boat docking structures, public beaches and other public water-oriented recreation areas, and certain fisheries and aquaculture operations.

C. Excluded from this definition are individual private piers installed or maintained by riparian landowners, and which are not part of a subdivision which provides commu-

nity piers (see Regulation 07D, below).

.02 Policies.

In developing their Critical Area Programs, local jurisdictions shall follow these policies when addressing waterdependent facilities:

A. Limit development activities in the Buffer to those

that are water-dependent; and

B. Provide by design and locational criteria, that such activities will have minimal individual and cumulative impact on water quality and fish, wildlife, and plant habitat in the Critical Area.

.03 General Criteria.

In developing their Critical Area Programs, local jurisdictions shall follow these criteria when addressing water-dependent facilities:

A. New or expanded development activities may be permitted in the Buffer in Intensely Developed and Limited Development Areas provided that it can be shown:

(1) That they are water-dependent;

(2) That the project meets a recognized private right or public need;

(3) That adverse effects on water quality, and fish,

plant, and wildlife habitat are minimized;

(4) That, in so far as possible, non-water-dependent structures or operations associated with water-dependent projects or activities are located outside the Buffer; and

(5) That the facilities are consistent with an approved

local plan as set forth below.

B. Except as otherwise provided in this regulation, new or expanded development activities may not be permitted in those portions of the Buffer which occur in Resource Conservation Areas.

.04 Local Plan Requirements for Water-Dependent Facilities.

A. Local jurisdictions shall develop a plan and associated policies and implementation programs for approving areas suitable for new or expanded water-dependent facilities in accordance with Regulation .03, above, and others in this regulation. The plans and programs should include the re-evaluation of areas currently zoned or approved for these facilities to determine if current policies are consistent with the Critical Area Programs.

B. The plan shall specify a process which utilizes the following guidance in approving areas suitable for water-de-

pendent activities:

(1) That the activities will not significantly alter existing water circulation patterns or salinity regimens;

(2) That the water body upon which these activities are proposed has adequate flushing characteristics at the site;

(3) That disturbance to wetlands, submerged aquatic plant beds, or other areas of important aquatic habitats will be minimized;

(4) That adverse impacts to water quality that may occur as a result of these activities, such as non-point source run-off, sewage discharge from land activities or vessels, or from boat cleaning and maintenance operations, is minimized:

(5) That shellfish beds will not be disturbed or be made subject to discharge that will render them unsuitable for

harvesting;

(6) That dredging shall be conducted in a manner, and using a method, which causes the least disturbance to water quality and aquatic and terrestrial habitats in the area immediately surrounding the dredging operation or within the Critical Area, generally;

(7) That dredged spoil, except for clean sand for beach nourishment, will not be placed within the Buffer or elsewhere in that portion of the Critical Area which has been

designated as a Habitat Protection Area; and

(8) That interference with the natural transport of sand will be minimized.

.05 Industrial and Port-Related Water-Dependent Facilities.

New, expanded, or redeveloped industrial or port-related facilities and the replacement of these facilities may be permitted only in those portions of Intensely Developed Areas exempted from Buffer designation in COMAR 14.15.09 and are subject to the requirements set forth in Regulation .03A, above.

.06 Marinas and Other Water-Dependent Maritime Facilities.

A. New or expanded marinas and related facilities may be permitted in the Buffer within Intensely Developed Areas and Limited Development Areas subject to the requirements of Regulation .03A above.

B. New or expanded marinas or related maritime facilities may not be permitted in the Buffer within Resource Conservation Areas, except as provided in Regulation .08,

below.

.07 Community Piers and Other Related Non-Commercial Boat Docking and Storage Facilities.

A. New or expanded community piers and other non-commercial boat docking and storage facilities may be permitted in the Buffer in Intensely Developed Areas subject to the requirements of Regulation .03A, above.

B. These facilities are permitted in the Buffer in Resource Conservation Areas at a slip density not to exceed 1.5

times the number of buildable lots allowable in the Critical Area

- C. These facilities may be permitted in the Buffer in Limited Development Areas subject to the requirements of Regulation .03A, above, and further provided that these facilities:
- (1) Are associated with a residential development approved for the Limited Development Area;

(2) Are consistent with all criteria and local regulations for these areas; and

(3) Disturbance in the Buffer is the minimum necessary to provide a single point of access to the facilities.

D. If community piers are provided as part of a development, private piers in the developments may not be allowed.

.08 Public Beaches and Other Public Water-Oriented Recreation or Education Areas.

A. Public beaches or other public water-oriented recreation or education areas including, but not limited to, publicly owned boat launching and docking facilities and fishing piers may be permitted in the Buffer in Intensely Developed Areas.

B. These facilities may be permitted within the Buffer in Limited Development Areas and Resource Conservation Ar-

eas provided that:

(1) Adequate sanitary facilities exist;

(2) Service facilities are, to the extent possible, located outside the Buffer;

(3) Permeable surfaces are used to the extent practicable, if no degradation of groundwater would result;

(4) Disturbance to natural vegetation is minimized; and

(5) Areas for passive recreation, such as nature study, hunting, trapping and for education, may be permitted in the Buffer within Resource Conservation Areas, if service facilities for these uses are located outside of the Buffer.

.09 Research Areas.

Water-dependent research facilities or activities operated by State, or federal or local agencies or educational institutions may be permitted in the Buffer, if non-water-dependent structures or facilities associated with these projects are, to the extent possible, located outside of the Buffer.

.10 Fisheries Activities.

A. Lands and water areas with high aquacultural potential should be identified by the local jurisdictions in cooperation with the State. These areas are encouraged for that use and if so used, should be protected from degradation by other types of land and water use or by adjacent land and water uses.

B. Commercial water-dependent fisheries facilities including structures for crab shedding, fish off-loading docks, shellfish culture operations, and shore-based facilities necessary for aquaculture operations, may be permitted in the Buffer, subject to the requirements of Regulation .03, above.

14.15.04 Shore Erosion Protection Works

.01 Definition.

A. "Shore erosion protection works" means those structures or measures constructed or installed to prevent or minimize erosion of the shoreline in the Critical Area.

B. The criteria below are not intended to apply to those structures necessarily associated with water-dependent facilities in COMAR 14.15.03.

.02 Policies.

In developing their Critical Area Programs, local jurisdictions shall follow these policies in regard to shore erosion protection works:

A. Encourage the protection of rapidly eroding portions

of the shoreline in the Critical Area;

B. Encourage, where appropriate, the use of non-structural shore protection measures in order to conserve and pro-

tect plant, fish, and wildlife habitat; and

C. Discourage the use of bulkheads or other vertical erosion control structures, except where it can be shown that alternative methods would be ineffective or impractical in reducing or preventing shoreline erosion.

.03 Criteria.

In developing their Critical Area Programs, local jurisdictions shall use these criteria:

- A. Local jurisdictions, with assistance from the State, shall designate and map the following shoreline areas:
- (1) Shoreline areas where no significant shore erosion occurs.
- (2) Other eroding areas where non-structural measures would be a practical and effective method of erosion control, and
- (3) Eroding areas where only structural measures would provide effective and practical erosion control;

B. Local jurisdictions shall adopt policies and programs to accomplish the following objectives:

(1) Provide that structural control measures can only be used in areas designated in §A, above, where non-structural control measures would be impractical or ineffective,

(2) Provide that where structural erosion control is required, rip-rap shall be utilized wherever this measure is

practical and effective,

(3) Provide that non-structural measures be utilized in all other areas of significant erosion as shown in §A(2), above, and

(4) Provide that structural erosion measures not be permitted in areas where no significant erosion occurs;

C. Local policies and programs shall be submitted to the Commission for approval.

14.15.05 Forest and Woodland Protection

.01 Definitions.

A. "Forests" means biological communities dominated by trees and other woody plants covering a land area of five or more acres.

B. "Developed woodlands" means those areas of 5000 square feet or more in size which predominantly contain trees and natural vegetation and which also include residential, commercial, or industrial structures and uses.

.02 Policies.

In developing their Critical Area Programs, local jurisdictions shall follow these policies in regard to forest and woodland protection:

A. Maintain and increase the natural vegetation of the

Critical Area;

B. Conserve forests and developed woodlands to the extent possible and provide, through incentives, expansion of forested areas;

C. Provide that the removal of trees associated with development activities shall be minimized and, where appropriate, shall be mitigated; and

D. Provide that forests be managed in such a manner so that maximum values for wildlife, water quality, timber and recreation and other resources can be maintained, recognizing that, in some cases, these uses may be mutually exclusive.

.03 Criteria.

In developing their Critical Area Programs, local juris-

dictions shall use the following criteria:

A. Local jurisdictions shall develop a Forest Preservation Plan as part of their Critical Area Program. These plans are to be developed in cooperation with the Maryland Forest, Park and Wildlife Service and other appropriate agencies, and submitted to the Commission for approval.

B. Each Forest Preservation Plan shall consist of the fol-

lowing:

- (1) Identification and mapping or otherwise designating forests and developed woodland occurring within the Critical Area;
- (2) Identification of those forest areas and developed woodlands which include Habitat Protection Areas in COMAR 14.15.09; and

(3) Policies and programs to provide incentives for the conversion of other land uses to forested conditions.

C. Local policies and programs for tree cultural operations in the Critical Area shall adhere to all of the following:

(1) The cutting of trees, where permitted within the Critical Area, shall be done according to an approved For-

est Management Plan.

- (2) A Forest Management Plan shall be required for all tree cultural operations of five contiguous acres or more in forests in the Critical Area. The plans shall be reviewed and approved by the Maryland Forest, Park and Wildlife Service through the District Forestry Boards, and filed with an appropriate designated agency within their local jurisdiction. Plans shall identify whether the activities will disturb or affect Habitat Protection Areas as identified in **COMAR 14.15.09**, and incorporate protection measures for these areas as specified by the local jurisdictions or the Commission.
- (3) A Sediment Control Plan shall be required for all harvests in the Critical Area, including harvesting on agricultural lands. This plan shall be developed according to the State guidelines entitled: "Standard Erosion and Sediment Control Plan for Forest Harvest Operations." The operations shall be implemented in accordance with specifications set out by the Maryland Forest, Park and Wildlife Service.
- (4) The cutting or clearing of trees within the 100-foot Buffer, as described in COMAR 14.15.09, shall be prohibited except that:

(a) Individual trees which are proximate to anadromous fish streams and in danger of falling may be removed

to prevent the blockage of the streams;

- (b) Trees may be cut or removed in accordance with the criteria for Water-Dependent Facilities in COMAR 14.15.03 and Shore Erosion Protection Measures in COMAR 14.15.04;
- (c) Selection may be allowed where it can be shown that the water transpiration and the habitat value of the stand would be thereby enhanced; or
- (d) Other cutting techniques may be undertaken within the Buffer and under the advice and guidance of the Departments of Agriculture and Natural Resources, if necessary to preserve the forest from extensive pest or disease infestation or threat from fire.

14.15.06 Agriculture

.01 Definition.

"Agriculture" means all methods of production and management of livestock, crops, vegetation, and soil. This includes, but is not limited to, the related activities of tillage, fertilization, pest control, harvesting, and marketing. It also includes, but is not limited to, the activities of feeding, housing, and maintaining of animals such as cattle, dairy cows, sheep, goats, hogs, horses, and poultry and handling their by-products.

.02 Policies

In developing their Critical Area Programs, local jurisdictions shall follow all of these policies when addressing

A. Assure that agricultural lands are identified and that programs are established for the Critical Area to maintain, where appropriate, agricultural lands in agricultural use, to the greatest extent possible.

B. Recognize that agriculture is a preferred land use that should be properly managed so that it minimizes its contribution to pollutant loadings to the Bay and its tributaries.

C. Assure that the creation of new agricultural lands is

not accomplished:

(1) By diking, draining, or filling of any class or subclass of palustrine wetlands, as classified in the National Wetlands Survey, which have a seasonally flooded or wetter water regime, unless mitigation as provided for in COMAR 14.15.09.02 of these regulations is accomplished;

(2) By clearing of forests or woodland on soils with a "K" value greater than .35 or slope greater than 15 percent

(3) If the clearing will adversely affect water quality or will destroy plant and wildlife habitat as defined in COMAR 14. 15.09 of these regulations.

D. Assure that the drainage of tidal and non-tidal wetlands for the purpose of agriculture be done in accordance $with\ a\ Soil\ Conservation\ and\ Water\ Quality\ Plan,\ approved$ by the local Soil Conservation District and consistent with Natural Resources Article, §8-1103, Annotated Code of Maryland.

E. Encourage, through public information, that applicators of pesticides follow all labeling instructions so that the impact to water quality and plant, fish, and wildlife habitat is minimized.

- F. Assure that Best Management Practices for the control of nutrients, animal wastes, pesticides, and sediment runoff be used to protect the productivity of the land base and enhance water quality. These practices shall minimize contamination of surface and groundwater and, further, shall minimize adverse effects on plant, fish, and wildlife re-
- G. Assure that animal feeding operations, including retention and storage ponds, feed lot waste storage, and manure storage minimize the contamination of water bod-
- H. Assure that agricultural activity permitted within the Critical Area use Best Management Practices in accordance with a Soil Conservation and Water Quality Plan approved by the local Soil Conservation District.

.03 Criteria.

A. In developing their Critical Area Programs, local jurisdictions shall use the following criteria for agriculture:

(1) Local jurisdictions shall develop an Agricultural Protection Plan as part of their Critical Area Program if the land use exists in the jurisdiction. These plans are to be developed in cooperation with the Soil Conservation Districts, the County Agricultural Land Preservation Advisory Boards, and other appropriate agencies.

(2) Each agricultural plan shall consist of the follow-

ing:

(a) An identification, inventory, and mapping of agricultural lands occurring within the Critical Area;

- (b) An identification of agricultural lands which include Habitat Protection Areas defined in **COMAR** 14.15.09:
- (c) Policies and programs for maintaining the agricultural land in agricultural use which shall include at a minimum:
- (i) The incorporation of the agricultural components of the State 208 Water Quality Plan into local water quality plans if any exist,

(ii) Development of measures for encouraging the

preservation of agricultural land, and

- (iii) Provisions for the protection of Habitat Protection Areas within agricultural lands as required in COMAR 14,15.09.
- (3) Within 5 years from the effective date of these criteria, all farms within the Critical Area shall have in place and be implementing a currently approved Soil Conservation and Water Quality Plan approved by the local Soil Conservation District.
- (4) A landowner shall be allowed to select and implement, with the assistance of a technically trained soil conservation planner or technician, from among those Best Management Practices that minimize impacts to water quality, conserve fish, wildlife, and plant habitat, and integrate best with the farming operation.

(5) Until such time as a Soil Conservation and Water Quality Plan is approved and in place, landowners shall be

encouraged to use the following practices:

(a) Proper nutrient application rates;

(b) Appropriate timing of nutrient application; (c) Appropriate method of nutrient application;

(d) Reduce tillage practices;

(e) Crop rotations;

(f) Cover crop.

(6) Agricultural activities are permitted in the Buffer (COMAR 14.15.09) if as a minimum Best Management Practice, a 25-foot naturally vegetated filter strip, measured landward from the Mean High Water Line of tidal waters or the edge of tributary streams (excluding drainage ditches) or from the edge of tidal wetlands, whichever is further inland, is established, and further provided that:

(a) The 25-foot naturally vegetated filter strip shall be maintained until such time as the landowner is implementing, under an approved Soil Conservation and Water Quality Plan, a program of Best Management Practices for the specific purposes of improving water quality and protecting plant and wildlife habitat; and that the Soil Conservation and Water Quality Plan demonstrates that other measures can achieve the water quality and habitat protection objectives of the 25-foot filter strip.

(b) A required Best Management Practice in the Buffer shall be that the grazing, feeding, or watering of livestock may not be permitted within 25 feet of the Mean High Water Line of tidal water, and the edge of tributary streams, or from the edge of tidal wetlands, whichever is

further inland;

(c) Clearing of existing woodland or forest vegetation is not allowed; and

(d) Farming activities do not disturb stream banks, tidal shorelines, or areas of plant and wildlife habitat as described in **COMAR 14.15.09**.

B. In developing their Critical Area Programs, local jurisdictions shall refer to the following complementary State regulations: Pursuant to COMAR 15.05.01, applicators may not use, apply, or recommend use of a pesticide other than as specified by the product label unless allowed for under emergency use, or special local need as provided for by §§18 or 24C, respectively, of the Federal Insecticide, Fungicide and Rodenticide Act, 7 U.S.C. 135 et seq., as amended.

14.15.07 Surface Mining in the Critical Area

.01 Definitions.

A. "Surface mining" means:

(1) The breaking of the surface soil in order to extract

or remove minerals in the Critical Area; and

(2) Any activity or process constituting all or part of a process for the extraction or removal of minerals from their original location in the Critical Area.

B. Surface mining does not include:

(1) Those aspects of deep mining which do not have a significant effect on the surface, if the affected land does not exceed 3 acres in area;

(2) Operations engaged in processing minerals,

(3) Excavation or grading conducted solely in aid of on-site farming or on-site construction for purposes other than mining;

(4) Removal of overburden and mining of limited amounts of any mineral when done only for the purpose of prospecting and to the extent necessary to determine the location, quantity, or quality of any natural deposit, if no minerals are sold, processed for sale, or consumed in the regular operation of a business;

(5) The handling, processing, or storage of slag and stone on the premises of a manufacturer as a part of the manufacturing process which requires stone as raw materi-

al or produces slag as a by-product;

(6) The extraction of minerals by a landowner for his own non-commercial use from land owned or leased by him;

(7) Mining operations, if the affected land does not ex-

ceed 1 acre in area;

(8) The extraction of sand, gravel, rock, stone, earth, or fill from borrow pits for highway construction purposes or other public facilities if the work is performed under a bond, contract, and specifications of the Department of Natural Resources which provides for and requires reclamation of the area affected in the manner provided for in the Surface Mining Act, Natural Resources Article, §7-6A-01 et seq., Annotated Code of Maryland; or

(9) Dredging from submerged public or private lands in the State if this activity is conducted under a license from the State Board of Public Works or by permit from the Department of Natural Resources, as provided for in Natural Resources Article, §§9-202, 9-301 et seq., Annotated Code of

Maryland.

.02 Policies.

In developing their Critical Area Programs, local jurisdictions shall use the following policies when addressing surface mining:

A. Assure that all available measures be taken to protect the Critical Area from all sources of pollution from surface mining operations including, but not limited to, sedimentation and siltation, chemical and petrochemical use and spillage, and storage or disposal of wastes, dusts, and spoils;

B. Assure that mining be conducted in a way to permit the reclamation of the site as soon as possible and to the extent possible.

.03 Criteria.

In developing their Critical Area Programs, local juris-

dictions shall use all of the following criteria:

A. Local jurisdictions shall develop a mineral resources plan and program for management to include in their comprehensive or master plan, if these resources exist in the jurisdiction.

B. The plans and programs are to be developed in conjunction with the Water Resources Administration of the Department of Natural Resources and other appropriate agencies, and submitted to the Commission for approval.

C. Each plan and program shall consist of all of the fol-

lowing:

(1) An identification and mapping of the undeveloped land in the Critical Area that should be kept in its undeveloped state until the land can be used to provide or assist in providing a continuous supply of minerals pursuant to Article 66B, \$3.05, Annotated Code of Maryland, as amended. Surface mining areas which include Habitat Protection Areas under COMAR 14.15.09 shall also be identified.

(2) An identification of appropriate post-excavation uses for this land such as recreation, habitat restoration, open space use, or development in accordance with the

guidelines for development in COMAR 14.15.02.

D. Local authorities shall establish regulations that designate those portions of the Critical Area that are unsuitable for future sand and gravel operations and shall prohibit those operations therein. Areas are unsuitable where:

(1) Important natural resources such as rare and endangered species, areas of scientific value, or rare assemblages of species occur as discussed in **COMAR 14.15.09** of

these regulations;

(2) Areas where highly erodible soils exist;

(3) The use of renewable resource lands would result in the substantial loss of long range (that is, 25 years or more) productivity of forest and agriculture, or would result in a degrading of water quality or a loss of vital habitat; or

(4) The lands are within 100 feet of the Mean High

Water Line of tidal waters or the edge of streams.

E. Future wash plants including ponds, spoil piles, and equipment may not be located within the Buffer as defined in COMAR 14.15.09.

F. Existing wash ponds shall be reclaimed as soon as possible after the cessation of a sand and gravel operation.

G. To the fullest extent possible, existing sand and gravel operations shall conduct their extraction activities so as to provide, at a minimum, a 100-foot buffer of natural vegetation between the operation and the Mean High Water Line of tidal waters or the edge of streams.

14.15.08 Natural Parks

.01 Definition.

"Natural parks" means areas of natural habitat that provide opportunities for those recreational activities that are compatible with the maintenance of natural conditions,

.02 Policy.

It is the policy of the Commission to encourage the creation of opportunities for interaction between people and natural environments without destroying the fragile components of natural habitats.

.03 Criteria.

In developing their Critical Area Programs, local juris-

dictions shall use all of the following criteria:

A. Local jurisdictions shall identify areas within their Critical Area where natural parks could be established, and consider conserving these features through acquisitions, easements, designation, or other appropriate means. Parks should not be chosen to preserve only natural curiosities, but they should be planned to include examples of coastal ecosystems that are found within the jurisdiction, each with its geological and biological resources intact. Park boundaries should be based on biological necessity rather than administrative convenience.

(2) Any plans developed for the use of parks should recognize that all natural terrain has a finite capacity to tolerate human disturbances and, therefore, should give utmost attention to limiting the number of park visitors in any

park at any one time or in the course of a season.

14.15.09 Habitat Protection Areas in the Critical Area

.01 Buffer.

A. Definition. "Buffer" means an existing, naturally vegetated area, or an area established or maintained to protect aquatic, wetlands, shoreline, and terrestrial environments from man-made disturbances.

B. Policies. In developing their Critical Area Programs, local jurisdictions shall use the following policies with re-

gard to the Buffer:

(1) Provide for the removal or reduction of sediments, nutrients, and potentially harmful or toxic substances in run-off entering the Bay and its tributaries;

(2) Minimize the adverse effects of human activities on wetlands, shorelines, stream banks, tidal waters, and

aquatic resources;

(3) Maintain an area of transitional habitat between aquatic and upland communities;

(4) Maintain the natural environment of streams; and .

(5) Protect riparian wildlife habitat.

C. Criteria. In developing their Critical Area Programs, local jurisdictions shall use all of the following criteria:

(1) Local jurisdictions shall establish a minimum 100-foot Buffer landward from the Mean High Water Line of tidal waters, tributary streams, and tidal wetlands. The Buffer is not required for agricultural drainage ditches if the adjacent agricultural land has in place Best Management Practices as required in COMAR 14.15.06.

(2) New development activities, including structures, roads, parking areas and other impervious surfaces, mining and related facilities, or septic systems, may not be permitted in the Buffer, except for those necessarily associated with water-dependent facilities, as set forth in **COMAR**

14.15.03.

(3) Agricultural activities are permitted in the Buffer, if, as a minimum Best Management Practice, a 25-foot naturally vegetated filter strip measured landward from the Mean High Water Line of tidal waters or tributary streams (excluding drainage ditches), or from the edge of tidal wetlands, whichever is further inland, is established, and further provided that:

(a) The 25-foot naturally vegetated filter strip shall be maintained until such time as the landowner is implementing, under an approved Soil Conservation and Water Quality Plan, a program of Best Management Practices for the specific purposes of improving water quality and protecting plant and wildlife habitat; and that the Soil Conservation and Water Quality Plan demonstrates that other measures can achieve the water quality and habitat protection objectives of the 25-foot naturally vegetated filter strip;

(b) The Best Management Practices shall include a requirement that the grazing, feeding, or watering of livestock, may not be permitted within 25 feet of the Mean High Water Line of tidal water and tributary streams, or from the edge of tidal wetlands, whichever is further inland:

(c) Clearing of existing woodland or forest vegetation

in the Buffer is not allowed; and

(d) Farming activities do not disturb stream banks, tidal shorelines, or areas of plant and wildlife habitat or rare and endangered species habitat as described in this chapter.

(4) The Buffer shall be maintained in natural vegetation, but may include planted vegetation where necessary to protect, stabilize, or enhance the shoreline.

(5) The cutting or clearing of trees within the 100-foot

Buffer shall be prohibited except that:

(a) Individual trees which are proximate to anadromous fish streams and in danger of falling, may be removed to prevent the blockage of the streams;

(b) Selection may be allowed where it can be shown that the water transpiration value and the habitat value of

the stand would be thereby enhanced;

(c) Cutting of trees or removal of natural vegetation may be permitted where necessary to install or construct a shore erosion protection device or measure, or a water-dependent facility, providing the device, measure, or facility has received all necessary State and federal permits; and

(d) Other cutting techniques may be undertaken within the Buffer and under the advice and guidance of the Departments of Agriculture and Natural Resources, if necessary to preserve the forest from extensive pest or disease

infestation or threat from fire.

(6) Local jurisdictions shall expand the Buffer beyond 100 feet to include contiguous, sensitive areas, such as steep slopes, hydric soils, or highly erodible soils, whose development or disturbance may impact streams, wetlands, or other aquatic environments. In the case of contiguous slopes of 15 percent or greater, the Buffer shall be expanded 4 feet for every 1 percent of slope, or to the top of the slope, whichever is greater in extent.

(7) As part of the local Critical Area Program to be submitted to the Commission, local jurisdictions may request an exemption of certain portions of the Critical Area from the Buffer requirements where it can be sufficiently demonstrated that the existing pattern of residential, industrial, commercial, or recreational development in the Critical Area prevents the Buffer from fulfilling the functions stated in §B above. If an exemption is requested, local jurisdictions shall propose other measures for achieving the water quality and habitat protection objectives of the policies.

.02 Non-Tidal Wetlands.

A. Definition.

(1) "Non-tidal wetlands" means those lands in the Critical Area where the water table is usually at or near the surface, or lands where the soil or substrate is covered by shallow water at some time during the growing season, and which are usually characterized by one or both of the following:

(a) At least periodically, the lands support predominantly hydophytic vegetation;

(b) The substrate is predominantly undrained hydric

soils.

(2) Excluded from these regulations are existing farm ponds and other existing man-made bodies of water whose purpose is to impound water for agriculture, water supply, recreation, or waterfowl habitat purposes.

B. Policy. In developing their Critical Area Programs, local jurisdictions shall protect those non-tidal wetlands in the Critical Area of importance to plant, fish, and wildlife,

and to water quality.

C. Criteria.

(1) In developing their Critical Area Programs, local jurisdictions shall develop a Non-Tidal Wetlands Protection Program as an element of their Critical Area Program.

(2) These programs should be developed using the expertise of the Coastal Resources Division and the Maryland Natural Heritage Program of the Department of Natural Resources, and other appropriate agencies and organizations, and should be submitted to the Commission for approval.

(3) Each Program shall consist of the following:

(a) Local programs shall identify non-tidal wetlands of importance to wildlife and water quality within the jurisdiction including:

(i) Non-tidal wetlands identified in the National Wetlands Survey as Palustrine Aquatic Bed, Palustrine Emergent, Palustrine Forested and Palustrine Scrub-shrub;

(ii) Other non-tidal wetlands, which may be found by site survey or other means to be hydrologically connected, through surface or subsurface flow, to streams, tidal wetlands, or tidal waters; and

(iii) Other non-tidal wetlands of special importance to fish, wildlife, or plant habitat as may be determined by the Maryland Natural Heritage Program, the Coastal Resources Division and the Maryland Forest, Park and Wildlife Service of the Department of Natural Resources, or other appropriate agencies.

(b) Local jurisdictions shall develop policies and programs for protecting the non-tidal wetlands identified in this regulation. At a minimum, these policies and programs

shall accomplish all of the following objectives:

(i) Maintain at least a 25-foot buffer around identified non-tidal wetlands where development activities or other activities which may disturb the wetlands or the wildlife contained therein, shall be prohibited unless it can be shown that these activities will not adversely affect the wetland.

(ii) Protect the hydrologic regime and water quality of identified non-tidal wetlands by providing that development activities or other land disturbances in the drainage area of the wetlands will minimize alterations to the surface or subsurface flow of water into and from the wetland and not cause impairment of the water quality or the plant and wildlife and habitat value of the wetland.

(iii) If proposed development activities, agricultural operations, or other activities, as a result of their being water-dependent or of substantial economic benefit, shall cause unavoidable and necessary impacts to the wetlands, then a mitigation plan shall be prepared by the proposer of the activity. The plan shall specify mitigation measures that will provide water quality benefits and plant and wildlife habitat equivalent to the wetland destroyed or altered and shall be accomplished, to the extent possible, on-site or near the affected wetland.

(iv) For all non-agricultural activities, local jurisdictions shall seek comments on mitigation plans from the Department of Natural Resources, and where appropriate, State departments including Health and Mental Hygiene, Agriculture, and the local Soil Conservation Districts. Upon finding that the plan as proposed, or as may be modified to address the comments of these agencies, provides mitigation sufficient to accomplish the objectives of this section, then local jurisdictions shall provide for the implementation of the plan.

(v) For agricultural activities, the local Soil Conservation District shall, with the assistance of the Department of Natural Resources, determine whether the plan provides mitigation sufficient to accomplish the objectives of

this regulation.

(4) The determination of the existence and extent of non-tidal wetlands and the protection of these areas shall result from a cooperative effort between the local jurisdiction and public agencies or private organizations, but no designation of habitat and protective measures shall be accomplished unless the affected public is given an adequate opportunity to be heard at the local level. A local jurisdiction's public hearing on its proposed Critical Area Program may be used to satisfy this requirement, if full notice of the proposed habitat management program is included in the general notice of the hearing.

.03 Rare, Threatened, and Endangered Species. A. Definition.

(1) Rare species are those plants, fish, and wildlife whose continued existence as a part of the State's resources are in question. These species are designated by regulation by the Secretary of the Department of Natural Resources.

(2) Threatened species are any species of wildlife or plants designated by regulation by the Secretary of the Department of Natural Resources which appear likely, within the forseeable future, to become endangered, including any species of wildlife or plant determined to be a "threatened" species pursuant to the federal Endangered Species Act, 16

U.S.C. §1531 et seq., as amended.

(3) Endangered species are any species of wildlife or plants which have been designated by regulation by the Secretary of the Department of Natural Resources. Designation occurs when the continued existence of these species as viable components of the State's resources are determined to be in jeopardy. This includes any species determined to be an "endangered" species pursuant to the federal Endangered Species Act, cited above.

B. Policy. In developing their Critical Area Programs, local jurisdictions shall provide protection for those rare, threatened, and endangered species and their habitats

which occur in the Critical Area.

C. Criteria. In developing their Critical Area Programs, the local jurisdictions shall use all of the following criteria with regard to rare, threatened or endangered species:

(1) Local jurisdictions shall develop management programs for the protection of rare, threatened, and endangered species habitats. These programs should be developed using the expertise of the Maryland Natural Heritage Program, the Maryland Forest, Park and Wildlife Service, and other appropriate public agencies and private organizations.

(2) These programs shall consist of one or both of the

following elements:

- (a) Designation of a protection area around each of the habitats occurring in the jurisdiction within which development activities and other disturbances shall be prohibited unless it can be shown that these activities or disturbances will not have or cause adverse impacts on these habitats;
- (b) Development of programs for providing protection for rare, endangered, and threatened species habitat which may include, but are not limited to, acquisition, conservation easements, cooperative agreements with landowners, special provisions in forest management and soil conservation plans, and special provisions in subdivision or zoning regulations.
- (3) The determination of the existence and extent of these habitats and protection areas shall result from a cooperative effort between the local jurisdiction and the public agencies or private organizations noted above, but no designation of habitat and protective measures shall be accomplished unless the affected public is given an adequate opportunity to be heard at the local level. A local jurisdiction's public hearing on its proposed Critical Area Program may be used to satisfy this requirement, if full notice of the proposed habitat management program is included in the general notice of the hearing.

.04 Plant and Wildlife Habitat.

A. Definition.

(1) "Plant habitat" means a community of plants commonly identifiable by the composition of its vegetation and

its physiographic characteristics.

(2) "Wildlife habitat" means those plant communities and physiographic features that provide food and cover, nesting, and foraging or feeding conditions necessary to maintain populations of animals in the Critical Area.

B. Policies. In developing their Critical Area Programs, local jurisdictions shall use the following policies with re-

gard to plant and wildlife habitat:

(1) Conserve wildlife habitat in the Critical Area;

(2) Protect those wildlife habitats that tend to be least abundant or which may become so in the future if current land-use trends continue;

(3) Protect those wildlife habitat types which are required to support the continued presence of various spe-

cies;

(4) Protect those wildlife habitat types and plant communities which are determined by local jurisdictions to be of local significance; and

(5) Protect Exemplary Plant Communities.

C. Criteria. In developing their Critical Area Programs, the local jurisdictions shall use all of the following criteria:

(1) The local jurisdictions shall develop a Plant and Wildlife Habitat Protection Program as an element of their Critical Area Program. These Programs are to be developed using the expertise of the Maryland Forest, Park and Wildlife Service, the Tidewater Administration, the Maryland Natural Heritage Program, other appropriate agencies, and adjacent jurisdictions, and submitted to the Commission for approval.

(2) Each Plant and Wildlife Habitat Protection Pro-

gram shall consist of the following:

(a) Identification of plant and wildlife habitat in the Critical Area including:

(i) Colonial water bird nesting sites;

(ii) Waterfowl staging and concentration areas in tidal waters, tributary streams, or tidal and non-tidal wetlands;

(iii) Existing riparian forests (for example, those relatively mature forests of at least 300 feet in width which occur adjacent to streams, wetlands, or the Bay shoreline

and which are documented breeding areas);

(iv) Forested areas utilized as breeding areas by forest interior dwelling birds and other wildlife species (for example, relatively mature forested areas within the Critical Area of 100 acres or more, or forest connected with these areas);

(v) Other areas identified by State and federal agencies as important plant or wildlife habitat areas;

(vi) Other plant and wildlife determined to be of local significance; and

(vii) Exemplary Plant Communities which have

been designated.

(b) Establishment of policies and programs for conserving or protecting the plant and wildlife habitat areas identified above. At a minimum, these policies and programs should accomplish the following objectives by using such measures as the following:

(i) Establish buffer areas for colonial water bird (heron, egret, and tern) nesting sites so that there sites are protected from the adverse impacts of development activities and from disturbance during the breeding season.

(ii) Provide that new water-dependent facilities are so located as to prevent disturbance to sites of significance to wildlife such as historic staging and concentration areas for waterfowl.

(iii) Provide protection measures including a Buffer area where appropriate, for other plant and wildlife

habitat sites identified in C(2)(a)(v) of this section.

(iv) Protect and conserve those forested areas required to support a representative range of wildlife species identified above by the resources described in \$C(2)(a)(iii)(and iv)g by developing management programs which have as their objective, conserving the wildlife that inhabit or use the areas. The programs should assure that development activities, or the clearing or cutting of trees which might occur in the areas, is conducted so as to conserve riparian habitat, forest interior wildlife species, and their habitat. Management measures may include incorporating appropriate wildlife protection elements into forest management plans, and cluster zoning or other site design criteria which provide for the conservation of wildlife habitat. Measures may also include soil conservation plans that have wildlife habitat protection provisions appropriate to the areas defined above, and incentive programs which use the acquisition of easements and other similar techniques.

(v) Require that, to the extent possible, corridors of existing forest or woodland vegetation be maintained to provide effective connections between wildlife habitat areas.

- (vi) Protect by appropriate means those plant and wildlife habitats considered to be of significance by local jurisdictions (Examples of these areas are those whose habitat values may not be of Statewide significance, but are of importance locally or regionally because they contain species uncommon or of limited occurrence in the jurisdiction, or because the species are found in unusually high concentrations.)
- (vii) Protect Exemplary Plant Communities from alteration due to development activities or cutting or clearing so that the structure and species composition of the communities are maintained.
- (c) The determination of the existence and extent of these plant and wildlife habitats, and the development of appropriate protection measures for these areas, shall result

from a cooperative effort between the local jurisdiction and the public agencies or private organizations noted above. Designation of habitat and protective measures may not be accomplished unless the affected public is given an adequate opportunity to be heard. A local jurisdiction's public hearing on its proposed Critical Area Program may be used to satisfy this requirement, if full notice of the proposed habitat management program is included in the general notice of the hearing.

.05 Anadromous Fish Propagation Waters.

A. Definition. "Anadromous fish propagation waters" means those streams that are tributary to the Chesapeake Bay where spawning of anadromous species of fish (e.g., rockfish, yellow perch, white perch, shad, and river herring) occurs or has occurred. The streams are designated by the Tidewater Administation. For purposes of this regulation, "streams" refers to designated anadromous fish propagation waters within the Critical Area.

B. Policies. In developing their Critical Area Programs, local jurisdictions shall use the following policies with re-

gard to anadromous fish:

(1) Protect the instream and streambank habitat of

anadromous fish propagation waters;

(2) Promote land use policies and practices in the watershed of spawning streams which will minimize the adverse impacts of development on the water quality of the streams; and

(3) Provide for the unobstructed movement of spawning

and larval forms of anadomous fish in streams.

C. Criteria.

(1) In developing their Critical Area Programs, local jurisdictions shall use all of the following criteria:

(a) The installation or introduction of concrete riprap or other artificial surfaces onto the bottom of natural streams shall be prohibited unless it can be demonstrated that water quality and fisheries habitat can be improved.

(b) Channelization or other physical alterations which may change the course or circulation of a stream and thereby interfere with the movement of fish, shall be prohib-

ited.

- (c) Local jurisdictions shall develop policies and programs for avoiding adverse impacts of any activities occurring on those portions of any watershed within the Critical Area which drain into anadromous fish spawning steams. These policies and programs shall address at least the following objectives:
- (i) Minimize development activities or other land disturbances in the watershed;

(ii) Maintain, or if practicable, improve water quality in streams;

(iii) Minimize, to the extent possible, the discharge of sediments into streams; and

(iv) Maintain, or if practicable, increase the natu-

ral vegetation of the watershed.

(d) Local jurisdictions are encouraged to adopt landuse policies and programs in watersheds outside the Critical Area to minimize the impacts of any activities on anadromous fish spawning streams.

(2) In developing their Critical Area Programs, local jurisdictions shall use all of the following complimentary

State laws and regulations:

(a) The construction or placement of dams or other structures that would interfere with or prevent the movement of spawning fish or larval forms in streams shall be prohibited. If practical, the removal of existing barriers shall be effected (COMAR 08.05.03.02).

(b) Local jurisdiction shall assure that the construction, repair, or maintenance activities associated with bridges, or other stream crossing or with utilities and roads, which involve disturbance within the 100-foot buffer or which occur instream, shall be prohibited between March 1 and May 15 (COMAR 08.05.03.09B(4)).

14.15.10 General Implementation Requirements for Local Program Development

.01 Criteria.

In developing their Critical Area Programs, local jurisdictions shall use the following general program criteria:

- A. Each jurisdiction shall inventory or map or both, certain resources of its Critical Area. The inventory shall include the following resources (as defined in the appropriate foregoing chapters of this subtitle concerning specific criteria):
 - (1) Agricultural lands;
 - (2) Non-tidal wetlands;
 - (3) Tidal wetlands;
 - (4) Forest resources;
 - (5) Sand and gravel resources;
 - (6) Stream corridors;
- (7) Known rare, threatened, and endangered species habitats:
- (8) The watersheds of anadromous fish spawning streams;
 - (9) Plant and wildlife habitats;
 - (10) Steep slopes;
 - (11) Soils with development constraints;
 - (12) Areas suitable for water-dependent facilities;
- (13) Areas where topography prevents the direct or indirect flow of pollutants into tidal waters; and
- (14) Intensely Developed, Limited Development, and Resource Conservation Areas as defined in COMAR 14.15.02.
- B. Any such mapping shall be at a scale that is relevant to local jurisdictions and of sufficient detail to assess the potential impacts of proposed land-use changes on the quality and quantity of local water resources and on local wildlife and plant habitats.
- C. Each program submission shall list the specific local program objectives and an expected time schedule for implementation.
- D. Local permitting and approval processes shall be coordinated so that cumulative impacts of regulated activities can be readily assessed.
- E. The local program document shall, if applicable, include, but not be limited to:
 - (1) A forest and woodland protection program;
 - (2) A mineral resources plan;
 - (3) An agricultural protection plan; and
 - (4) A habitat protection area plan.
- F. Jurisdictions shall review and revise local plans, programs, and regulations that are inconsistent with the intent of the policies and criteria in this subtitle. At a minimum, and if applicable, the review and revisions shall include:
 - Comprehensive or master plans;
 - (2) Comprehensive water and sewer plans;
- (3) Comprehensive solid waste plans and any other health/environment-related plans and ordinances, for example, regulation for septic system placement;
 - (4) Capital improvements programs and capital budg-
 - (5) Zoning ordinances and comprehensive zoning maps;
 - (6) Subdivision regulations; and

- (7) Growth management ordinances, if applicable.
- G. In each local program, the document shall include a statement of the local agencies involved, their responsibilities and their coordination with each other and appropriate State, federal, or private organizations.
- H. Local jurisdictions shall demonstrate that the local regulations and programs proposed to meet the criteria in this regulation are enforceable.
- I. Capital program investments of local jurisdictions shall be consistent with Critical Area Commission policies and criteria.
- J. Each jurisdiction shall attempt to establish cooperative arrangements with adjacent jurisdictions and with State and federal agencies concerning the policies and objectives for lands within and adjoining the jurisdiction's Critical area.
- K. Each jurisdiction is encouraged to extend the upland boundary of its Critical Area beyond the 1000 foot boundary prescribed by law. Local jurisdictions are encouraged to apply protection measures similar to those contained in their Critical Area Program to land disturbances beyond the Critical Area boundary in an effort to protect or enhance water quality and to conserve plant and animal habitats.
- l. Local jurisdictions are encouraged to establish a program that provides tax benefits to landowners who wish to donate conservation easements, and consider other financial incentives as provided for in Maryland State law, and are encouraged to identify other appropriate protection measures which may include: acceptance of donations, acquisition of easements or fee simple purchase. Funding mechanisms for this protection may include, but not be limited to, federal and State programs, local bonding authority, or donations from private organizations.
- M. Local jurisdictions are encouraged to establish an education program as a means by which landowners in the Critical Area may be informed of the intent of the law, the status of the local program, and sources of additional information and assistance.
- N. Controls in a local program, beyond those required by other State programs or statutes, designed to prevent the flow of pollutants, need not be required on sites where the topography prevents run-off from either directly or indirectly entering the tidal waters.
- O. The establishment of buffer areas around sites of special significance (that is, Habitat Protection Areas) is not intended to restrict or affect, beyond any existing local, State, or federal laws or regulations or on private land, any private restrictions, such activities as non-commercial passive recreation (for example, hiking and nature photography), educational pursuits, scientific observation, or hunting, trapping, or fishing.
- P. Local jurisdictions shall provide for the grandfathering of development at the time the program is adopted or approved by the Commission, but, at a minimum, the following specific findings must be made by the local government for all development that could be grandfathered under such a local provision:
- (1) The proposed development will minimize adverse impacts on water quality that result from pollutants that are discharged from structures or conveyances or that have run-off from surrounding lands; and
- (2) The applicant has identified fish, wildlife, and plant habitat which may be adversely affected by the proposed development so as to protect those identified habitats

whose loss would substantially diminish the continued ability of populations of affected species to sustain themselves.

SOLOMON LISS Chairman Chesapeake Bay Critical Area Commission

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