

Presented below are water quality standards that are in effect for Clean Water Act purposes.

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Title 26 DEPARTMENT OF THE ENVIRONMENT

Subtitle 08 WATER POLLUTION

Chapters 01-10

Title 26 DEPARTMENT OF THE ENVIRONMENT

Subtitle 08 WATER POLLUTION

Chapters 01 General

Authority: Environment Article, §§9-313—9-316, 9-319, 9-320, 9-325, 9-327, and 9-328, Annotated Code of Maryland

.01 Definitions.

A. General.

(1) The following definitions describe the meaning of terms used in the water quality and water pollution control regulations of the Department of the Environment (COMAR 26.08.01—26.08.04).

(2) The terms "discharge", "discharge permit", "disposal system", "effluent limitation", "industrial user", "national pollutant discharge elimination system", "person", "pollutant", "pollution", "publicly owned treatment works", and "waters of this State" are defined in the Environment Article, §§1-101, 9-101, and 9-301, Annotated Code of Maryland. The definitions for these terms are provided below as a convenience, but persons affected by the Department's water quality and water pollution control regulations should be aware that these definitions are subject to amendment by the General Assembly.

B. Terms Defined.

(1) "Acute toxicity" means the capacity or potential of a substance to cause the onset of deleterious effects in living organisms over a short-term exposure as determined by the Department.

(2) "Administrative order" means a written notification issued by the Department under State law and regulations, and requiring correction of a water pollution condition or compliance with provisions of pertinent law and regulations.

(3) "Advanced waste treatment" means treatment of wastes or wastewaters to:

(a) Reduce the level of specific constituents which are not sufficiently controlled by best available technology (BAT) for industrial discharges or by secondary treatment for municipal discharges; or

(b) Reduce organic oxygen demand beyond the level attainable by BAT or secondary treatment to comply with waste load allocations in water quality limited waters.

(4) "Affiliate" means a person who wholly or partially owns a controlling interest in, controls, or operates the applicant, or who is wholly or partially owned, controlled, or operated by the applicant.

(5) "Alternate effluent limitations" means all effluent limitations or standards of performance for the control of the thermal component of any discharges which are established under the Environment Article, Title 9, Subtitle 3, Annotated Code of Maryland, and COMAR 26.08.03.03.

(5-1) "Animal feeding operation (AFO)" means a feedlot or facility where:

(a) Non-aquatic animals are confined, fed, and maintained for at least 45 days in any 12-month period; and

(b) Crops, vegetation, forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility.

(5-2) Animal Waste.

(a) "Animal waste" means liquid or solid waste, or both, from animal feeding, milking, holding, or other animal operations.

(b) "Animal waste" includes manure, poultry litter, offal, and process wastewater generated by an AFO.

(6) "Aquifer" means any formation of soil, sand, rock, gravel, limestone, sandstone, or other material, or any crevice from which underground water is or may be produced.

(7) "Average ebb tidal excursion" means the average velocity (feet/second) of the ebb tide passing through the cross section of the receiving waters at the point of discharge, multiplied by the duration of the tide (slack before ebb to slack before flood). The average velocity shall be determined from measurement of transect velocities at three neap tides with low fresh water input and three spring tides with high fresh water input.

(8) "Balanced indigenous community" means a biotic community typically characterized by diversity, the capacity to sustain itself through cyclic seasonal changes, presence of necessary food chain species, and by a lack of domination by pollution-tolerant species. This community may include historically non-native species introduced in connection with a program of wildlife management and species whose presence or abundance results from substantial, irreversible environmental modifications. Normally, however, this community does not include species whose presence or abundance is attributable to:

(a) The introduction of pollutants that will be eliminated by compliance by all sources with effluent limitations; and

(b) Alternate effluent limitations imposed under COMAR 26.08.03.03.

(9) "Base flow" means the discharge entering stream channels from ground water or other delayed sources; that is, stream flow periods not affected by recent rainfall.

(9-1) "Benthos" means a group of organisms, often invertebrates that live in or on the bottom in aquatic habitats.

(10) "Best available technology (BAT)" means, for discharges from industrial facilities, the best existing wastewater treatment technology economically achievable within an industrial category. BAT is equivalent to the EPA effluent limitation guidelines in the Federal Act for best available technology economically achievable and best conventional pollutant control technology (BCT). For discharges from all sewage treatment facilities, BAT means the secondary treatment levels specified by the Department in discharge permits.

(11) "Biocide residual" means the level remaining in an effluent of a chemical substance added as part of the treatment process for the purpose of controlling bacteria, fungi, algae, or other microorganisms. This term includes chlorine and ozone.

(11-1) "Chesapeake Bay" means all tidally-influenced waters within the Chesapeake Bay watershed.

(11-2) "Chesapeake Bay program segment" means a segment or segments of the Chesapeake Bay mainstem or its tidal tributaries the boundaries of which are defined by a set of georeferenced points.

(11-3) "Chlorophyll a" means one of three green pigments in plant cells, used as a measure of productivity in aquatic environments. Elevated levels of nutrients are usually reflected in corresponding elevations in chlorophyll a.

(12) "Chronic toxicity" means the capacity or potential of a substance to cause deleterious effects in living organisms over a long-term exposure as determined by the Department.

(12-1) "Coal remining" means a coal mining operation which begins after January 2, 1995 at a site on which coal mining was conducted before August 3, 1977, the effective date of the federal Surface Mining Control and Reclamation Act of 1977.

(13) "Coliform organisms" means all of the aerobic and facultative anaerobic, gram-negative, non-spore-forming, rod-shaped bacteria that ferment lactose broth with gas formation within 48 hours at 35°C.

(13-1) "Comprehensive nutrient management plan (CNMP)" means a nutrient management and conservation plan that is developed in accordance with the Natural Resources Conservation Service (NRCS) planning policy and meets NRCS technical standards.

(13-2) "Concentrated animal feeding operation (CAFO)" means:

(a) A medium AFO or large AFO, based upon the size categories established in Table 1 of COMAR 26.08.03.09A, that discharges or proposes to discharge, as defined by the Federal Act, to surface waters of this State;

(b) A small AFO designated a CAFO by the Department in accordance with COMAR 26.08.03.09B; or

(c) An AFO designated as a CAFO by the Regional Administrator (RA) of the EPA in accordance with the Federal Act.

(14) "Control" means the possession of the power to direct or cause the direction of the management policies of a person.

(15) "Criteria" means elements of State water quality standards expressed as constituent concentrations, levels, or narrative statements representing a quality of water that supports a particular use.

(16) "Critical periods" means that time of the year during which sensitive life stages or densities of representative important species (RIS) are present in the plant intake or receiving waters.

(17) "Department" means the Department of the Environment.

(18) "Design stream flow" means the minimum 7 consecutive day average stream discharge having a recurrence interval of 10 years.

(19) "Designated use" means those uses specified in the State's water quality standards for each water body or segment whether or not the uses are being attained.

(20) "Discharge" means:

(a) The addition, introduction, leaking, spilling, or emitting of any pollutant to waters of this State; or

(b) The placing of a pollutant in a location where the pollutant is likely to pollute.

(21) "Discharge permit" means a permit issued by the Department for the discharge of any pollutant or combination of pollutants into the waters of this State.

(22) "Disposal system" means a system for disposing of wastes by surface, above surface, or underground methods. Disposal system includes a treatment works and a disposal well.

(22-1) "Dissolved oxygen" means gaseous oxygen that is dissolved in the water.

(23) "Effluent" means the outflow of treated or untreated waste from an industrial process, holding tank, pond, sewer, or other point source into the waters of this State.

(24) "Effluent limitation" means any restriction or prohibition that:

- (a) Is established under federal law or a law of this State;
 - (b) Specifies quantities, rates or concentrations of chemical, physical, biological, or other constituents that are discharged into the waters of this State;
 - (c) Includes:
 - (i) Parameters for the discharge of toxic and nontoxic substances, and
 - (ii) Standards of performance for new sources.
- (25) "Effluent limited waters" means waters of this State which the Department has identified as those in which BAT for industrial discharges and secondary treatment for sewage discharges is sufficiently stringent to maintain applicable water quality standards.
- (26) "Emergency conditions" means those circumstances resulting from a permittee's actions, or lack of actions, which the Department determines constitute a present or imminent danger to the public health, welfare, or the environment.
- (27) "Entrainment" means the incorporation of organisms into the cooling water flow.
- (28) "EPA" means the United States Environmental Protection Agency, or its successor.
- (28-1) "Epifauna" means organisms that live upon aquatic substrates.
- (29) "Estuary" means a semi-enclosed coastal body of water having a free connection with the open sea and within which the seawater is measurably diluted with fresh water deriving from land drainage.
- (30) "Eutrophication" or "eutrophic" means:
- (a) The excessive enrichment of the waters of this State by the discharge to or addition of nutrients; or
 - (b) The degradation of water quality or undesirable ecological changes as indicated by excessive rooted or dispersed plant growth, loss of water clarity, or nuisance conditions.
- (31) "Existing use" means those uses actually attained in the water body after November 27, 1975, whether or not the uses are included in the water quality standards.
- (32) "Fecal coliform" means the portion of the coliform bacteria group which is present in the gut or the feces of warm-blooded animals. It generally includes organisms which are capable of producing gas from lactose broth in a suitable culture medium within 24 hours at 44.5° +/-0.5°C.
- (33) "Federal Act" means the Federal Water Pollution Control Act (33 U.S.C. §1251 et seq.), its amendments, and all regulations and rules adopted under the Act.
- (34) "Fish" means any of numerous cold-blooded aquatic vertebrates of the Superclass Pisces, characteristically having fins, gills and a streamlined body. Fish includes:
- (a) Any of the Class Osteichthyes having a bony skeleton;
 - (b) Any of the Class Chondrichthyes, having a cartilaginous skeleton (sharks, rays, and skates); and
 - (c) Any of the Class Agnatha which lack jaws (lampreys and hagfishes).
- (35) "General permit" is a discharge permit issued to a class of dischargers.
- (36) "Ground water" means underground water in a zone of saturation.

(36-1) "Hydrodemolition" means a concrete removal technique which utilizes high-pressure water to remove deteriorated and sound concrete as well as asphalt and grout.

(37) "Impingement" means the blocking of larger organisms by a structure in the cooling water intake system.

(38) "Includes" or "including" means includes or including by way of illustration and not by way of limitation.

(39) "Industrial user" means:

- (a) A person who is engaged in manufacturing, fabricating, or assembling goods; or
- (b) A member of any class of significant producers of pollutants identified under regulations adopted by:
 - (i) The Department, or
 - (ii) The Administrator of the United States Environmental Protection Agency.

(40) "Industrial waste" means any liquid, gaseous, solid, or other waste substance, or combination thereof, resulting from:

- (a) Any process of industry, manufacturing, trade or business; or
- (b) The development of any natural resource, including agriculture.

(40-1) "Infauna" means organisms that live within the sediment in aquatic substrates.

(41) "Interference" means:

(a) An inhibition or disruption of a POTW, its treatment processes or operations, or its sludge generation processes or utilization which causes a violation of any requirement of the POTW's discharge permit or which prevents sewage sludge utilization by the POTW in accordance with the following statutory provisions and regulations or permits issued under them:

- (i) Section 405 of the Clean Water Act;
- (ii) The Solid Waste Disposal Act (SWDA) (including Title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA) and any State regulations contained in any State sludge management plan prepared pursuant to Subtitle D of the SWDA);
- (iii) The Clean Air Act; and
- (iv) The Toxic Substances Control Act.

(b) Damage to sewer systems and threats to POTW worker and public health, safety, and comfort.

(42) "Intermittent stream" means a stream that does not have flowing surface water during dry periods of the year, but may have groundwater-based surface flow at other times.

(42-1) "Maryland animal feeding operation (MAFO)" means an AFO that is not a CAFO and is:

- (a) A large AFO according to Table 1 of COMAR 26.08.03.09A; or
- (b) A medium AFO according to Table 1 of COMAR 26.08.03.09A, designated a MAFO in accordance with COMAR 26.08.03.09C(2).

(43) "Material balance" means an inventory accounting system for determining quantities of materials on hand, used in process, converted to product, lost to the environment, or contained in waste matter generated, stored, discharged, or otherwise processed.

(43-1) "Mean low water" means the average of all the low water heights observed over the National Tidal Datum Epoch.

(43-2) "Mesohaline" means tidal waters with salinities from 5 to less than 18 parts per thousand.

(43-3) "Minimum level" means the lowest concentration of a substance as determined by the Department that generally can be quantified within specified limits of interlaboratory precision and accuracy under routine laboratory operating conditions in the matrix of concern.

(44) "Mixing zone" means an area contiguous to a discharge where surface water quality or ground water quality does not have to meet:

- (a) All water quality criteria; or
- (b) All requirements otherwise applicable to the natural water.

(45) "National Pollutant Discharge Elimination System (NPDES)" means the national system for issuing permits as designated by the Federal Act.

(46) "National pretreatment requirements" means any general pretreatment regulation established by EPA in accordance with the Federal Act.

(47) "National pretreatment standard" means a pollutant discharge limit that:

- (a) Applies to industrial users of publicly owned treatment works; and
- (b) Is promulgated by EPA under the Federal Act.

(48) "NPDES application" means the current revised EPA standard national forms for applying for an NPDES permit.

(49) "NPDES permit" means the permit issued under the Federal Act.

(50) "Natural" or "naturally occurring", when used to describe water quality, means:

- (a) Those water quality values which exist unaffected by, or unaffected as a consequence of, any water use;
- (b) Those water quality values which exist unaffected by the discharge, or direct or indirect deposit, of any solid, liquid, or gaseous substance; or
- (c) Any other water quality values which represent conditions which the Department by its regulations defines as natural. For the purposes of this definition, the following conditions shall be considered as natural:
 - (i) Infestations of water milfoil, *myriophyllum spicatum*,
 - (ii) Infestations of water chestnut, *trapa natans*,
 - (iii) The presence of sea lettuce, *ulva lactuca*, and
 - (iv) The presence of sea nettles, *aurelia* sp.

(51) "Natural trout waters" means waters capable of supporting self-sustaining trout populations, including propagation, and their associated food organisms.

(52) "New source" means any source, the construction of which is commenced after the publication by the EPA of proposed regulations prescribing a standard of performance which will be applicable to the source if the standard is promulgated.

(53) "Nontidal water" means water not subject to regular and periodic tidal action (generally freshwater).

(53-1) "Nutrient management plan (NMP)" means a plan written by a nutrient management planner certified by the Maryland Department of Agriculture (MDA) that meets all requirements of COMAR 15.20.07 and 15.20.08 and any other requirements specified by the Department in a discharge permit issued pursuant to this subtitle.

(53-2) Offal.

(a) "Offal" means the refuse from slaughtered or salvageable dead animals, crustaceans, or any other animal form.

(b) "Offal" includes heads, feet, viscera, hair, blood, feathers, bones, scales, or oils.

(54) "Oil" means any of a number of unctuous combustible substances which are liquid at ambient temperature and atmospheric pressure, or easily liquefiable on warming and soluble in ether, and which include fuel oil, gasoline, kerosene, lubricating oil, other petroleum products, oil bearing sludge, oil refuse, oil mixed with ballast or bilge water, and oil mixed with wastes.

(54-1) "Oligohaline" means tidal waters with salinities from 0.5 to less than 5 parts per thousand.

(55) "Operator" means that person or those persons with responsibility for the management and performance of each facility.

(55-1) "Opportunistic species" means an organism that tolerates or thrives in a disturbed environment, or both, and has a competitive edge in some situations.

(56) "Other aquatic life" means all organisms, other than fish, which grow in, live in, or frequent water.

(57) "Other waste" means garbage, refuse, wood, sawdust, shavings, bark, sand, lime, cinders, ashes, offal, oil, tar, dyestuffs, acids, chemicals, and all discarded substances other than sewage or industrial waste.

(58) "Pass through" means discharge of pollutants through the POTW into waters of the State in quantities or concentrations which cause a violation of any requirement of the POTW's discharge permit.

(58-1) "Percent-light-through-water (PLW)" means the amount of light reaching just above the canopy of underwater bay grasses, expressed as a fraction of the light at the water surface.

(59) "Permeability of an aquifer" means the volume of water at the prevailing kinematic viscosity that will move in unit time under a unit hydraulic gradient through a unit area measured at right angle to the direction of flow.

(60) "Permit" means written authorization issued by the Department under pertinent law and regulations and describing required performance for specific activities and operations.

(61) "Permittee" means the person holding a permit issued by the Department.

(62) "Person" means an individual, receiver, trustee, guardian, personal representative, fiduciary, or representative of any kind, and any partnership, firm, association, corporation or other entity. Person includes the federal government, this State, any county, municipal corporation, or other political subdivision of this State or any of their units.

(63) "Person in charge" means the person designated by an operator or permittee as the one with direct supervisory responsibility for an activity or operation at a facility.

(64) "Point of discharge" means that location in or adjacent to a body of water at which any liquid, solid, or gaseous substances are discharged or deposited.

(65) "Point source" means any discernible, confined and discrete conveyance, including any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, large animal feeding operation, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are, or may be, discharged.

(66) "Pollutant" means:

(a) Any waste or wastewater that is discharged from:

(i) Any publicly owned treatment works, or

(ii) An industrial source; or

(b) Any other liquid, gaseous, solid, or other substances which will pollute any waters of this State.

(67) "Pollution" means any contamination or other alteration of the physical, chemical, or biological properties of any waters of this State, including a change in temperature, taste, color, turbidity, or odor of the waters or the discharge or deposit of any organic matter, harmful organism, or liquid, gaseous, solid, radioactive, or other substance into any waters of this State that will render the waters harmful, or detrimental, to:

(a) Public health, safety, or welfare;

(b) Domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses;

(c) Livestock, wild animals, birds; or

(d) Fish or other aquatic life.

(67-1) "Polyhaline" means tidal waters with salinities from 18 to 30 parts per thousand. These areas are typically in the lower portion of an estuary, where the ocean and estuary meet.

(67-2) "Preexisting discharge" means any discharge which existed at the time of application for a coal remining discharge permit.

(68) "Pretreatment" means a reduction in the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in a wastewater before discharging to or otherwise introducing pollutants into a POTW.

(69) "Pretreatment requirements" means any:

(a) Federal pretreatment requirements and federal pretreatment standards;

(b) Pretreatment regulations developed in accordance with Environment Article, §9-319(a), Annotated Code of Maryland;

(c) Pretreatment requirements listed within the delegation document issued by the Department approving a pretreatment program developed by owners of a POTW;

(d) Pretreatment requirements developed by owners of POTWs in accordance with approved pretreatment programs; or

(e) Pretreatment requirements established in a permit or agreement between a POTW and an industrial user issued in accordance with an approved pretreatment program.

(70) "Propagation" means the continuance of species by generation of successive production in the natural environment, as opposed to the maintenance of species by artificial culture and stocking.

(71) "Publicly owned treatment works (POTW)" means a facility that is:

(a) Owned by this State or a political subdivision, municipal corporation, or other public entity; and

(b) Used for the treatment of pollutants.

(72) "Public water supply" means any water of this State with the designated use of public water supply and which is suitable for human consumption when treated to meet the requirements of COMAR 26.04.01.

(72-1) "Pycnocline" means the portion of the water column where density changes rapidly because of salinity, temperature, or both. In an estuary the pycnocline is the zone separating deep, cooler, more saline waters from the less saline, warmer, surface waters. The upper and lower boundaries of a pycnocline are defined by a change in density per unit of depth. The upper pycnocline is the shallowest occurrence of a density gradient of 0.1 kg/m⁴ or greater and the lower pycnocline depth is the deepest occurrence of a density gradient of 0.2 kg/m⁴.

(73) "Receiving water" means the surface waters of this State into which waters or wastewaters are or may be discharged.

(74) "Recreational trout waters" means cold or warm waters capable of holding or supporting adult trout for put-and-take fishing, usually seasonal.

(75) "Refuse Act" means §13 of the River and Harbor Act of March 3, 1899.

(76) "Refuse Act application" means the application for a permit under the Refuse Act.

(77) "Refuse Act permit" means any permit issued under the Refuse Act.

(78) "Regular or periodic tidal action" means the rise and fall of the sea produced by the gravitational attraction of the sun and moon unaffected by wind or any other circumstances.

(78-1) "Remined area" means only that area of any coal remining operation on which coal mining was conducted before August 3, 1977.

(78-2) "Restoration variance" means a temporary exception to the water quality standards allowing nonattainment of designated uses granted in situations where no enforcement action will be taken if the nonattainment is due to the existence of one or more of the justifications in 40 CFR §131.10(g). Restoration variances will be reviewed every 3 years at a minimum as required by the Clean Water Act and EPA regulations.

(79) "Schedule of compliance" means a schedule of remedial measures including an enforceable sequence of actions or operations leading to compliance with effluent limitations or water quality standards as specified by an order or permit requirement of the Department.

(79-1) "Secchi disk" means a device for measuring water clarity that consists of a circular weighted disk painted in flat black and white in alternating quarters that is suspended on an incremented rope or line.

(79-2) "Secchi depth" means the depth at which a Secchi disk is just visible when viewed vertically from a shaded perspective. The measure is taken by lowering the device to a depth below which it can be seen and then raising it until it is just visible.

(80) "Secondary treatment" means the treatment of sewage to produce effluent equal to or better than the following quality:

(a) Five-day biochemical oxygen demand:

(i) 30 milligrams/liter—average for a 30-day period,

(ii) 45 milligrams/liter—average for a 7-day period;

(b) Total suspended solids:

(i) 30 milligrams/liter—average for a 30-day period,

(ii) 45 milligrams/liter—average for a 7-day period;

(c) Bacterial control: As required to meet water quality standards.

(81) "Sewage" means the water-carried domestic waste from residences, buildings, industrial establishments, or other places.

(81-1) Sewerage System.

(a) "Sewerage system" means:

(i) The channels used or intended to be used to collect and dispose of sewage; and

(ii) A structure or appurtenance used or intended to be used to collect or prepare sewage for discharge into a treatment works or the waters of the State.

(b) "Sewerage system" includes a sewer of any size.

(c) "Sewerage system" does not include the plumbing system inside a building served by the sewerage system.

(82) "Shellfish harvesting waters" means waters that are actual or potential areas for the harvesting of shellfish including oysters, softshell clams, and brackish water clams.

(83) "Sludge" means the settleable solids that are:

(a) Naturally present in waters and wastewaters; or

(b) Derived from nonsettleable matter by chemical coagulation and precipitation or by biological flocculation and precipitation.

(83-1) "Soil conservation and water quality plan (conservation plan)" means a plan that is developed by a soil conservation district, MDA, a Natural Resources Conservation Service (NRCS) planner, or a technical service provider certified by the NRCS that addresses the following minimum elements:

(a) Storage for animal manure and litter, including any need for additional storage or manure transfer;

(b) Stabilized surfaces in heavy use areas;

- (c) Diversion of storm water away from the production area;
- (d) Maintenance of vegetation around the production area;
- (e) Construction and maintenance of filter strip or strips or water control structures between the production area and surface water; and
- (f) Mortality management.

(84) "Source" means any building, structure, facility, or installation from which there is, or may be, a discharge of pollutants.

(85) "Spill (spilling)" means any loss of control or release of oil or other hazardous substance that moves or is capable of moving into the aquatic environment.

(86) "Standard of performance" means a standard for the control of the discharge of pollutants which reflects the greatest degree of effluent reduction achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives as established by the State or the Environmental Protection Agency.

(87) "State" means the State of Maryland.

(88) "Stream flow" means the nontidal water movement that occurs in a natural channel.

(89) "Sub-basin" means one of the 20 watershed areas delineated by the Department and comprising, in sum total, the surface waters of the State.

(89-1) "Submerged aquatic vegetation (SAV; underwater bay grass)" means rooted vascular plants that generally grow beneath the water surface, but may have leaves that extend to, and grow on, the surface of the water.

(89-2) "Subpycnocline" means waters that occur below the lower level of the pycnocline.

(90) "Surface waters" means all waters of this State which are not ground waters.

(91) "Thermal barrier" means a pattern of artificially created temperature change and distribution.

(91-1) "Tidal fresh" means tidal waters with salinities from 0 to less than 0.5 parts per thousand.

(92) "Tidal water" means water subject to regular or periodic tidal action.

(93) "Toxic substance" means any liquid, gaseous, or solid substance in a concentration which, when applied to, discharged to, or deposited in the waters of this State, may, in the judgment of the Department, exert a detrimental effect on humans or on the propagation, cultivation, or conservation of terrestrial or aquatic life.

(94) "Transmissivity of an aquifer" means the rate at which water of the prevailing kinematic viscosity is transmitted through a unit width of the aquifer under a unit hydraulic gradient.

(95) "Treatment works" means any plant or other works used for the purpose of treating, or stabilizing, wastes.

(95-1) "Use Class" means the combination of waterbody type (e.g. non-tidal) and designated uses given to each waterbody.

(96) "Vessel" means every watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on the waters of this State.

(97) "Waste load allocation" means the identification and allotment by the Department of quantities of residual wastes which may be discharged from point sources. This allotment shall include:

- (a) Limits on the quantities of wastes which may be discharged;
- (b) Consideration of seasonal variations;
- (c) A margin of safety; and
- (d) The contribution of non-point sources.

(98) "Waste" means industrial waste and all other liquid, gaseous, solid, or other substances which will pollute any waters of this State.

(99) "Wastewater" means any:

- (a) Liquid waste substance derived from industrial, commercial, municipal, residential, agricultural, recreational, or other operations or establishments; and
- (b) Other liquid waste substance containing liquid, gaseous, or solid matter and having characteristics which will pollute any waters of the State.

(100) "Water" means the liquid substance which is derived from a ground water source, a surface source, or any combination of these sources, and which will be discharged, without change in quality, into the waters of this State, with the exception of storm water runoff.

(100-1) "Water clarity" means a relative measure of the ability of water to transmit light, expressed as a percentage of light penetrating the water in terms of expected Secchi depth for the defined waterbody.

(100-2) "Water quality criteria" means the numeric threshold or narrative description of a water quality parameter that would be expected to support and protect a particular designated use.

(101) "Water quality limited waters" means shellfish waters and other waters of this State for which BAT for industrial discharges and secondary treatment for sewage discharges is not sufficiently stringent to maintain applicable water quality standards.

(102) "Watercourse" means a specific body or channel of water which is part of the waters of this State.

(103) "Waters of this State" includes:

- (a) Both surface and underground waters within the boundaries of this State subject to its jurisdiction, including that part of the Atlantic Ocean within the boundaries of this State, the Chesapeake Bay and its tributaries, and all ponds, lake, rivers, streams, tidal and nontidal wetlands, public ditches, tax ditches, and public drainage systems within this State, other those designed and used to collect, convey, or dispose of sanitary sewage;
- (b) The flood plain of free-flowing waters determined by the Department of Natural Resources on the basis of the 100-year flood frequency.

.02 Principles of Water Pollution Control.

A. General. In the exercise of its responsibilities to improve, conserve, and manage the quality of the waters of the State, the Department recognizes and shall utilize the general principles set forth in this regulation for decision making and action.

B. Sampling and Analysis.

(1) Samples shall be collected, and preserved as necessary, using procedures and precautions as specified in "Guidelines Establishing Test Procedures for Analysis of Pollutants" (40 CFR 136) as amended.

(2) Collections shall be made by trained personnel in such manner and place, and of such type, number, and frequency as to assure that samples:

(a) Are representative of prevailing conditions; and

(b) Will accurately reflect, upon analysis, the effect of any discharges to the waters of the State.

(3) Analysis shall be performed according to procedures and precautions described in the above-mentioned "Guidelines Establishing Test Procedures for Analysis of Pollutants".

C. Waste Load Allocation.

(1) If the Department determines that compliance with the established water quality standards or nutrient control requirements cannot be achieved through the application of best practicable control technology currently available for all industrial discharges and secondary treatment for all sewage discharges within a specific river segment or water region, the Department shall impose additional restrictions in a State Discharge Permit which designate for each point source maximum quantities of wastes which may be discharged to those receiving waters.

(2) In making the necessary allocations and determinations, the Department shall consider the relative contributions of all sources, existing and planned, including non-point sources, required control for point sources, and the potential of control for non-point sources.

D. Best Practicable Control Technology Currently Available. The State shall require the use of best practicable control technology currently available, to achieve a level of water pollution control which produces the least impact on the environment. This technology includes procedures, practices, facilities, equipment, instrumentation, and supplies for which:

(1) Technical and economic feasibility is established to the satisfaction of the Department; and

(2) Conditions and requirements for use have been established by the administrator of the Environmental Protection Agency in accordance with regulations promulgated pursuant to the Federal Water Pollution Control Act, as amended, Title 33, U.S.C.

E. Public Participation.

(1) Although primary responsibility for water quality decision making is vested by law in public agencies at the various levels of government, active public involvement throughout the intergovernmental decision-making process shall be encouraged and utilized to accomplish the objectives of State and federal laws and regulations.

(2) The Department shall make a maximum effort to seek out and involve the interested public both at the preliminary stage and throughout the process of development of regulations, plans, and other program actions.

(3) Public meetings and citizen information and education programs on water quality shall be encouraged and assisted as a legitimate and necessary function of federal and State administration of pertinent laws and regulations.

(4) The major objectives of public participation include greater responsiveness of governmental actions to public concerns and priorities, and improved popular understanding and support of often complex and difficult official programs and actions.

Administrative History

Effective date: September 1, 1974 (1:1 Md. R. 33)

Annotation: Regulations .01—.06 and .08—.13 were transferred from the Department of Natural Resources (COMAR 08.05.04) pursuant to Executive Order 01.01.1980.04, effective July 1, 1980 (7:13 Md. R. 1277)

Annotation: COMAR 10.50.01 cited in *Harcum v. Department of Health and Mental Hygiene*, Circuit Court for Wicomico County, Docket No. CG 2/42 (March 18, 1985)

Annotation: COMAR 10.50.01.08H cited in *Citizens for Rewastico Creek v. Commissioners of Hebron*, 67 Md. App. 466 (1986)

Annotation: COMAR 10.50.01.01 and .11 recodified to COMAR 26.08.01.01 and .02, respectively.

Regulation .01 amended effective August 3, 1981 (8:15 Md. R. 1308)

Regulation .01A amended effective January 28, 1985 (12:2 Md. R. 141)

Regulation .01B amended effective December 5, 1974 (1:6 Md. R. 278); April 21, 1978 (5:8 Md. R. 593); May 24, 1982 (9:10 Md. R. 1022); June 6, 1983 (10:11 Md. R. 976); December 19, 1983 (10:25 Md. R. 2269); January 28, 1985 (12:2 Md. R. 141); August 26, 1985 (12:17 Md. R. 1706); February 19, 1990 (17:3 Md. R. 301); April 16, 1990 (17:7 Md. R. 854); June 7, 1993 (20:11 Md. R. 917); January 2, 1995 (21:26 Md. R. 2195); November 6, 1995 (22:22 Md. R. 1670); August 29, 2005 (32:17 Md. R. 1440); January 12, 2009 (36:1 Md. R. 24); April 19, 2010 (37:8 Md. R. 619); April 28, 2014 (41:8 Md. R. 474); November 23, 2015 (42:23 Md. R. 1435); June 18, 2018 (45:12 Md. R. 619)

Regulation .02 amended effective April 21, 1978 (5:8 Md. R. 593); July 11, 1980 (7:14 Md. R. 1348)

Title 26 DEPARTMENT OF THE ENVIRONMENT

Subtitle 08 WATER POLLUTION

Chapter 02 Water Quality

**Authority: Environment Article, §§9-303.1, 9-313 — 9-316, 9-319, 9-320 — 9-325,
9-327, and 9-328, Annotated Code of Maryland**

.01 Surface Water Quality Protection.

A. Purpose. To protect surface water quality, this State shall adopt water quality standards to:

- (1) Protect public health or welfare;
- (2) Enhance the quality of water;
- (3) Protect aquatic resources; and
- (4) Serve the purposes of the Federal Act.

B. Water Quality Standards.

(1) The surface water quality standards consist of three parts:

- (a) Designated uses of the waters of this State;
- (b) Water quality criteria to protect the designated uses; and
- (c) Antidegradation Policy.

(2) Water quality standards shall provide water quality for the designated uses of:

- (a) Water contact recreation;
- (b) Fishing;
- (c) Propagation of fish, other aquatic life, and wildlife; and
- (d) Agricultural and industrial water supply.

(3) Waters of this State shall be protected for the basic designated uses in Regulation .02A.

(4) Water quality standards shall consider the use and value of public water supplies.

(5) Regulations .02—.08 of this chapter implement this State's water quality standards by:

(a) Defining and establishing specific designated uses for the surface waters of this State;

- (b) Assigning a designated use to all surface waters;
- (c) Establishing water quality criteria for each designated use;
- (d) Defining this State's antidegradation policy;
- (e) Defining this State's criteria for mixing zones; and
- (f) Defining other water quality protective policies.

.02 Designated Uses.

A. General.

(1) The determination of the designated use of a water body shall include consideration of the following factors:

- (a) Existing conditions; and
- (b) Potential uses which may be made possible by anticipated improvements in water quality.

(2) The actual uses of surface water are not limited to those designated in this chapter. Any reasonable and lawful use is permitted provided that the surface water quality is not adversely affected by the use.

B. Specific Designated Use Classes.

(1) Class I: Water Contact Recreation, and Protection of Nontidal Warmwater Aquatic Life. This class designation includes waters that are suitable for:

- (a) Water contact sports;
- (b) Play and leisure time activities where individuals may come in direct contact with the surface water;
- (c) Fishing;
- (d) The growth and propagation of fish (other than trout), other aquatic life, and wildlife;
- (e) Agricultural water supply; and
- (f) Industrial water supply.

(2) Class I-P: Water Contact Recreation, Protection of Aquatic Life, and Public Water Supply. This class designation includes:

- (a) All uses identified for Class I; and
- (b) Use as a public water supply.

(3) Class II: Support of Estuarine and Marine Aquatic Life and Shellfish Harvesting. This class designation includes all applicable uses identified for Class I in:

- (a) All tidally influenced waters of the Chesapeake Bay and tributaries, the Coastal Bays, and the Atlantic Ocean to the 3-nautical-mile boundary; and
- (b) Tidally influenced waters that are or have the potential for:
 - (i) Shellfish propagation and storage, or harvest for marketing purposes; and
 - (ii) Actual or potential areas for the harvesting of oysters, soft-shell clams, hard-shell clams, and brackish water clams.

(4) Class II-P: Tidal Fresh Water Estuary. This class designation includes:

- (a) All uses identified for Class II waters; and
- (b) Use as a public water supply.

(5) Class III: Nontidal Cold Water. This class designation includes all uses identified for Class I and waters which have the potential for or are suitable for the growth and

propagation of self-sustaining trout populations and other coldwater obligate species including, but not limited to the stoneflies tallaperla and sweltsa.

(6) Class III-P: Nontidal Cold Water and Public Water Supply. This class designation includes:

- (a) All uses identified for Class III waters; and
- (b) Use as a public water supply.

(7) Class IV: Recreational Trout Waters. This class designation includes all uses identified for Class I in cold or warm waters that have the potential for or are:

- (a) Capable of holding or supporting adult trout for put-and-take fishing; and
- (b) Managed as a special fishery by periodic stocking and seasonal catching.

(8) Class IV-P: Recreational Trout Waters and Public Water Supply. This class designation includes:

- (a) All uses identified for Class IV waters; and
- (b) Use as a public water supply.

.02-1 Support of Estuarine and Marine Aquatic Life and Shellfish Harvesting.

A. Class II includes the subcategories of designated uses described in this section.

B. Shellfish Harvesting. This subcategory includes waters where there are:

(1) Actual or potential areas for the harvesting of oysters, soft-shell clams, hard-shell clams, or brackish water clams; or

(2) Actual or potential areas suitable for the propagation or storage of oysters, hard-shell clams, soft-shell clams, and brackish water clams for marketing purposes, except areas excluded by the Department.

C. Seasonal Migratory Fish Spawning and Nursery Subcategory. This subcategory includes waters of the Chesapeake Bay and its tidal tributaries that have the potential for or are supporting the survival, growth, and propagation of balanced indigenous populations of ecologically, recreationally, and commercially important anadromous, semi-anadromous and tidal-fresh resident fish species inhabiting spawning and nursery grounds from February 1 through May 31.

D. Seasonal Shallow-Water Submerged Aquatic Vegetation Subcategory. This subcategory includes:

(1) Tidal fresh waters of the Chesapeake Bay and its tidal tributaries that have the potential for or are supporting the survival, growth, and propagation of rooted, underwater bay grasses in tidally influenced waters from April 1 through October 1; and

(2) Low salinity (oligohaline and mesohaline) waters of the Chesapeake Bay and its tidal tributaries that have the potential for or are supporting the survival, growth, and propagation of rooted, underwater bay grasses in tidally influenced waters from April 1 through October 1.

E. Open-Water Fish and Shellfish Subcategory.

(1) This subcategory includes waters of the Chesapeake Bay and its tidal tributaries that have the potential for or are supporting the survival, growth, and propagation of balanced, indigenous populations of ecologically, recreationally, and commercially important fish and shellfish species inhabiting open-water habitats.

(2) This subcategory applies from June 1 to September 30 in tidally influenced waters from the shoreline to the adjacent shoreline (and from the shoreline to the opposite shoreline), and from the surface to the measured boundary of the pycnocline, if the pycnocline prevents oxygen replenishment, otherwise the subcategory is applied from the surface to the bottom.

(3) If a pycnocline exists but other physical circulation patterns, such as the inflow of oxygen-rich oceanic bottom waters, provide oxygen replenishment to the deep waters, the open-water fish and shellfish designated use extends to the bottom.

(4) From October 1 through May 31, the boundaries of the open-water designated use include all tidally influenced waters from the shoreline measured from the shoreline to the adjacent or opposite shoreline and down to the bottom.

F. Seasonal Deep-Water Fish and Shellfish Subcategory. This subcategory includes waters of the Chesapeake Bay and its tidal tributaries that have the potential for or are supporting the survival, growth, and propagation of balanced, indigenous populations of important fish and shellfish species inhabiting deep-water habitats as described as follows:

(1) One of the following applies:

(a) From June 1 through September 30 in tidally influenced waters located between the measured depths of the upper and lower boundaries of the pycnocline, where a pycnocline is present and presents a barrier to oxygen replenishment; or

(b) From June 1 through September 30 from the upper boundary of the pycnocline down to the sediment/water interface at the bottom, where a lower boundary of the pycnocline cannot be calculated due to the depth of the water column; and

(2) From October 1 to May 31, the open water fish and shellfish subcategory designated use applies.

G. Seasonal Deep-Channel Refuge Use.

(1) This subcategory includes waters of the Chesapeake Bay and its tidal tributaries that have the potential for or are supporting the survival of balanced, indigenous populations of ecologically important benthic infaunal and epifaunal worms and clams, which provide food for bottom-feeding fish and crabs.

(2) This subcategory applies from June 1 through September 30 in tidally influenced waters located below the measured lower boundary of the pycnocline to the bottom where a measured pycnocline is present and presents a barrier to oxygen replenishment.

(3) From October 1 to May 31, the open water fish and shellfish subcategory designated use applies.

.03 Surface Water Quality Criteria.

A. Applicability.

(1) Surface water quality criteria shall apply:

(a) In fresh water streams and rivers:

(i) For toxic substances, under the conditions stipulated in Regulations .03-2A and .05A, and

(ii) Under design stream flow for all other substances;

(b) In tidal waters:

(i) For toxic substances, under the conditions stipulated in Regulations .03-2A and .05A, and

(ii) Under average tidal conditions during design stream flows for all other substances;

(c) Outside of any mixing zones which may be designated by the Department.

(2) If the natural water quality of a stream segment is not consistent with the criteria established for the stream then:

(a) The natural conditions do not constitute a violation of the water quality standards; and

(b) The water quality to be maintained and achieved is not required to be substantially different from that which would occur naturally.

(3) When coal remining permits are issued under §301 of the Federal Water Pollution Control Act (33 U.S.C. §1311), a variance to the specific water quality criteria for pH, iron, and manganese in the State's water quality standards may be given at the discretion of the Department for the duration of the remining activity. This variance may not be given if there is no demonstrated potential for improved water quality from the remining operation and if degradation of existing in-stream conditions is likely to occur.

B. General Water Quality Criteria. The waters of this State may not be polluted by:

(1) Substances attributable to sewage, industrial waste, or other waste that will settle to form sludge deposits that:

(a) Are unsightly, putrescent, or odorous, and create a nuisance, or

(b) Interfere directly or indirectly with designated uses;

(2) Any material, including floating debris, oil, grease, scum, sludge, and other floating materials attributable to sewage, industrial waste, or other waste in amounts sufficient to:

(a) Be unsightly;

(b) Produce taste or odor;

(c) Change the existing color to produce objectionable color for aesthetic purposes;

(d) Create a nuisance; or

(e) Interfere directly or indirectly with designated uses;

(3) High temperature or corrosive substances attributable to sewage, industrial waste, or other waste in concentrations or combinations which:

(a) Interfere directly or indirectly with designated uses, or

(b) Are harmful to human, animal, plant, or aquatic life;

(4) Acute toxicity from any discharge outside the mixing zone established under Regulation .05 of this chapter for the application of acute criteria for protection of aquatic life; and

(5) Toxic substances attributable to sewage, industrial wastes, or other wastes in concentrations outside designated mixing zones, which:

(a) Interfere directly or indirectly with designated uses, or

(b) Are harmful to human, plant, or aquatic life.

.03-1 Toxic Substance Water Quality Criteria for Surface Waters.

A. General.

(1) Numerical toxic substance criteria for ambient surface waters are established to protect human health or aquatic life.

(2) Four types of numerical toxic substance criteria shall be adopted. The purpose of these criteria is to protect:

- (a) Human health through ingestion of public water supplies;
- (b) The wholesomeness of fish for human consumption;
- (c) Fresh, estuarine, and salt water aquatic life from acute toxicity impacts; and
- (d) Fresh, estuarine, and salt water aquatic life from chronic toxicity impacts.

B. Fresh Water, Estuarine, and Salt Water Boundaries.

(1) For any toxic substance for which no estuarine criteria appear in Regulation .03-2G, Table 1, the salt water criteria apply in estuarine waters.

(2) Fresh water and estuarine or salt water boundaries begin at specific points for the purpose of applying the numerical toxic substance criteria for aquatic life protection. These points are:

(a) The stream segment and all tributaries which confluence with the stream segment upstream from the boundaries specified in §B(3) of this regulation are assumed to be fresh water.

(b) Except for Sub-Basin 02-13-01—Coastal Area, the stream segment and all tributaries which confluence with the stream segment downstream from the boundaries specified in §B(3) of this regulation are assumed to be estuarine water.

(c) In Sub-Basin 02-13-01—Coastal Area, the stream segment and all tributaries which confluence with the stream segment downstream from the boundaries specified in §B(3) of this regulation are assumed to be salt water.

(d) Tributary headwaters. Since the headwaters of some tributaries to stream segments designated as estuarine or salt water may be fresh, the Department may:

(i) Require the discharger to provide site specific salinity measurements or accept site specific salinity measurements provided voluntarily by the applicant; and

(ii) Review the information provided in §B(2)(d)(i) of this regulation, and determine that the area is more appropriately designated as fresh water.

(3) For the purpose of applying numerical toxic substance criteria, the following are designated as the boundaries between fresh waters and estuarine or salt waters:

(a) Lower Susquehanna River Area (Sub-Basin 02-12-02)—All waters are fresh waters.

(b) Coastal Area (Sub-Basin 02-13-01) boundaries are:

- (i) Bishopville Prong—State boat ramp at Daye Road;
- (ii) Birch Branch—Route 113;
- (iii) Middle Branch—Route 113;
- (iv) Church Branch—Route 113;

- (v) Turville Creek—Route 589;
 - (vi) Ayer Creek—Route 376;
 - (vii) Newport Creek—Hayes Landing Road; and
 - (viii) Poplartown Creek—Beaverdam Creek Road.
- (c) Pocomoke River Area (Sub-Basin 02-13-02) boundaries are:
- (i) Pocomoke River—A line connecting the mouth of Bullbegger Creek and the east entrance of Fair Hill Channel; and
 - (ii) Manokin River—Sharps Point.
- (d) Nanticoke River Area (Sub-Basin 02-13-03) boundaries are:
- (i) Nanticoke River—A line connecting Newfoundland Point and Hat Crown Point (includes Marshyhope Creek);
 - (ii) Wicomico River—A line connecting Pine Beach and Holland Point;
 - (iii) Blackwater River—Mouth at Snake Island; and
 - (iv) Transquaking River—Mouth at Fishing Bay.
- (e) Choptank River Area (Sub-Basin 02-13-04) boundary is a line connecting Bow Knee Point and Wrights Wharf.
- (f) Chester River Area (Sub-Basin 02-13-05) boundaries are:
- (i) Chester River—A line connecting Piney Grove and Primrose Point;
 - (ii) Grays Inn Creek—A line crossing the creek at Cherry Tree Point;
 - (iii) Herringtown Creek—All waters are fresh;
 - (iv) West Fork Langford Creek—A line crossing creek at Fox Point;
 - (v) East Fork Langford Creek—A line connecting Piney Point and Longmarsh Point;
 - (vi) Philip Creek—All waters are fresh;
 - (vii) Reed Creek—Tilghmans Neck Road;
 - (viii) Corsica Creek—A line crossing the creek at Jacobs Nose;
 - (ix) Emory Creek—All waters are estuarine water; and
 - (x) All tributaries to the Chester River upstream from Deep Point.
- (g) Elk River Area (Sub-Basin 02-13-06)—All waters are fresh water.
- (h) Bush River Area (Sub-Basin 02-13-07)—All waters are fresh water.
- (i) Gunpowder River Area (Sub-Basin 02-13-08)—All waters are fresh water.
- (j) Patapsco River Area (Sub-Basin 02-13-09) boundaries are:
- (i) Patapsco River—A line connecting Lazaretto Point and the southern terminus of the Baltimore Harbor Tunnel; and
 - (ii) Back River—a line connecting Rocky Point and Cuckhold Point.

(k) West Chesapeake Bay Area (Sub-Basin 02-13-09) boundaries are:

- (i) Severn River—Bridge on State Highway 3;
- (ii) All tributaries to the Severn River upstream from MD Route 648;
- (iii) Magothy River—A line connecting Henderson Point and Pea Patch Point;
- (iv) All tributaries to the Magothy River are fresh water; and
- (v) South River—A line drawn due north from Beards Point.

(l) Patuxent River Area (Sub-Basin 02-13-11) boundary is a line connecting Chalk Point and God's Grace Point.

(m) Lower Potomac River Area (Sub-Basin 02-14-01) boundaries are:

- (i) Potomac River—A line connecting Upper Cedar Point and Chotank Creek; and
- (ii) All Maryland tributaries of the Potomac River upstream from St. Catherine Island are fresh water.

(n) Washington Metropolitan Area (Sub-Basin 02-14-02)—All waters are fresh water.

(o) Middle Potomac River Area (Sub-Basin 02-14-03)—All waters are fresh water.

(p) Upper Potomac River Area (Sub-Basin 02-14-05)—All waters are fresh water.

(q) North Branch Potomac River Area (Sub-Basin 02-14-10)—All waters are fresh water.

(r) Youghiogheny River Area (Sub-Basin 05-02-02)—All waters are fresh water.

(s) Conewago Creek Area (Sub-Basin 02-05-03)—All waters are fresh water.

(t) Chesapeake Bay Proper (Sub-Basin 02-13-99) boundary is a line connecting Booby Point (39.284206 north latitude, -76.381400 west longitude) with Handy's Point (39.291944 north latitude, -76.181388 west longitude).

.03-2 Numerical Criteria for Toxic Substances in Surface Waters.

A. Numerical toxic substance criteria shall be applied:

- (1) In intermittent streams, at the end of the discharge pipe; and
- (2) In all other water bodies, at the edge of the mixing zones determined in accordance with Regulation .05C—E of this chapter.

B. Acceptable laboratory methods for the detection and measurement of toxic substances shall be specified by the Department.

C. Site-specific numerical toxic substance criteria may be developed on a site-specific basis. A person who wishes to develop a site-specific numerical toxic substance criterion shall:

- (1) Do so in accordance with a scientifically defensible methodology approved by the Department; and
- (2) Notify the Department of their intent not later than the time specified in COMAR 26.08.04.01-1.

D. The toxicity of certain substances in Tables 1 and 6 of §G of this regulation is increased or decreased by hardness or pH. For these toxic substances:

- (1) The Department may:
 - (a) Require the discharger to provide site-specific measurements; or
 - (b) Recalculate the aquatic life criteria based on available water quality data.
- (2) The permittee may voluntarily provide site-specific information for the recalculation of the criteria. It is within the Department's discretion to determine the weight given this information.
- (3) After reviewing the information provided in §D(1) or (2), the Department shall determine if one or more of these criteria should be modified at a particular location.
- (4) For calculation of site-specific copper criteria, a discharger may use the Biotic Ligand Model in accordance with "Aquatic Life Ambient Freshwater Quality Criteria-Copper 2007 Revision (EPA-822-R-07-001, February 2007)" which is incorporated by reference.

E. In those cases where numerical toxic substance criteria for aquatic life protection and protection of human health both apply, the most restrictive of the criteria shall be used.

F. Acute and chronic numeric toxic substance criteria for fresh, estuarine, and salt water aquatic life protection and for human health protection are shown in Tables 1—6 of §G. For the instream application of the acute and chronic criteria for the protection of aquatic life in Tables 1—6 of §G of this regulation:

- (1) The metals shall be measured as dissolved metal or as biologically available equivalence and may be translated to total recoverable measurements for waste load allocation to derive discharge permit limits using the procedures for the biological translator or chemical translator described in COMAR 26.08.04;
- (2) The organic substances shall be measured directly or as biologically available equivalence and may be translated for waste load allocation to derive discharge permit limits using the procedures for the biological translator described in COMAR 26.08.04; and
- (3) Cyanide shall be measured as either free cyanide or cyanide amenable to chlorination.

G. Tables of Ambient Water Quality Criteria.

(1) Table 1. Toxic Substances Criteria for Ambient Surface Waters — Inorganic Substances.

Substance	CAS#	Aquatic Life (µg/L)						Human Health for Consumption of:		
		Fresh Water		Estuarine Water		Salt Water		Drinking Water + Organism (µg/L)	Organism Only (µg/L)	Drinking Water MCL (mg/L)
		Acute	Chronic	Acute	Chronic	Acute	Chronic			
Antimony	7440360							5.6	640	0.006
Arsenic	7440382	340	150			69	36	0.18 ^d	1.4 ^{a,d}	0.010
Asbestos	1332214								7 million fibers/L	7 million fibers/L
Barium	7440393							1,000		2
Beryllium								4		0.004
Cadmium ¹	7440439	1.8	0.72			33.13	7.9	5		0.005
Chlorine ²	7782505	19	11			13	7.5			
Chromium (total)	7440473							100		0.1
Chromium III ¹	16065831	570	74							
Chromium VI	18540299	16	11			1100	50			
Copper ¹	7440508	13	9	6.1		4.8	3.1	1,300 ^d		1.3 ^c
Cyanide	57125	22	5.2			1	1	140	140	0.2
Lead ¹	7439921	65	2.5			210	8.1			0.015 ^c
Mercury	7439976	1.4	0.77			1.8	0.94			0.002
Methylmercury ^b	22967926								0.3 mg/kg in fish tissue	
Nickel ¹	7440020	470	52			74	8.2	610	4,600	
Selenium	7782492	20	5			290	71	170	4,200	0.05
Silver ¹	7440224	3.2				1.9				0.10
Thallium	7440280							0.24	0.47	0.002
Zinc ¹	7440666	120	120			90	81	7,400	26,000	

¹ Refer to §D of this regulation.

² The more stringent of these criteria or the discharge requirements in COMAR 26.08.03.06 shall be used as the basis for determining discharge permit limitations.

a This criterion will be applied against the actual measurement of inorganic arsenic (As+3) rather than total arsenic.

b Per EPA recommendation, total mercury concentrations, as opposed to methylmercury, will be used in MDE fish consumption risk-calculation. This approach is deemed to be most protective of human health and most cost-effective.

c Lead and Copper are regulated by a treatment technique that requires systems to control the corrosiveness of their water. If more than 10 percent of tap water samples exceed the action level, water systems must take additional steps. The values listed are technically action levels.

d Criterion is based on a carcinogenic risk level of 10⁻⁵.

* Drinking water MCLs apply to Public Water Supply designated waters only.

(2) Table 2. Coefficients Used to Adjust Applicable Numerical Toxic Substance Fresh Water Aquatic Life Criteria. *

Substance	CAS#	mA	bA	mC	bC
Cadmium	7440439	0.9789	-3.866	0.7977	-3.909
Chromium III	16065831	0.8190	3.7256	0.8190	0.6848
Lead	7439921	1.273	-1.460	1.273	-4.705
Nickel	7440020	0.8460	2.255	0.8460	0.0584
Silver	7440224	1.72	-6.59	-	-
Zinc	7440666	0.8473	0.884	0.8473	0.884

(3) Table 3. Conversion Factors Used to Adjust Applicable Numerical Toxic Substance Fresh Water Aquatic Life Criteria.

Substance	CAS#	Freshwater Acute Conversion Factor (CF)	Freshwater Chronic Conversion Factor (CF)
Cadmium	7440439	1.136672-LN(Hardness)*0.041838	1.101672-LN(Hardness)*0.041838
Chromium III	16065831	0.316	0.86
Lead	7439921	1.46203-LN(Hardness)*0.145712	1.46203-LN(Hardness)*0.145712
Nickel	7440020	0.998	0.997
Silver	7440224	0.85	-
Zinc	7440666	0.978	0.986

*Hardness-dependent criteria may be calculated from the following:

Acute Criteria = $e^{mA \cdot \ln(\text{hardness}) + bA} \cdot CF$

Chronic Criteria = $e^{mC \cdot \ln(\text{hardness}) + bC} \cdot CF$

(4) Table 4. Toxic Substances for Ambient Water Quality Criteria — Organic Compounds.

Substance	CAS#	Aquatic Life (µg/L)				Human Health for Consumption of:		
		Fresh Water		Salt Water		Drinking Water + Organism (µg/L)	Organism Only (µg/L)	Drinking Water MCL (mg/L)
		Acute	Chronic	Acute	Chronic			
1,1 Dichloroethylene (DCE)	75354					300	20000	0.007
1,1,1-Trichloroethane (TCA)	71556					200		0.2
1,1,2,2-Tetrachloroethane	79345					1.7 ^a	40 ^a	
1,1,2-Trichloroethane	79005					5.9 ^a	160 ^a	0.005
1,2,4-Trichlorobenzene	120821					35 ^a	70 ^a	0.07
1,2,4,5-Tetrachlorobenzene	95943					0.03	0.03	
1,2-Dichlorobenzene	95501					1000	3000	0.6
1,2-Dichloroethane	107062					99 ^a	6500 ^a	0.005
1,2-Dichloropropane	78875					5 ^a	150 ^a	0.005
1,2-Diphenylhydrazine	122667					0.3 ^a	2 ^a	
1,2-Trans-Dichloroethylene	156605					100	4000	0.1
1,3-Dichlorobenzene	541731					320	960	
1,3-Dichloropropene	542756					3.4 ^a	210 ^a	
1,4-Dichlorobenzene	106467					300	900	0.075
2,4,5-Trichlorophenol	95954					300	600	
2,4,6-Trichlorophenol	88062					14 ^a	24 ^a	
2,4-Dichlorophenol	120832					77	290	
2,4-Dimethylphenol	105679					100	3000	
2,4-Dinitrotoluene	121142					1.1 ^a	34 ^a	
2-Chloronapthalene	91587					800	1000	
2-Chlorophenol	95578					81	150	
2-Methyl-4,6-Dinitrophenol	534521					2	30	
3,3'-Dichlorobenzidine	91941					0.49 ^a	1.5 ^a	
3-Methyl-4-Chlorophenol	59507					500	2000	
Acrolein	107028	3	3			6	9	
Acrylonitrile	107131					0.61 ^a	70 ^a	

Benzene	71432					22 ^a	510 ^a	0.005
Benzidine	92875					0.0014 ^a	0.11 ^a	
Bis(2-Chloroethyl) Ether	111444					0.3 ^a	22 ^a	
Bis2(Chloroisopropyl) Ether	108601					200	4000	
Bis(Chloromethyl) Ether	542881					0.0015 ^a	0.17 ^a	
Bromoform ¹	75252					See Trihalomethanes	1400 ^a	
Carbon tetrachloride	56235					4 ^a	50 ^a	0.005
Chlorobenzene	108907					130	1600	0.1
Chlorodibromomethane ¹	124481					8 ^a	210 ^a	
Chloroform ¹	67663					60	2000	
Chlorophenoxy Herbicide (2,4-D)	94757					1300	12000	
Chlorophenoxy Herbicide (2,4,5-TP)	93721					100	400	
Dichlorobromomethane ¹	75274					See Trihalomethanes	170 ^a	
Dinitrophenols	25550587					10	1000	
Ethylbenzene	100414					530	2100	0.7
Hexachlorobenzene	118741					0.00079 ^a	0.00079 ^a	0.001
Hexachlorobutadiene	87683					4.4 ^a	180 ^a	
Hexachlorocyclopenta-diene	77474					4	4	0.05
Hexachloroethane	67721					14 ^a	33 ^a	
Hexachlorocyclohexane (HCH)-Technical	608731					0.066 ^a	0.1 ^a	
Isophorone	78591					340 ^a	18000 ^a	
Methoxychlor	72435					0.02	0.02	
Methyl bromide	74839					100	10000	
Methylene chloride	75092					200 ^a	10000 ^a	0.005
Nitrobenzene	98953					10	600	
N-Nitrosodimethylamine	62759					0.0069 ^a	30 ^a	
N-Nitrosodi-n-Propylamine	621647					0.05 ^a	5.1 ^a	
N-Nitrosodiphenylamine	86306					33 ^a	60 ^a	
Nonylphenol	84852153	28	6.6	7	1.7			
Phenol	108952					4000	300000	

Tetrachloroethylene	127184					100 ^a	290 ^a	0.005
Toluene	108883					1300	15000	1
Trichloroethylene (TCE)	79016					6 ^a	70 ^a	0.005
Trihalomethanes ¹						80		0.08
Vinyl chloride	75014					0.22 ^a	16 ^a	0.002

¹ Four compounds (bromoform, chlorodibromomethane, chloroform, and dichlorobromomethane) are found in combination and comprise a category of contaminants called "trihalomethanes" formed as a result of drinking water disinfection. The concentration of any of these compounds individually, or all of them in sum, may not exceed 80 micrograms per liter. This criterion is equal to the Safe Drinking Water Act Maximum Contaminant Level.

^a Criterion is based on a carcinogenic risk level of 10^{-5} .

* Drinking water MCLs apply to Public Water Supply designated waters only.

(5) Table 5. Toxic Substances for Ambient Water Quality Criteria-Polycyclic Aromatic Hydrocarbons and Phthalates.

Substance	CAS#	Aquatic Life (µg/L)				Human Health for Consumption of:		
		Fresh Water		Salt Water		Drinking Water + Organism (µg/L)	Organism Only (µg/L)	Drinking Water MCL (mg/L)
		Acute	Chronic	Acute	Chronic			
Acenaphthene	83329					70	90	
Anthracene	120127					300	400	
Benzo(a)Anthracene	56553					0.012 ^a	0.013 ^a	
Benzo(a)Pyrene	50328					0.0012 ^a	0.0013 ^a	0.0002
Benzo(b)Fluoranthene	205992					0.012 ^a	0.013 ^a	
Benzo(k)Fluoranthene	207089					0.12 ^a	0.13 ^a	
Chrysene	218019					0.038 ^a	0.18 ^a	
Dibenzo(a,h)Anthracene	53703					0.0012 ^a	0.0013 ^a	
Fluoranthene	206440					20	20	
Fluorene	86737					50	70	
Ideno(1,2,3-cd)Pyrene	193395					0.012 ^a	0.013 ^a	
Pyrene	129000					20	30	
Bis(2-Ethylhexyl) Phthalate	117817					3.2 ^a	3.7 ^a	0.006

Butylbenzyl Phthalate	85687					1 ^a	1 ^a	
Diethyl Phthalate	84662					600	600	
Dimethyl Phthalate	131113					2000	2000	
Di-n-Butyl Phthalate	84742					20	30	

^a Criterion is based on a carcinogenic risk level of 10^{-5} .

* Drinking water MCLs apply to Public Water Supply designated waters only.

(6) Table 6. Toxic Substances for Ambient Water Quality Criteria — Pesticides and Chlorinated Compounds.

Substance	CAS#	Aquatic Life (µg/L)				Human Health for Consumption of:		
		Fresh Water		Salt Water		Drinking Water + Organism (µg/L)	Organism Only (µg/L)	Drinking Water MCL (mg/L)
		Acute	Chronic	Acute	Chronic			
2, 3, 7, 8-TCDD (Dioxin)	1746016					0.00000005 ^a	0.00000051 ^a	3×10^{-7}
4,4'-DDD	72548					0.0012 ^a	0.0012 ^a	
4,4'-DDE	72559					0.0018 ^a	0.0018 ^a	
4,4'-DDT	50293	1.1	0.001	0.13	0.001	0.0003 ^a	0.0003 ^a	
Aldrin	309002	3		1.3		0.0000077 ^a	0.0000077 ^a	
alpha-BHC	319846					0.036 ^a	0.039 ^a	
alpha-Endosulfan	959988	0.22	0.056	0.034	0.0087	20	30	
Atrazine	1912249					3		0.003
beta-BHC	319857					0.08 ^a	0.14 ^a	
beta-Endosulfan	33213659	0.22	0.056	0.034	0.0087	20	40	
Carbaryl	63252	2.1	2.1	1.6				
Chlordane	57749	2.4	0.0043	0.09	0.004	0.0031 ^a	0.0032 ^a	0.002
Chlorpyrifos	2921882	0.083	0.041	0.011	0.0056			
Diazinon	333415	0.17	0.17	0.82	0.82			
Dieldrin	60571	0.24	0.056	0.71	0.0019	0.000012 ^a	0.000012 ^a	
Endosulfan Sulfate	1031078					20	40	
Endrin	72208	0.086	0.036	0.037	0.0023	0.059	0.060	0.002
Endrin Aldehyde	7421934					1	1	
gamma-BHC (Lindane)	58899	0.95		0.16		4.2	4.4	0.0002

Heptachlor	76448	0.52	0.0038	0.053	0.0036	0.000059 ^a	0.000059 ^a	0.0004
Heptachlor Epoxide	1024573	0.52	0.0038	0.053	0.0036	0.00032 ^a	0.00032 ^a	0.0002
Polychlorinated Biphenyls PCBs			0.014		0.03	0.00064 ^a	0.00064 ^a	0.0005
Toxaphene	8001352	0.73	0.002	0.21	0.002	0.007 ^a	0.0071 ^a	0.003
Tributyltin (TBT)		0.46	0.072	0.42	0.0074			
Pentachlorobenzene	608935					0.1	0.1	
Pentachlorophenol (PCP) ¹	87865	19	15	13	7.9	2.7 ^a	30 ^a	0.001

¹ The freshwater aquatic life criteria for PCP are expressed as a function of pH. Refer to §D of this regulation.

^a Criterion is based on a carcinogenic risk level of 10⁻⁵.

* Drinking water MCLs apply to Public Water Supply designated waters only.

H. Acute Numeric Toxic Substance Criteria for Ammonia for the Protection of Fresh Water Aquatic Life.

(1) The use of Tables 3 and 4 requires documentation acceptable to the Department of the absence of freshwater mussels using the methods outlined in the document "Procedures for Applying the Mussel-Absent Ammonia Criteria to Maryland Surface Waters", which is incorporated by reference.

(2) Presence of Salmonid Fish. In Class III, III-P, IV, and IV-P waters, the concentration of total ammonia (in milligrams of nitrogen per liter) may not exceed the acute criterion listed in Table 1.

(3) Absence of Salmonid Fish. In Class I and I-P waters, the concentration of total ammonia (in milligrams of nitrogen per liter) may not exceed the acute criterion listed in Table 2.

(4) Presence of Salmonid Fish and Absence of Freshwater Mussels. In Class III, III-P, IV, and IV-P waters, the concentration of total ammonia (in milligrams of nitrogen per liter) may not exceed the acute criterion listed in Table 3.

(5) Absence of Salmonid Fish and Absence of Freshwater Mussels. In Class I and I-P waters, the concentration of total ammonia (in milligrams of nitrogen per liter) may not exceed the acute criterion listed in Table 4.

(6) Table 1. Acute Water Quality Criteria for Freshwater Aquatic Life for Ammonia Where Salmonids May Be Present (milligrams of nitrogen per liter) ¹.

Temperature (° C)																	
pH	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
6.5	32.6	32.6	31.6	29.1	26.8	24.6	22.7	20.9	19.2	17.7	16.3	15.0	13.8	12.7	11.7	10.8	9.9
6.6	31.3	31.3	30.3	27.9	25.7	23.6	21.8	20.0	18.4	17.0	15.6	14.4	13.2	12.2	11.2	10.3	9.5
6.7	29.8	29.8	28.8	26.5	24.4	22.5	20.7	19.0	17.5	16.1	14.9	13.7	12.6	11.6	10.7	9.8	9.0
6.8	28.0	28.0	27.2	25.0	23.0	21.2	19.5	18.0	16.5	15.2	14.0	12.9	11.9	10.9	10.0	9.2	8.5

6.9	26.2	26.2	25.3	23.3	21.5	19.8	18.2	16.7	15.4	14.2	13.1	12.0	11.1	10.2	9.4	8.6	7.9
7.0	24.1	24.1	23.3	21.5	19.8	18.2	16.8	15.4	14.2	13.1	12.0	11.1	10.2	9.4	8.6	7.9	7.3
7.1	21.9	21.9	21.3	19.6	18.0	16.6	15.3	14.0	12.9	11.9	11.0	10.1	9.3	8.5	7.9	7.2	6.7
7.2	19.7	19.7	19.1	17.6	16.2	14.9	13.7	12.6	11.6	10.7	9.8	9.1	8.3	7.7	7.1	6.5	6.0
7.3	17.5	17.5	17.0	15.6	14.4	13.2	12.2	11.2	10.3	9.5	8.7	8.0	7.4	6.8	6.3	5.8	5.3
7.4	15.3	15.3	14.9	13.7	12.6	11.6	10.7	9.8	9.0	8.3	7.7	7.0	6.5	6.0	5.5	5.1	4.7
7.5	13.3	13.3	12.9	11.8	10.9	10.0	9.2	8.5	7.8	7.2	6.6	6.1	5.6	5.2	4.8	4.4	4.0
7.6	11.4	11.4	11.0	10.1	9.3	8.6	7.9	7.3	6.7	6.2	5.7	5.2	4.8	4.4	4.1	3.8	3.5
7.7	9.6	9.6	9.3	8.6	7.9	7.3	6.7	6.2	5.7	5.2	4.8	4.4	4.1	3.8	3.5	3.2	2.9
7.8	8.1	8.1	7.9	7.2	6.7	6.1	5.6	5.2	4.8	4.4	4.0	3.7	3.4	3.2	2.9	2.7	2.5
7.9	6.8	6.8	6.6	6.0	5.6	5.1	4.7	4.3	4.0	3.7	3.4	3.1	2.9	2.6	2.4	2.2	2.1
8.0	5.6	5.6	5.4	5.0	4.6	4.2	3.9	3.6	3.3	3.0	2.8	2.6	2.4	2.2	2.0	1.9	1.7
8.1	4.6	4.6	4.5	4.1	3.8	3.5	3.2	3.0	2.7	2.5	2.3	2.1	2.0	1.8	1.7	1.5	1.4
8.2	3.8	3.8	3.7	3.4	3.1	2.9	2.7	2.4	2.3	2.1	1.9	1.8	1.6	1.5	1.4	1.3	1.2
8.3	3.1	3.1	3.1	2.8	2.6	2.4	2.2	2.0	1.9	1.7	1.6	1.4	1.3	1.2	1.1	1.0	1.0
8.4	2.6	2.6	2.5	2.3	2.1	2.0	1.8	1.7	1.5	1.4	1.3	1.2	1.1	1.0	0.9	0.9	0.8
8.5	2.1	2.1	2.1	1.9	1.8	1.6	1.5	1.4	1.3	1.2	1.1	1.0	0.9	0.8	0.8	0.7	0.6
8.6	1.8	1.8	1.7	1.6	1.5	1.3	1.2	1.1	1.0	1.0	0.9	0.8	0.7	0.7	0.6	0.6	0.5
8.7	1.5	1.5	1.4	1.3	1.2	1.1	1.0	0.9	0.9	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4
8.8	1.2	1.2	1.2	1.1	1.0	0.9	0.9	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.4
8.9	1.0	1.0	1.0	0.9	0.9	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.4	0.3	0.3
9.0	0.9	0.9	0.9	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3

¹ The acute water quality criteria for total ammonia where salmonids may be present was calculated using the following equation, which may also be used to calculate unlisted values: Acute water quality criteria for ammonia (salmonids present) =

$$CMC = MIN \left[\left(\frac{0.275}{1 + 10^{7.204 - pH}} + \frac{39}{1 + 10^{pH - 7.204}} \right), \left(0.7249 * \left(\frac{0.0114}{1 + 10^{7.204 - pH}} + \frac{1.6181}{1 + 10^{pH - 7.204}} \right) * (23.12 * 10^{0.036 * (20 - T)}) \right) \right]$$

Where MIN indicates the lesser of the two values separated by a comma.

(7) Table 2. Acute Water Quality Criteria for Freshwater Aquatic Life for Ammonia Where Salmonids Are Absent (milligrams of nitrogen per liter) ¹.

pH	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
6.5	50.9	47.8	44.0	40.5	37.3	34.3	31.6	29.1	26.8	24.6	22.7	20.9	19.2	17.7	16.3	15.0	13.8	12.7	11.7	10.8	9.9
6.6	48.9	45.9	42.2	38.9	35.8	32.9	30.3	27.9	25.7	23.6	21.8	20.0	18.4	17.0	15.6	14.4	13.2	12.2	11.2	10.3	9.5
6.7	46.5	43.6	40.2	37.0	34.0	31.3	28.8	26.5	24.4	22.5	20.7	19.0	17.5	16.1	14.9	13.7	12.6	11.6	10.7	9.8	9.0
6.8	43.8	41.1	37.9	34.8	32.1	29.5	27.2	25.0	23.0	21.2	19.5	18.0	16.5	15.2	14.0	12.9	11.9	10.9	10.0	9.2	8.5
6.9	40.8	38.3	35.3	32.5	29.9	27.5	25.3	23.3	21.5	19.8	18.2	16.7	15.4	14.2	13.1	12.0	11.1	10.2	9.4	8.6	7.9
7.0	37.6	35.3	32.5	29.9	27.6	25.4	23.3	21.5	19.8	18.2	16.8	15.4	14.2	13.1	12.0	11.1	10.2	9.4	8.6	7.9	7.3
7.1	34.3	32.2	29.6	27.3	25.1	23.1	21.3	19.6	18.0	16.6	15.3	14.0	12.9	11.9	11.0	10.1	9.3	8.5	7.9	7.2	6.7
7.2	30.8	28.9	26.6	24.5	22.6	20.8	19.1	17.6	16.2	14.9	13.7	12.6	11.6	10.7	9.8	9.1	8.3	7.7	7.1	6.5	6.0
7.3	27.3	25.7	23.6	21.7	20.0	18.4	17.0	15.6	14.4	13.2	12.2	11.2	10.3	9.5	8.7	8.0	7.4	6.8	6.3	5.8	5.3
7.4	24.0	22.5	20.7	19.1	17.5	16.1	14.9	13.7	12.6	11.6	10.7	9.8	9.0	8.3	7.7	7.0	6.5	6.0	5.5	5.1	4.7
7.5	20.7	19.5	17.9	16.5	15.2	14.0	12.9	11.8	10.9	10.0	9.2	8.5	7.8	7.2	6.6	6.1	5.6	5.2	4.8	4.4	4.0
7.6	17.8	16.7	15.4	14.1	13.0	12.0	11.0	10.1	9.3	8.6	7.9	7.3	6.7	6.2	5.7	5.2	4.8	4.4	4.1	3.8	3.5
7.7	15.1	14.1	13.0	12.0	11.0	10.1	9.3	8.6	7.9	7.3	6.7	6.2	5.7	5.2	4.8	4.4	4.1	3.8	3.5	3.2	2.9
7.8	12.7	11.9	10.9	10.1	9.3	8.5	7.9	7.2	6.7	6.1	5.6	5.2	4.8	4.4	4.0	3.7	3.4	3.2	2.9	2.7	2.5
7.9	10.6	9.9	9.1	8.4	7.7	7.1	6.6	6.0	5.6	5.1	4.7	4.3	4.0	3.7	3.4	3.1	2.9	2.6	2.4	2.2	2.1
8.0	8.8	8.2	7.6	7.0	6.4	5.9	5.4	5.0	4.6	4.2	3.9	3.6	3.3	3.0	2.8	2.6	2.4	2.2	2.0	1.9	1.7
8.1	7.2	6.8	6.3	5.8	5.3	4.9	4.5	4.1	3.8	3.5	3.2	3.0	2.7	2.5	2.3	2.1	2.0	1.8	1.7	1.5	1.4
8.2	6.0	5.6	5.2	4.8	4.4	4.0	3.7	3.4	3.1	2.9	2.7	2.4	2.3	2.1	1.9	1.8	1.6	1.5	1.4	1.3	1.2
8.3	4.9	4.6	4.2	3.9	3.6	3.3	3.1	2.8	2.6	2.4	2.2	2.0	1.9	1.7	1.6	1.4	1.3	1.2	1.1	1.0	1.0
8.4	4.1	3.8	3.5	3.2	3.0	2.7	2.5	2.3	2.1	2.0	1.8	1.7	1.5	1.4	1.3	1.2	1.1	1.0	0.9	0.9	0.8
8.5	3.3	3.1	2.9	2.7	2.4	2.3	2.1	1.9	1.8	1.6	1.5	1.4	1.3	1.2	1.1	1.0	0.9	0.8	0.8	0.7	0.6
8.6	2.8	2.6	2.4	2.2	2.0	1.9	1.7	1.6	1.5	1.3	1.2	1.1	1.0	1.0	0.9	0.8	0.7	0.7	0.6	0.6	0.5
8.7	2.3	2.2	2.0	1.8	1.7	1.5	1.4	1.3	1.2	1.1	1.0	0.9	0.9	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4
8.8	1.9	1.8	1.7	1.5	1.4	1.3	1.2	1.1	1.0	0.9	0.9	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.4
8.9	1.6	1.5	1.4	1.3	1.2	1.1	1.0	0.9	0.9	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.4	0.3	0.3
9.0	1.4	1.3	1.2	1.1	1.0	0.9	0.9	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3

¹ The acute water quality criteria for total ammonia where salmonids are absent were calculated using the following equation, which may also be used to calculate unlisted values:
Acute water quality criteria for ammonia (salmonids absent) =

$$CMC = \left[0.7249 * \left(\frac{0.0114}{1 + 10^{7.204 - pH}} + \frac{1.6181}{1 + 10^{pH - 7.204}} \right) * MIN \left(\frac{51.93}{23.12 * 10^{0.036 * (20 - T)}} \right) \right]$$

Where MIN indicates the lesser of the two values separated by a comma.

(8) Table 3. Acute Water Quality Criteria for Freshwater Aquatic Life for Ammonia Where Salmonids May Be Present and Freshwater Mussels Are Absent (milligrams of nitrogen per liter) ¹.

[illegible]

9.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.7
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¹ The acute water quality criteria for total ammonia where salmonids are present and freshwater mussels are absent were calculated using the following equation, which may also be used to calculate unlisted values: Acute water quality criteria for ammonia (salmonids present and freshwater mussels absent) =CMC=

$$MIN \left[\left(\frac{0.275}{1 + 10^{7.204 - pH}} + \frac{39}{1 + 10^{pH - 7.204}} \right), \left(0.7249 * \left(\frac{0.0114}{1 + 10^{7.204 - pH}} + \frac{1.6181}{1 + 10^{pH - 7.204}} \right) * (62.15 * 10^{0.036 * (20 - T)}) \right) \right]$$

Where MIN indicates the lesser of the two values separated by a comma.

(9) Table 4. Acute Water Quality Criteria for Freshwater Aquatic Life for Ammonia Where Salmonids Are Absent and Freshwater Mussels Are Absent (milligrams of nitrogen per liter) ¹.

Temperature (°C)																	
pH	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
6.5	50.9	50.9	50.9	50.9	50.9	50.9	50.9	50.9	50.9	47.5	43.8	40.3	37.1	34.1	31.4	28.9	26.6
6.6	48.9	48.9	48.9	48.9	48.9	48.9	48.9	48.9	48.9	45.6	42.0	38.6	35.6	32.7	30.1	27.7	25.5
6.7	46.5	46.5	46.5	46.5	46.5	46.5	46.5	46.5	46.5	43.4	39.9	36.8	33.8	31.1	28.7	26.4	24.3
6.8	43.8	43.8	43.8	43.8	43.8	43.8	43.8	43.8	43.8	40.9	37.6	34.6	31.9	29.3	27.0	24.9	22.9
6.9	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	38.1	35.1	32.3	29.7	27.4	25.2	23.2	21.3
7.0	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	35.1	32.3	29.8	27.4	25.2	23.2	21.4	19.7
7.1	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	32.0	29.4	27.1	24.9	23.0	21.1	19.5	17.9
7.2	30.8	30.8	30.8	30.8	30.8	30.8	30.8	30.8	30.8	28.8	26.5	24.4	22.4	20.6	19.0	17.5	16.1
7.3	27.3	27.3	27.3	27.3	27.3	27.3	27.3	27.3	27.3	25.5	23.5	21.6	19.9	18.3	16.9	15.5	14.3
7.4	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	22.4	20.6	18.9	17.4	16.1	14.8	13.6	12.5
7.5	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7	19.4	17.8	16.4	15.1	13.9	12.8	11.8	10.8
7.6	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	16.6	15.3	14.0	12.9	11.9	11.0	10.1	9.3
7.7	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	14.1	12.9	11.9	11.0	10.1	9.3	8.5	7.9
7.8	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	11.8	10.9	10.0	9.2	8.5	7.8	7.2	6.6
7.9	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	9.9	9.1	8.4	7.7	7.1	6.5	6.0	5.5
8.0	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.2	7.5	6.9	6.4	5.9	5.4	5.0	4.6
8.1	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	6.8	6.2	5.7	5.3	4.9	4.5	4.1	3.8
8.2	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	5.6	5.1	4.7	4.3	4.0	3.7	3.4	3.1

8.3	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.6	4.2	3.9	3.6	3.3	3.0	2.8	2.6
8.4	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	3.8	3.5	3.2	2.9	2.7	2.5	2.3	2.1
8.5	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.1	2.9	2.6	2.4	2.2	2.1	1.9	1.7
8.6	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.6	2.4	2.2	2.0	1.9	1.7	1.6	1.4
8.7	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.1	2.0	1.8	1.7	1.5	1.4	1.3	1.2
8.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.7	1.5	1.4	1.3	1.2	1.1	1.0
8.9	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.4	1.3	1.2	1.1	1.0	0.9	0.8
9.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.2	1.1	1.0	0.9	0.9	0.8	0.7

6.5	7.34	7.34	7.34	7.34	7.34	7.34	7.34	7.34	7.34	7.34	7.34	7.34	7.34	7.34	7.34	7.34	7.04	6.60	6.19	5.80	5.44	5.10	4.78	4.48	4.20
6.6	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	6.93	6.50	6.09	5.71	5.36	5.02	4.71	4.41	4.14
6.7	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	6.80	6.38	5.98	5.61	5.26	4.93	4.62	4.33	4.06
6.8	6.93	6.93	6.93	6.93	6.93	6.93	6.93	6.93	6.93	6.93	6.93	6.93	6.93	6.93	6.93	6.93	6.65	6.23	5.84	5.48	5.14	4.81	4.51	4.23	3.97
6.9	6.74	6.74	6.74	6.74	6.74	6.74	6.74	6.74	6.74	6.74	6.74	6.74	6.74	6.74	6.74	6.74	6.46	6.06	5.68	5.32	4.99	4.68	4.39	4.11	3.86
7	6.51	6.51	6.51	6.51	6.51	6.51	6.51	6.51	6.51	6.51	6.51	6.51	6.51	6.51	6.51	6.51	6.24	5.85	5.48	5.14	4.82	4.52	4.24	3.97	3.73
7.1	6.24	6.24	6.24	6.24	6.24	6.24	6.24	6.24	6.24	6.24	6.24	6.24	6.24	6.24	6.24	6.24	5.98	5.61	5.26	4.93	4.62	4.33	4.06	3.81	3.57
7.2	5.94	5.94	5.94	5.94	5.94	5.94	5.94	5.94	5.94	5.94	5.94	5.94	5.94	5.94	5.94	5.94	5.69	5.33	5.00	4.69	4.40	4.12	3.86	3.62	3.40
7.3	5.59	5.59	5.59	5.59	5.59	5.59	5.59	5.59	5.59	5.59	5.59	5.59	5.59	5.59	5.59	5.59	5.36	5.03	4.71	4.42	4.14	3.88	3.64	3.41	3.20
7.4	5.21	5.21	5.21	5.21	5.21	5.21	5.21	5.21	5.21	5.21	5.21	5.21	5.21	5.21	5.21	5.21	5.00	4.69	4.39	4.12	3.86	3.62	3.39	3.18	2.98
7.5	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.61	4.32	4.05	3.80	3.56	3.34	3.13	2.93	2.75
7.6	4.38	4.38	4.38	4.38	4.38	4.38	4.38	4.38	4.38	4.38	4.38	4.38	4.38	4.38	4.38	4.38	4.20	3.94	3.69	3.46	3.24	3.04	2.85	2.67	2.51
7.7	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.78	3.54	3.32	3.11	2.92	2.74	2.57	2.41	2.26
7.8	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.36	3.15	2.95	2.77	2.60	2.43	2.28	2.14	2.01
7.9	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	2.95	2.77	2.60	2.43	2.28	2.14	2.01	1.88	1.76
8	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.57	2.41	2.26	2.12	1.99	1.86	1.75	1.64	1.53
8.1	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.21	2.08	1.95	1.82	1.71	1.60	1.50	1.41	1.32
8.2	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.89	1.77	1.66	1.56	1.46	1.37	1.29	1.21	1.13
8.3	1.68	1.68	1.68	1.68	1.68	1.68	1.68	1.68	1.68	1.68	1.68	1.68	1.68	1.68	1.68	1.68	1.61	1.51	1.41	1.33	1.24	1.17	1.09	1.02	0.96
8.4	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.36	1.28	1.20	1.12	1.05	0.99	0.92	0.87	0.81
8.5	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.15	1.08	1.01	0.95	0.89	0.83	0.78	0.73	0.69
8.6	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	0.97	0.91	0.85	0.80	0.75	0.70	0.66	0.62	0.58
8.7	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.82	0.77	0.72	0.68	0.63	0.60	0.56	0.52	0.49
8.8	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.70	0.65	0.61	0.58	0.54	0.51	0.47	0.44	0.42
8.9	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.60	0.56	0.52	0.49	0.46	0.43	0.40	0.38	0.36
9	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.51	0.48	0.45	0.42	0.40	0.37	0.35	0.33	0.31

¹ The freshwater chronic water quality criteria for total ammonia where fish early life stages are present but freshwater mussels are absent were calculated using the following equation, which may also be used to calculate unlisted values:

Freshwater chronic water quality criterion for ammonia (fish early life stages present and freshwater mussels absent) =CCC=

$$\left[0.9405 * \left(\frac{0.0278}{1 + 10^{7.688 - pH}} + \frac{1.1994}{1 + 10^{pH - 7.688}} \right) * MIN \left(\frac{6.920}{7.547 * 10^{0.028 * (20 - T)}} \right) \right]$$

Where MIN indicates the lesser of the two values separated by a comma.

(7) Table 3. Chronic Ammonia Criteria for Waters Where Freshwater Fish Early Life Stages Are Absent and Freshwater Mussels Are Absent (milligrams of nitrogen per liter).¹

	Temperature (°C)																													
pH	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30						
6.5	18.5	17.4	16.3	15.3	14.3	13.4	12.6	11.8	11.1	10.4	9.72	9.11	8.54	8.01	7.51	7.04	6.60	6.19	5.80	5.44	5.10	4.78	4.48	4.20						
6.6	18.2	17.1	16.0	15.0	14.1	13.2	12.4	11.6	10.9	10.2	9.57	8.97	8.41	7.89	7.39	6.93	6.50	6.09	5.71	5.36	5.02	4.71	4.41	4.14						
6.7	17.9	16.8	15.7	14.7	13.8	13.0	12.2	11.4	10.7	10.0	9.39	8.80	8.25	7.74	7.25	6.80	6.38	5.98	5.61	5.26	4.93	4.62	4.33	4.06						
6.8	17.5	16.4	15.4	14.4	13.5	12.7	11.9	11.1	10.4	9.78	9.17	8.60	8.06	7.56	7.09	6.65	6.23	5.84	5.48	5.14	4.81	4.51	4.23	3.97						
6.9	17.0	15.9	14.9	14.0	13.1	12.3	11.5	10.8	10.1	9.51	8.92	8.36	7.84	7.35	6.89	6.46	6.06	5.68	5.32	4.99	4.68	4.39	4.11	3.86						
7	16.4	15.4	14.4	13.5	12.7	11.9	11.1	10.5	9.80	9.19	8.61	8.07	7.57	7.10	6.65	6.24	5.85	5.48	5.14	4.82	4.52	4.24	3.97	3.73						
7.1	15.7	14.8	13.8	13.0	12.2	11.4	10.7	10.0	9.40	8.81	8.26	7.74	7.26	6.81	6.38	5.98	5.61	5.26	4.93	4.62	4.33	4.06	3.81	3.57						
7.2	15.0	14.0	13.2	12.3	11.6	10.8	10.2	9.53	8.94	8.38	7.85	7.36	6.90	6.47	6.07	5.69	5.33	5.00	4.69	4.40	4.12	3.86	3.62	3.40						
7.3	14.1	13.2	12.4	11.6	10.9	10.2	9.58	8.98	8.42	7.89	7.40	6.94	6.50	6.10	5.72	5.36	5.03	4.71	4.42	4.14	3.88	3.64	3.41	3.20						
7.4	13.1	12.3	11.6	10.8	10.2	9.52	8.93	8.37	7.85	7.36	6.90	6.47	6.06	5.69	5.33	5.00	4.69	4.39	4.12	3.86	3.62	3.39	3.18	2.98						
7.5	12.1	11.4	10.7	9.99	9.36	8.78	8.23	7.72	7.24	6.78	6.36	5.96	5.59	5.24	4.91	4.61	4.32	4.05	3.80	3.56	3.34	3.13	2.93	2.75						
7.6	11.0	10.4	9.70	9.10	8.53	8.00	7.50	7.03	6.59	6.18	5.79	5.43	5.09	4.78	4.48	4.20	3.94	3.69	3.46	3.24	3.04	2.85	2.67	2.51						
7.7	9.94	9.32	8.73	8.19	7.68	7.20	6.75	6.33	5.93	5.56	5.21	4.89	4.58	4.30	4.03	3.78	3.54	3.32	3.11	2.92	2.74	2.57	2.41	2.26						
7.8	8.84	8.29	7.77	7.28	6.83	6.40	6.00	5.63	5.28	4.95	4.64	4.35	4.08	3.82	3.58	3.36	3.15	2.95	2.77	2.60	2.43	2.28	2.14	2.01						
7.9	7.77	7.28	6.83	6.40	6.00	5.63	5.28	4.95	4.64	4.35	4.08	3.82	3.58	3.36	3.15	2.95	2.77	2.60	2.43	2.28	2.14	2.01	1.88	1.76						
8	6.76	6.34	5.94	5.57	5.22	4.90	4.59	4.30	4.03	3.78	3.55	3.33	3.12	2.92	2.74	2.57	2.41	2.26	2.12	1.99	1.86	1.75	1.64	1.53						
8.1	5.82	5.46	5.12	4.80	4.50	4.22	3.96	3.71	3.48	3.26	3.06	2.87	2.69	2.52	2.36	2.21	2.08	1.95	1.82	1.71	1.60	1.50	1.41	1.32						
8.2	4.98	4.67	4.38	4.10	3.85	3.61	3.38	3.17	2.97	2.79	2.61	2.45	2.30	2.15	2.02	1.89	1.77	1.66	1.56	1.46	1.37	1.29	1.21	1.13						
8.3	4.23	3.97	3.72	3.49	3.27	3.07	2.87	2.69	2.53	2.37	2.22	2.08	1.95	1.83	1.72	1.61	1.51	1.41	1.33	1.24	1.17	1.09	1.02	0.96						
8.4	3.58	3.36	3.15	2.95	2.77	2.59	2.43	2.28	2.14	2.00	1.88	1.76	1.65	1.55	1.45	1.36	1.28	1.20	1.12	1.05	0.99	0.92	0.87	0.81						
8.5	3.02	2.84	2.66	2.49	2.34	2.19	2.05	1.93	1.81	1.69	1.59	1.49	1.40	1.31	1.23	1.15	1.08	1.01	0.95	0.89	0.83	0.78	0.73	0.69						
8.6	2.55	2.39	2.24	2.10	1.97	1.85	1.73	1.63	1.52	1.43	1.34	1.26	1.18	1.10	1.04	0.97	0.91	0.85	0.80	0.75	0.70	0.66	0.62	0.58						
8.7	2.16	2.03	1.90	1.78	1.67	1.57	1.47	1.38	1.29	1.21	1.13	1.06	1.00	0.93	0.88	0.82	0.77	0.72	0.68	0.63	0.60	0.56	0.52	0.49						
8.8	1.84	1.72	1.61	1.51	1.42	1.33	1.25	1.17	1.10	1.03	0.96	0.90	0.85	0.79	0.74	0.70	0.65	0.61	0.58	0.54	0.51	0.47	0.44	0.42						
8.9	1.57	1.47	1.38	1.29	1.21	1.14	1.07	1.00	0.94	0.88	0.82	0.77	0.72	0.68	0.64	0.60	0.56	0.52	0.49	0.46	0.43	0.40	0.38	0.36						
9	1.35	1.27	1.19	1.11	1.04	0.98	0.92	0.86	0.81	0.76	0.71	0.66	0.62	0.58	0.55	0.51	0.48	0.45	0.42	0.40	0.37	0.35	0.33	0.31						

¹ The freshwater chronic water quality criteria for total ammonia where fish early life stages are present but freshwater mussels are absent were calculated using the following equation, which may also be used to calculate unlisted values:

Freshwater chronic water quality criterion for ammonia (fish early life stages absent and freshwater mussels absent)=CCC=

$$\left(0.9405 * \left(\frac{0.0278}{1 + 10^{7.688 - pH}} + \frac{1.1994}{1 + 10^{pH - 7.688}} \right) * \left(7.547 * 10^{0.028 * (20 - MAX(T, 7))} \right) \right)$$

Where MAX indicates the greater of the two values separated by a comma.

J. Saltwater and Estuarine Acute Criteria for Ammonia. Acute numeric toxic substance criteria for ammonia to protect marine and estuarine life are shown in Table 1. In estuarine and saltwaters, the concentration of total ammonia (in milligrams/liter) may not exceed the acute criterion listed in Table 1. Milligrams per liter total ammonia in saltwater (Table 1) may be converted to milligrams of ammonia nitrogen per liter (as used in §§H and I of this regulation) by multiplying the criteria values in Table 1 by 14/17 (or 0.82353) to result in total ammonia nitrogen.

Table 1 Acute Water Quality Criteria for Saltwater Aquatic Life (milligrams per liter total ammonia).

Temperature (°C)								
	0	5	10	15	20	25	30	35
pH	Salinity = 10 parts per thousand							
7.0	270	191	131	92	62	44	29	21
7.2	175	121	83	58	40	27	19	13
7.4	110	77	52	35	25	17	12	8.3
7.6	69	48	33	23	16	11	7.7	5.6
7.8	44	31	21	15	10	7.1	5.0	3.5
8.0	27	19	13	9.4	6.4	4.6	3.1	2.3
8.2	18	12	8.5	5.8	4.2	2.9	2.1	1.5
8.4	11	7.9	5.4	3.7	2.7	1.9	1.4	1.0
8.6	7.3	5.0	3.5	2.5	1.8	1.3	0.98	0.75
8.8	4.6	3.3	2.3	1.7	1.2	0.92	0.71	0.56
9.0	2.9	2.1	1.5	1.1	0.85	0.67	0.52	0.44
pH	Salinity = 20 parts per thousand							
7.0	291	200	137	96	64	44	31	21
7.2	183	125	87	60	42	29	20	14

7.4	116	79	54	37	27	18	12	8.7
7.6	73	50	35	23	17	11	7.9	5.6
7.8	46	31	23	15	11	7.5	5.2	3.5
8.0	29	20	14	9.8	6.7	4.8	3.3	2.3
8.2	19	13	8.9	6.2	4.4	3.1	2.1	1.6
8.4	12	8.1	5.6	4.0	2.9	2.0	1.5	1.1
8.6	7.5	5.2	3.7	2.7	1.9	1.4	1.0	0.77
8.8	4.8	3.3	2.5	1.7	1.3	0.94	0.73	0.56
9.0	3.1	2.3	1.6	1.2	0.87	0.69	0.54	0.44
pH	Salinity = 30 parts per thousand							
7.0	312	208	148	102	71	48	33	23
7.2	196	135	94	64	44	31	21	15
7.4	125	85	58	40	27	19	13	9.4
7.6	79	54	37	25	21	12	8.5	6.0
7.8	50	33	23	16	11	7.9	5.4	3.7
8.0	31	21	15	10	7.3	5.0	3.5	2.5
8.2	20	14	9.6	6.7	4.6	3.3	2.3	1.7
8.4	12.7	8.7	6.0	4.2	2.9	2.1	1.6	1.1
8.6	8.1	5.6	4.0	2.7	2.0	1.4	1.1	0.81
8.8	5.2	3.5	2.5	1.8	1.3	1.0	0.75	0.58
9.0	3.3	2.3	1.7	1.2	0.94	0.71	0.56	0.46

K. Saltwater and Estuarine Chronic Criteria for Ammonia.

(1) Chronic numeric toxic substance criteria for ammonia to protect marine and estuarine life are shown in Table 1.

(2) Averaging Period. The concentration of total ammonia (in milligrams/liter) expressed as a 30-day average may not exceed the chronic criterion listed in Table 1.

(3) Milligrams per liter total ammonia in saltwater (Table 1) may be converted to milligrams of ammonia nitrogen per liter (as used in §§H and I of this regulation) by multiplying the criteria values in Table 1 by 14/17 (or 0.82353) to result in total ammonia nitrogen.

Table 1 Chronic Water Quality Criteria for Saltwater Aquatic Life (milligrams/liter total ammonia).

Temperature (°C)								
	0	5	10	15	20	25	30	35
pH	Salinity = 10 parts per thousand							
7.0	41	29	20	14	9.4	6.6	4.4	3.1
7.2	26	18	12	8.7	5.9	4.1	2.8	2.0
7.4	17	12	7.8	5.3	3.7	2.6	1.8	1.2
7.6	10	7.2	5.0	3.4	2.4	1.7	1.2	0.84
7.8	6.6	4.7	3.1	2.2	1.5	1.1	0.75	0.53
8.0	4.1	2.9	2.0	1.40	0.97	0.69	0.47	0.34
8.2	2.7	1.8	1.3	0.87	0.62	0.44	0.31	0.23
8.4	1.7	1.2	0.81	0.56	0.41	0.29	0.21	0.16
8.6	1.1	0.75	0.53	0.37	0.27	0.20	0.15	0.11
8.8	0.69	0.50	0.34	0.25	0.18	0.14	0.11	0.08
9.0	0.44	0.31	0.23	0.17	0.13	0.10	0.08	0.07
pH	Salinity = 20 parts per thousand							
7.0	44	30	21	14	9.7	6.6	4.7	3.1
7.2	27	19	13	9.0	6.02	4.4	3.0	2.1
7.4	18	12	8.1	5.6	4.1	2.7	1.9	1.3
7.6	11	7.5	5.3	3.4	2.5	1.7	1.2	0.84
7.8	6.9	4.7	3.4	2.3	1.6	1.1	0.78	0.53
8.0	4.4	3.0	2.1	1.5	1.0	0.72	0.50	0.34
8.2	2.8	1.9	1.3	0.94	0.66	0.47	0.31	0.24
8.4	1.8	1.2	0.84	0.59	0.44	0.30	0.22	0.16
8.6	1.1	0.78	0.56	0.41	0.28	0.20	0.15	0.12
8.8	0.72	0.50	0.37	0.26	0.19	0.14	0.11	0.08
9.0	0.47	0.34	0.24	0.18	0.13	0.10	0.08	0.07
pH	Salinity = 30 parts per thousand							
7.0	47	31	22	15	11	7.2	5.0	3.4
7.2	29	20	14	9.7	6.6	4.7	3.1	2.2
7.4	19	13	8.7	5.9	4.1	2.9	2.0	1.4

7.6	12	8.1	5.6	3.7	3.1	1.8	1.3	0.90
7.8	7.5	5.0	3.4	2.4	1.7	1.2	0.81	0.56
8.0	4.7	3.1	2.2	1.6	1.1	0.75	0.53	0.37
8.2	3.0	2.1	1.4	1.0	0.69	0.50	0.34	0.25
8.4	1.9	1.3	0.90	0.62	0.44	0.31	0.23	0.17
8.6	1.2	0.84	0.59	0.41	0.30	0.22	0.16	0.12
8.8	0.78	0.53	0.37	0.27	0.20	0.15	0.11	0.09
9.0	0.50	0.34	0.26	0.19	0.14	0.11	0.08	0.07

.03-3 Water Quality Criteria Specific to Designated Uses.

A. Criteria for Class I Waters — Water Contact Recreation and Protection of Nontidal Warmwater Aquatic Life.

(1) Bacteriological.

(a) Table 1. Bacteria Indicator Criteria Magnitudes

		Geometric Mean	Statistical Threshold Value
Indicator	Enterococci (fresh or marine) - culturable	35	130
	E. coli (fresh) - culturable	126	410

All Magnitudes in Table 1 are expressed as counts per 100 milliliters

(b) The geometric mean of samples taken over a 90 day period shall not exceed the steady state geometric mean values for the given indicator.

(c) 10 percent of samples taken over a 90 day period shall not exceed the statistical threshold value.

(d) When a sanitary survey and an epidemiological study approved by the Department disclose no significant health hazard, the criteria in Table 1 do not apply.

(2) Dissolved Oxygen. The dissolved oxygen concentration may not be less than 5 milligrams/liter at any time.

(3) Temperature.

(a) The maximum temperature outside the mixing zone determined in accordance with Regulation .05 of this chapter or COMAR 26.08.03.03—.05 may not exceed 90°F (32°C) or the ambient temperature of the surface waters, whichever is greater.

(b) A thermal barrier that adversely affects aquatic life may not be established.

(c) Ambient temperature is the water temperature that is not impacted by a point source discharge.

(d) Ambient temperature shall be measured in areas of the stream representative of typical or average conditions of the stream segment in question.

(e) The Department may determine specific temperature measurement methods, times, and locations.

(4) pH. Normal pH values may not be less than 6.5 or greater than 8.5.

(5) Turbidity.

(a) Turbidity may not exceed levels detrimental to aquatic life.

(b) Turbidity in the surface water resulting from any discharge may not exceed 150 units at any time or 50 units as a monthly average. Units shall be measured in Nephelometer Turbidity Units.

(6) Color. Color in the surface water may not exceed 75 units as a monthly average. Units shall be measured in Platinum Cobalt Units.

(7) Toxic Substance Criteria. All toxic substance criteria to protect:

(a) Fresh water aquatic organisms apply in waters designated as fresh water in Regulation .03-1B;

(b) Estuarine or salt water aquatic organisms apply in waters designated as estuarine or salt waters as specified in Regulation .03-1B; and

(c) The wholesomeness of fish for human consumption apply in fresh, estuarine, and salt waters.

B. Criteria for Subcategory Class I-P Waters — Water Contact Recreation, Protection of Nontidal Warmwater Aquatic Life and Public Water Supply. The following criteria apply:

(1) The criteria for Class I waters in §A(1)—(6); and

(2) Toxic Substance Criteria. All toxic substance criteria:

(a) For protection of fresh water aquatic organisms apply; and

(b) To protect public water supplies and the wholesomeness of fish for human consumption apply.

C. Criteria for Class II Waters — Support of Estuarine and Marine Aquatic Life and Shellfish Harvesting.

(1) Bacteriological Criteria. These criteria are the same as for Class I, criteria for protection of recreational use, except, in Shellfish Harvest Waters, the following criteria also apply. In Shellfish Harvest waters, there may not be any pathogenic or harmful organisms in sufficient quantities to constitute a public health hazard in the use of waters for shellfish harvesting. A public health hazard for the consumption of raw shellfish will be presumed:

(a) If the most probable number (MPN) of fecal coliform organisms exceeds a median concentration of 14 MPN per 100 milliliters;

(b) If more than 10 percent of samples taken exceed 43 MPN per 100 milliliters for a 5-tube decimal dilution test or 49 per 100 milliliters for a 3-tube decimal dilution test; or

(c) Except when a sanitary survey approved by the Department of the Environment discloses no significant health hazard, §C(1)(a) and (b) do not apply and a public health hazard from the consumption of shellfish will not be presumed.

(2) Classification of Class II Waters for Harvesting.

(a) Approved classification means that the median fecal coliform MPN of at least 30 water sample results taken over a 3-year period to incorporate inter-annual variability does not exceed 14 per 100 milliliters; and:

(i) In areas affected by point source discharges, not more than 10 percent of the samples exceed an MPN of 43 per 100 milliliters for a five tube decimal dilution test or 49 MPN per 100 milliliters for a three tube decimal dilution test; or

(ii) In other areas, the 90th percentile of water sample results does not exceed an MPN of 43 per 100 milliliters for a five tube decimal dilution test or 49 MPN per 100 milliliters for a three tube decimal dilution test.

(b) Conditionally approved classification means that the Department has determined that under certain conditions an area is restricted, but when not restricted, meets the conditions for the approved classification.

(c) Restricted classification means that the median fecal coliform MPN of at least 30 water sample results taken over a 3-year period does not exceed 88 per 100 milliliters or that the Department has determined that a public health hazard exists; and:

(i) In areas affected by point source discharges, not more than 10 percent of the samples exceed an MPN of 260 per 100 milliliters for a five tube decimal dilution test or 300 MPN per 100 milliliters for a three tube decimal dilution test; or

(ii) In other areas, the 90th percentile of water sample results does not exceed an MPN of 260 per 100 milliliters for a five tube decimal dilution test or 300 MPN per 100 milliliter for a three tube decimal dilution test.

(d) Prohibited classification means that the fecal coliform values exceed those required for the restricted classification or is an area designated by the Department as a closed safety zone adjacent to a sewage treatment facility outfall or is an area closed due to a known pollution source.

(3) Temperature — same as Class I waters.

(4) pH — same as Class I waters.

(5) Turbidity — same as Class I waters.

(6) Color — same as Class I waters.

(7) Toxic Substance Criteria. All toxic substance criteria to protect:

(a) Estuarine or salt water aquatic organisms apply in accordance with the requirements of Regulation .03-1B; and

(b) The wholesomeness of fish for human consumption apply.

(8) Dissolved Oxygen Criteria for Class II Waters.

(a) This criteria is the same as for Class I waters, except for the Chesapeake Bay mainstem and associated tidal tributary subcategories.

(b) Seasonal and Migratory Fish Spawning and Nursery Subcategory. The dissolved oxygen concentrations in areas designated as migratory spawning and nursery seasonal use shall be:

(i) Greater than or equal to 6 milligrams/liter for a 7-day averaging period from February 1 through May 31 (salinity less than or equal to 0.5 parts per thousand);

(ii) Greater than or equal to 5 milligrams/liter as an instantaneous minimum from February 1 through May 31; and

(iii) Applicable to the open-water fish and shellfish subcategory criteria from June 1 to January 31.

(c) The seasonal shallow-water submerged aquatic vegetation subcategory is the same as for the open-water fish and shellfish subcategory year-round.

(d) Open-Water Fish and Shellfish Subcategory. The dissolved oxygen concentrations in areas designated as open-water fish and shellfish subcategory shall be:

(i) Greater than or equal to 5.5 milligrams/liter for a 30-day averaging period year-round in tidal fresh waters (salinity less than or equal to 0.5 parts per thousand);

(ii) Greater than or equal to 5 milligrams/liter for a 30-day averaging period year-round (salinity greater than 0.5 parts per thousand);

(iii) Greater than or equal to 4.0 milligrams/liter for a 7-day averaging period year-round;

(iv) Greater than or equal to 3.2 milligrams/liter as an instantaneous minimum year-round;

(v) For protection of the endangered shortnose sturgeon, greater than or equal to 4.3 milligrams/liter as an instantaneous minimum at water column temperatures greater than 29°C (77°F); and

(vi) For the Upper Pocomoke River Tidal Fresh (POCTF) and the Maryland portion of the Middle Pocomoke River Oligohaline (POCOH), greater than or equal to 4.0 milligrams/liter for a 30-day averaging period year-round.

(e) Seasonal Deep-Water Fish and Shellfish Subcategory. The dissolved oxygen concentrations in areas designated as seasonal deep-water fish and shellfish subcategory shall be:

(i) Greater than or equal to 3.0 milligrams/liter for a 30-day averaging period from June 1 through September 30;

(ii) Greater than or equal to 2.3 milligrams/liter for a 1-day averaging period from June 1 through September 30;

(iii) Greater than or equal to 1.7 milligrams/liter as an instantaneous minimum from June 1 through September 30;

(iv) The open-water fish and shellfish subcategory criteria apply from October 1 to May 31; and

(v) For the dissolved oxygen criteria restoration variance for Chesapeake Bay Mainstem Segment 4 mesohaline (CB4MH) seasonal deep-water fish and shellfish subcategory, not lower for dissolved oxygen in segment CB4MH than the stated criteria for the seasonal deep-water fish and shellfish use for more than 5 percent spatially and temporally (in combination), from June 1 to September 30.

(f) Seasonal Deep-Channel Refuge Subcategory. The dissolved oxygen concentrations in areas designated as deep-channel seasonal refuge use shall be:

(i) Greater than or equal to 1.0 milligrams/liter as an instantaneous minimum from June 1 through September 30 except for Chesapeake Bay segments subject to variances;

(ii) For dissolved oxygen criteria restoration variance for Chesapeake Bay Mainstem Segment 4 mesohaline (CB4MH) deep-channel refuge subcategory, not lower for dissolved oxygen in segment CB4MH than the stated criteria for the seasonal deep-channel refuge for more than 6 percent spatially or temporally (in combination), from June 1 to September 30;

(iii) For the dissolved oxygen criteria restoration variance for Eastern Bay Mesohaline (EASMH) seasonal deep-channel refuge subcategory, not lower for dissolved oxygen in segment EASMH than the stated criteria for the seasonal deep-channel refuge use for more than 2 percent spatially and temporally (in combination), from June 1 to September 30; and

(iv) The same as for the open-water fish and shellfish subcategory from October 1 to May 31.

(g) Implementation of the Dissolved Oxygen Water Quality Standard. The attainment of the dissolved oxygen criteria that apply to the Chesapeake Bay and tidally influenced tributary waters shall be determined using the guidelines established in the U.S. Environmental Protection Agency publications "Ambient Water Quality Criteria for Dissolved Oxygen, Water Clarity and Chlorophyll a for the Chesapeake Bay and its Tidal Tributaries (EPA 903-R-03-002), Chapter III"; "Ambient Water Quality Criteria for Dissolved Oxygen, Water Clarity and Chlorophyll a for the Chesapeake Bay and its Tidal Tributaries — 2004 Addendum (EPA 903-R-04-005), Chapter V"; "Ambient Water Quality Criteria for Dissolved Oxygen, Water Clarity and Chlorophyll a for the Chesapeake Bay and its Tidal Tributaries — 2007 Addendum (EPA 903-R-07-003), Chapter IV"; "Ambient Water Quality Criteria for Dissolved Oxygen, Water Clarity and Chlorophyll a for the Chesapeake Bay and Its Tidal Tributaries — 2008 Technical Support for Criteria Assessment Protocols Addendum (EPA 903-R-08-001), Chapter III"; "Ambient Water Quality Criteria for Dissolved Oxygen, Water Clarity and Chlorophyll a for the Chesapeake Bay and Its Tidal Tributaries — 2010 Technical Support for Criteria Assessment Protocols Addendum (EPA 903-R-10-002), Chapters II and III"; and "Ambient Water Quality Criteria for Dissolved Oxygen, Water Clarity and Chlorophyll a for the Chesapeake Bay and Its Tidal Tributaries — 2017 Technical Addendum (EPA 903-R-17-002), Chapters II and III"; which are incorporated by reference.

(h) Restoration Variance. The percentage of allowable exceedance for restoration variances is based on water quality modeling and incorporates the best available data and assumptions. The restoration variances are temporary, and will be reviewed at a minimum every three years, as required by the Clean Water Act and EPA regulations. The variances may be modified based on new data or assumptions incorporated into the water quality model.

(9) Water Clarity Criteria for Seasonal Shallow-Water Submerged Aquatic Vegetation Subcategory.

(a) Water Clarity Criteria Measurement. A Bay segment has attained the shallow water designated use if:

(i) Submerged aquatic vegetation (SAV) acreage meets or exceeds the SAV acreage restoration goal in Table 3 of this regulation;

(ii) The shallow-water acreage that meets or exceeds the water clarity criterion expressed in Secchi depth equivalence from Table 2 of this regulation at the segment specific application depth specified in Regulation .08 of this chapter (excluding SAV no grow zones) is 2.5 times greater than the SAV Acreage Restoration Goal from Table 3 of this regulation; or

(iii) A combination of the actual SAV acreage attained and meeting the applicable water clarity criteria in an additional, unvegetated shallow water surface area equals 2.5 times the remaining SAV acreage necessary to meet the segment's restoration goal.

(a-1) If none of §C(9)(a)(i), (ii), or (iii) applies, the segment has not attained the water clarity designated use.

(b) Table 2. Numerical Water Clarity Criteria (in Secchi Depth Equivalents) for General Application to Shallow Water Aquatic Vegetation Bay Grass Designated Use (Application Depths Given in 0.5 Meter Attainment Intervals).

		Water Clarity Criteria as Secchi Depth (meters)				
Salinity Regime	Water Clarity Criteria as Percent Light through Water	Water Clarity Criteria Application Depths (meters)				Seasonal Application
		0.5	1.0	1.5	2.0	
		Secchi Depth Equivalents for Criteria Application Depth				
Tidal Fresh	13%	0.4	0.7	1.1	1.4	April 1 to October 1
Oligohaline	13%	0.4	0.7	1.1	1.4	April 1 to October 1
Mesohaline	22%	0.5	1.0	1.4	1.9	April 1 to October 1

¹Based on application if the formula $PLW = 100\exp(-K_d Z)$, the appropriate PLW criterion value and the selected application depth (Z) are inserted and the equation is solved for K_d . The generated K_d value is then converted to Secchi depth (in meters) using the conversion factor $K_d = 1.45/\text{Secchi depth}$.

(c) Table 3. SAV Acreage Restoration Goals.

Segment Description ¹	Segment Designator	SAV Acreage Restoration Goal	Secchi Application Depth
Northern Chesapeake Bay	CB1TF2	12,149	2 meters
Northern Chesapeake Bay	CB1TF1	754	1.0 meters
Lower Pocomoke River Mesohaline	POCMH	877 ²	1.0 meters
Manokin River Mesohaline	MANMH1	4,294	2.0 meters
Manokin River Mesohaline	MANMH2	59	0.5 meters
Big Annemessex River Mesohaline	BIGMH1	2,021	2.0 meters
Big Annemessex River Mesohaline	BIGMH2	22	0.5 meters
Tangier Sound Mesohaline	TANMH1	24,683 ²	2.0 meters
Tangier Sound Mesohaline	TANMH2	74	0.5 meters
Middle Nanticoke River Oligohaline	NANOH	12	0.5 meters
Lower Nanticoke River Mesohaline	NANMH	3	0.5 meters
Wicomico River Mesohaline	WICMH	3	0.5 meters
Fishing Bay Mesohaline	FSBMH	197	0.5 meters
Middle Choptank River Oligohaline	CHOOH	72	0.5 meters
Lower Choptank River Mesohaline	CHOMH2	1,621	1.0 meters
Mouth of Choptank River Mesohaline	CHOMH1	8,184	2.0 meters
Little Choptank River Mesohaline	LCHMH	4,076	2.0 meters
Honga River Mesohaline	HNGMH	7,761	2.0 meters
Eastern Bay	EASMH	6,209	2.0 meters
Upper Chester River Tidal Fresh	CSHTF	1	0.5 meters
Middle Chester River Oligohaline	CHSOH	77	0.5 meters
Lower Chester River Mesohaline	CHSMH	2,928	1.0 meters

Chesapeake & Delaware (C&D) Canal	C&DOH	7	0.5 meters
Northeast River Tidal Fresh	NORTF	89	0.5 meters
Bohemia River Oligohaline	BOHOH	354	0.5 meters
Elk River Oligohaline	ELKOH1	1,844	2.0 meters
Elk River Oligohaline	ELKOH2	190	0.5 meters
Sassafras River Oligohaline	SASOH1	1,073	2.0 meters
Sassafras River Oligohaline	SASOH2	95	0.5 meters
Bush River Oligohaline	BSHOH	350	0.5 meters
Gunpowder River Oligohaline	GUNOH2	572	2.0 meters
Mouth of Gunpowder River	GUNOH1	1,860	0.5 meters
Middle River Oligohaline	MIDOH	879	2.0 meters
Back River Oligohaline	BACOH	30	0.5 meters
Patapsco River Mesohaline	PATMH	389	1.0 meters
Magothy River Mesohaline	MAGMH	579	1.0 meters
Severn River Mesohaline	SEVMH	455	1.0 meters
South River Mesohaline	SOUMH	479	1.0 meters
Rhode River Mesohaline	RHDMH	60	0.5 meters
West River Mesohaline	WSTMH	238	0.5 meters
Upper Patuxent River Tidal Fresh	PAXTF	205	0.5 meters
Middle Patuxent River Oligohaline	PAXOH	115	0.5 meters
Lower Patuxent River Mesohaline	PAXMH1	1,459	2.0 meters
Lower Patuxent River Mesohaline	PAXMH2	172	0.5 meters
Lower Patuxent River Mesohaline	PAXMH4	1	0.5 meters
Lower Patuxent River Mesohaline	PAXMH5	2	0.5 meters
Lower Potomac River Tidal Fresh	POTTf	2,142 ²	2.0 meters
Piscataway Creek Tidal Fresh	PISTF	789	2.0 meters
Mattawoman Creek Tidal Fresh	MATTf	792	1.0 meters
Lower Potomac River Oligohaline	POTOH1	1,387 ²	2.0 meters
Lower Potomac River Oligohaline	POTOH2	262	1.0 meters
Lower Potomac River Oligohaline	POTOH3	1,153	1.0 meters
Lower Potomac River Mesohaline	POTMH	7,088 ²	1.0 meters
Upper Chesapeake Bay	CB2OH	705	0.5 meters
Upper Central Chesapeake Bay	CB3MH	1,370	0.5 meters
Middle Central Chesapeake Bay	CB4MH	2,533	2.0 meters
Lower Central Chesapeake Bay	CB5MH	8,270 ²	2.0 meters

¹ The segments West Branch Patuxent River (WBRTF-application depth = 0.5 meters), and Lower Patuxent River Mesohaline Subsegments 3 and 6 (PAXMH3 & PAXMH6-application depths = 0.5 meters), and the Anacostia River Tidal Fresh (ANATF-application depth = 0.5 meters) are not listed above because the SAV Restoration goal for each segment is 0 acres, based on no historical mapped SAV and because the available bathymetry data is too limited to allow for a calculation of an SAV restoration acreage goal using the method described in the U.S. Environmental Protection Agency publication "Ambient Water Quality Criteria for

Dissolved Oxygen, Water Clarity and Chlorophyll a for the Chesapeake Bay and its tidal Tributaries—2007 Addendum (EPA 903-R-07-003)". These segments have been assigned a water clarity criteria and application depth. Attainment of the shallow-water designated use will be determined using the method outlined in §C(9)(a)(iii) and (e) of this regulation.

²Maryland portion of the segment.

(d) SAV No Grow Zones. Certain Chesapeake Bay segments contain areas designated as shallow water use that are not suitable for growth of submerged aquatic vegetation due to natural conditions and permanent physical alterations. Tables V-1 and Figures V-1 to V-12 in the 2004 U.S. Environmental Protection Agency publication "Technical Support Document for Identification of Chesapeake Bay Designated Uses and Attainability — 2004 Addendum (EPA 903-R-04-006)", which is incorporated by reference, indicate the SAV No Grow Zones. The segments Upper Choptank River (CHOTF), Upper Nanticoke River (NANTF), Upper Pocomoke River (POCTF), and Middle Pocomoke River Oligohaline (POCOH) are entirely SAV no grow zones, therefore, the shallow-water designated use does not apply to these segments.

(e) Implementation. The attainment of the water clarity criteria that apply to the seasonal shallow-water submerged aquatic vegetation use subcategory in the Chesapeake Bay and tidally influenced tributary waters will be determined using the guidelines documented within the U.S. Environmental Protection Agency publications "Ambient Water Quality Criteria for Dissolved Oxygen, Water Clarity and Chlorophyll a for the Chesapeake Bay and its Tidal Tributaries (EPA 903-R-03-002)", "Ambient Water Quality Criteria for Dissolved Oxygen, Water Clarity and Chlorophyll a for the Chesapeake Bay and its Tidal Tributaries — 2004 Addendum (EPA 903-R-04-005)", "Ambient Water Quality Criteria for Dissolved Oxygen, Water Clarity and Chlorophyll a for the Chesapeake Bay and its Tidal Tributaries — 2007 Addendum (EPA 903-R-07-003)", "Ambient Water Quality Criteria for Dissolved Oxygen, Water Clarity and Chlorophyll a for the Chesapeake Bay and its Tidal Tributaries — 2008 Technical Support for Criteria Assessment Protocols Addendum (EPA 903-R-08-001)", "Technical Support Document for Identification of Chesapeake Bay Designated Uses and Attainability (EPA 903-R-03-004)", and "Technical Support Document for Identification of Chesapeake Bay Designated Uses and Attainability — 2004 Addendum (EPA 903-R-04-006)" which are incorporated by reference.

(10) Chlorophyll a. Concentrations of chlorophyll a in free-floating microscopic aquatic plants (algae) may not exceed levels that result in ecologically undesirable consequences that would render tidal waters unsuitable for designated uses.

(11) Compliance Schedules for Protection of Downstream Uses in Tidal Waters.

(a) The compliance schedule provisions of COMAR 26.08.04.02C are applicable to discharge permits issued to existing dischargers which contain new or revised effluent limitations based on water quality standards contained in §C(8) and (9) of this regulation.

(b) An upstream state issuing discharge permits to existing dischargers which contain new or revised effluent limitations based on the water quality standards contained in §C(8) and (9) of this regulation may apply the compliance schedule provisions of COMAR 26.08.04.02C.

C-1. Criteria for Class II-P Waters—Support of Estuarine and Marine Aquatic Life and Shellfish Harvesting and Public Water Supplies. The following criteria apply:

(1) The criteria for Class II waters in §C(1)—(8), (9)(a)—(c), (10), and (11); and

(2) All toxic substance criteria:

(a) For protection of fresh water and freshwater-adapted estuarine aquatic organisms apply; and

(b) To protect public water supplies and the wholesomeness of fish and shellfish for human consumption.

D. Criteria for Class III Waters — Nontidal Cold Water.

(1) Bacteriological — same as Class I waters.

(2) Dissolved Oxygen. The dissolved oxygen concentration may not be less than 5 milligrams/liter at any time, with a minimum daily average of not less than 6 milligrams/liter.

(3) Temperature.

(a) The maximum temperature outside the mixing zone determined in accordance with Regulation .05 of this chapter or COMAR 26.08.03.03—.05 may not exceed 68°F (20°C) or the ambient temperature of the surface waters, whichever is greater.

(b) Ambient temperature — Same as Class I.

(c) A thermal barrier that adversely affects salmonid fish may not be established.

(d) It is the policy of the State that riparian forest buffer adjacent to Class III waters shall be retained whenever possible to maintain the temperatures essential to meeting this criterion.

(4) pH — same as Class I waters.

(5) Turbidity — same as Class I waters.

(6) Color — Same as Class I-P waters.

(7) Total Residual Chlorine (TRC). Except as provided in COMAR 26.08.03.06, the Department may not issue a permit allowing the use of chlorine or chlorine-containing compounds in the treatment of wastewaters discharging to Class III and Class III-P waters.

(8) Toxic Substance Criteria. All toxic substance criteria to protect:

(a) Fresh water aquatic organisms apply; and

(b) The wholesomeness of fish for human consumption apply.

E. Criteria for Class III-P Waters — Nontidal Cold Water and Public Water Supplies.

(1) Exception. Authorized operation of the Little Seneca Creek Dam means that all operational activities permitted are met under the conditions of a dam operating permit issued by the Department of Natural Resources under Natural Resources Article, §§8-801—8-814, Annotated Code of Maryland, and COMAR 08.05.03. Injury resulting from the authorized operation of Little Seneca Creek Dam to the Class III natural trout fishery recognized in the stream use designation assigned to Little Seneca Creek in Regulation .08 of this chapter is not considered a violation of this chapter.

(2) The following criteria apply:

(a) The criteria for Class III waters in §D(1)—(7); and

(b) All toxic substance criteria to protect:

(i) Fresh water aquatic organisms; and

(ii) Public water supplies and the wholesomeness of fish for human consumption.

F. Criteria for Class IV Waters — Recreational Trout Waters.

- (1) Bacteriological — same as Class I waters.
- (2) Dissolved oxygen — same as Class I waters.
- (3) Temperature.

(a) The maximum temperature outside the mixing zone determined in accordance with Regulation .05 of this chapter or COMAR 26.08.03.03—.05 may not exceed 75°F (23.9°C) or the ambient temperature of the surface waters, whichever is greater.

(b) Ambient temperature — Same as Class I.

(c) A thermal barrier that adversely affects salmonid fish may not be established.

(d) It is the policy of the State that riparian forest buffer adjacent to Class IV waters shall be retained whenever possible to maintain the temperatures essential to meeting this criterion.

- (4) pH — same as Class I waters.
- (5) Turbidity — same as Class I waters.
- (6) Color — same as for Class I waters.
- (7) Toxic Substance Criteria. All toxic substance criteria to protect:
 - (a) Fresh water aquatic organisms apply; and
 - (b) The wholesomeness of fish for human consumption apply.

G. Criteria for Class IV-P Waters — Recreational Trout Waters and Public Water Supplies. The following criteria apply:

- (1) The criteria for Class IV waters in §F(1)—(6); and
- (2) Toxic Substance Criteria. All toxic substance criteria to protect:
 - (a) Fresh water aquatic organisms, and
 - (b) Public water supplies and the wholesomeness of fish for human consumption.

H. Criteria for Public Water Supply Reservoirs. The following criteria apply in freshwater reservoirs designated Class I-P, III-P or IV-P:

- (1) The arithmetic mean of a representative number of samples of chlorophyll a concentrations, measured during the growing season (May 1 to September 30) as a 30-day moving average may not exceed 10 micrograms per liter; and
- (2) The 90th-percentile of measurements taken during the growing season may not exceed 30 micrograms per liter.

.03-4 Biological Water Quality Criteria.

A. Quantitative assessments of biological communities in streams (biological criteria) may be used separately or in conjunction with the chemical and physical criteria promulgated in this chapter to assess whether water quality is consistent with the purposes and uses in Regulations .01 and .02 of this chapter.

B. The results of the quantitative assessments of biological communities shall be used for purposes of water quality assessment, including, but not limited to, those assessments required by §§303(d) and 305(b) of the federal Clean Water Act (33 U.S.C. §§1313(d) and 1315(b)).

C. These assessments shall use documented methods that have been subject to technical review, produce consistent and repeatable results, and are objectively interpretable.

D. In using biological criteria to determine whether aquatic life uses are being met, the Department shall allow for the uncertainty and natural variability in environmental monitoring results by using established quantitative and statistical methodologies to establish the appropriate level of uncertainty for these determinations.

E. The Department shall determine whether the application and interpretation of the assessment method are appropriate. In those instances where the Department determines the assessment method is not appropriate, it will provide its justification for that determination.

.04 Antidegradation Policy.

A. Waters of this State shall be protected and maintained for existing uses and the basic uses of water contact recreation, fishing, protection of aquatic life and wildlife, and agricultural and industrial water supply as identified in the Use Class designations.

B. Consistent with the Federal Act, existing uses and the level of water quality necessary to protect existing uses for any water body shall be maintained.

C. Certain waters of this State possess an existing quality that is better than the water quality standards established for them. The quality of these waters shall be maintained unless:

(1) The Department determines a change in quality is justifiable as a result of necessary economic or social development; and

(2) The change will not diminish uses made of, or presently existing, in these waters.

D. To accomplish the objective of maintaining existing water quality:

(1) New and existing point sources shall achieve the highest applicable statutory and regulatory effluent requirements; and

(2) Nonpoint sources shall achieve all cost effective and reasonable best management practices for nonpoint source control.

E. The Department shall ensure that existing uses are maintained and protected and support changes to designated uses and associated criteria in any circumstances where the designated use and criteria do not reflect and protect uses that are being attained. Changes in designated uses and associated criteria to less stringent uses and criteria may only be undertaken when:

(1) The designated use is not attainable because of natural causes;

(2) The designated use is not attainable because of irretrievable man-induced conditions;
or

(3) Controls more stringent than the effluent limitations and national performance standards mandated by the Federal Act, and required by the Department, would result in substantial and widespread economic and social impact.

F. The Department shall provide public notice and opportunity for a public hearing on the proposed change before:

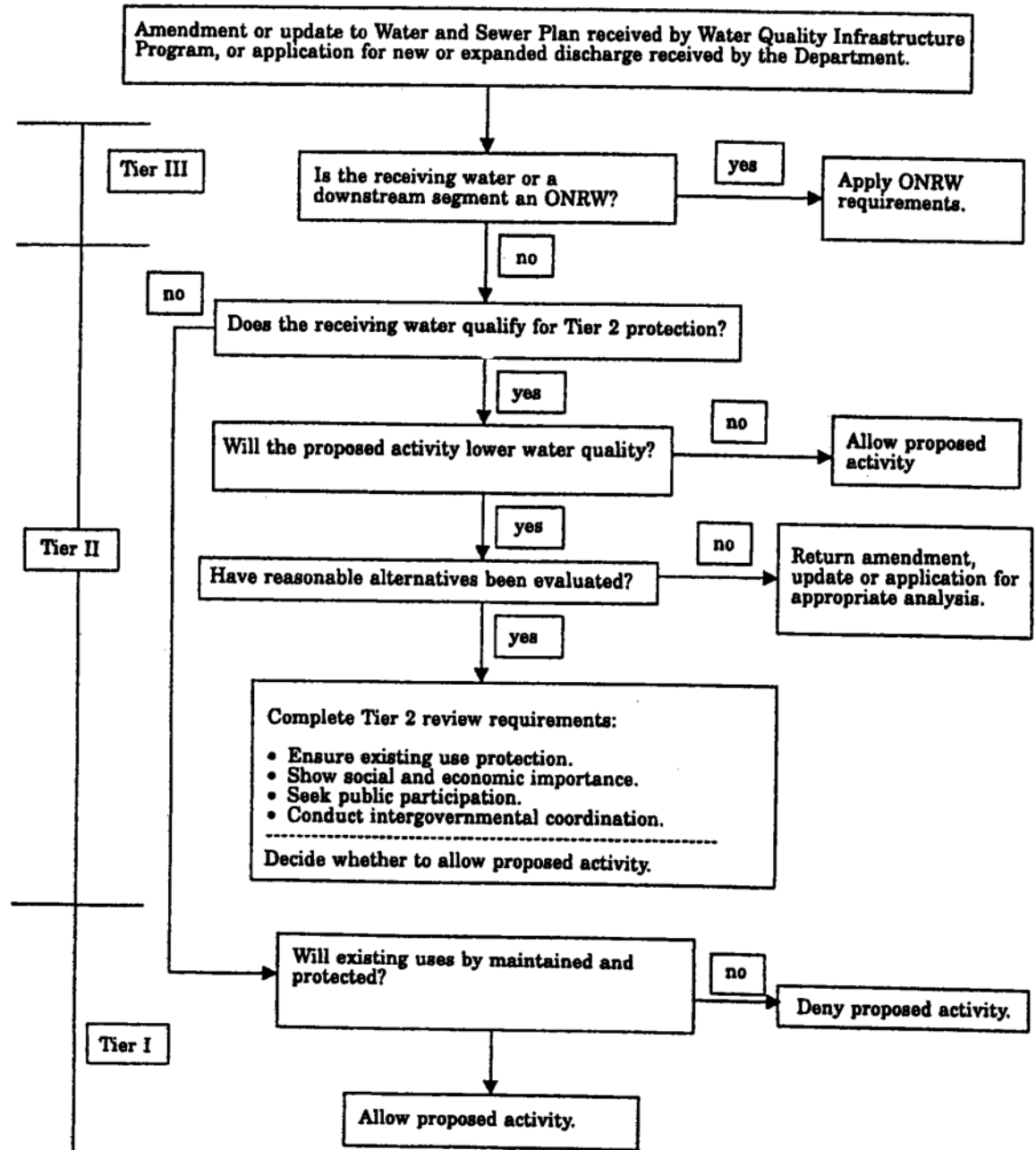
(1) Permitting a change in high quality waters; or

(2) Changing the stream use designation.

G. Water which does not meet the standards established for it shall be improved to meet the standards.

H. Maryland's Antidegradation Procedure Flow Chart.

Maryland's Antidegradation Procedure



.04-1 Antidegradation Policy Implementation Procedures: Tier I Level of Protection — Existing Uses and Designated Uses.

A. All waters of the State shall receive Tier I protection which requires the protection and maintenance of existing uses and designated uses.

B. Protections. Waters that have demonstrated an existing use that is not protected by the water quality criteria specified for the current designated use for this water body shall be protected so as to maintain the existing use and the water quality necessary to protect the existing use.

C. Implementation of the Tier I level of Protection for Cold Water Existing Uses. The determination and protection of cold water existing uses in Maryland will be implemented according to the "Cold Water Existing Use Determinations: Policy and Procedures (Maryland Department of the Environment, May 12, 2021)", which is incorporated by reference.

D. Compilation and Maintenance of the List of Waters with Existing Uses. The Department shall compile and maintain, on its website, a public list of the waters with an existing use that is not protected by the currently designated use and associated water quality criteria.

.04-2 Antidegradation Policy Implementation Procedures: Tier II Level of Protection — High Quality Waters.

A. In Maryland, the term "Tier II water" is defined as a water body with water quality that measures significantly better than that required by water quality standards to support its designated uses. A Tier II watershed is defined as the area of land that contributes runoff to a Tier II waterbody and any discharges to streams upstream of and including the Tier II waterbody. Significantly better is evaluated statistically to demonstrate at least a 90 percent certainty that the mean of the available data is better than the applicable standard (for example, the criterion is outside the outer bound of the 90 percent confidence interval). Water quality is considered significantly better and waters may be listed as Tier II, if the exclusion under §D of this regulation does not apply and if:

(a) Measured water quality characteristics for which numeric criteria have been promulgated are significantly better than the water quality criteria specified in Regulations .03—.03-3 of this chapter; or

(b) Maryland Biological Stream Survey assessment data indicate that both fish and benthic values of the index of biological integrity are 4.00 or greater.

B. Compilation and Maintenance of the List of High Quality Tier II Waters. The Department shall compile and maintain a public list of the Tier II waters. That list is contained in §N of this regulation. All readily available information may be considered to determine a listing. Tier II listings shall be made only for those specific characteristics for which monitoring data indicates the water body exceeds numeric water quality criteria or thresholds established under the narrative standards for biocriteria. The Department shall consider information available from the categories listed under §§A and D of this regulation.

C. Designation for Specific Water Quality Measures. Where a water body is designated a Tier II water based on a specific water quality measure, potential impacts to only that specific characteristic shall be subject to Tier II review. For example, where a water body is designated Tier II because of high dissolved oxygen, only potential impacts to dissolved oxygen are subject to Tier II review.

D. Waters That May Not Be Listed as Tier II. Water bodies included in the List of Impaired Waters (303(d) List) are not Tier II waters for the impairing substance.

E. Antidegradation Review — General. An antidegradation review of updated, new, or proposed amendments to Water and Sewerage Plans (County Plans), wetlands and waterways permits, water quality certifications, or discharge permits in a Tier II watershed is required to assure consistency with antidegradation requirements. An applicant for proposed amendments to County Plans, a wetlands and waterways permit, water quality certification, or discharge permits in a Tier II watershed that will result in a new, or an increased, permitted annual discharge of pollutants or a potential impact to water quality shall evaluate alternatives to eliminate or reduce discharges or impacts. If impacts are unavoidable (as defined in §H of this regulation), an applicant shall prepare and document a social and economic justification. The Department shall determine, through the public processes for each of these permits or authorizations, whether these activities can be justified.

F. Need for Tier II Antidegradation Review.

(1) Permits and Authorizations. Before submitting an application for a new or major modification of an existing discharge permit or Notice of Intent for authorization under a general permit, wetlands and waterways permit, or water quality certification, the discharger

or applicant shall determine whether the receiving water body is in a Tier II watershed by consulting the list of Tier II waters.

(2) County Plans. As part of its continuing planning process, the Department shall review proposed updates or amendments to County Plans for any new or major modifications to discharges to a Tier II watershed. If a proposed update or amendment to a County Plan results in a new discharge or a major modification of an existing discharge to a Tier II watershed, the applicant shall perform a Tier II antidegradation review and:

(a) State final action letters for updated County Plans or proposed amendments to the County Plan, such as changes to water or sewerage service areas, shall, at a minimum, include notification that portions of the updated Plan or amendments to service areas may impact Tier II watersheds; and

(b) For updates or amendments to the County Plans that require discharge permits that grant new discharges or an increase or modification to an existing discharge, the County shall be notified that the applicant for the permit will be required to complete an antidegradation review.

(3) Exemptions. The requirement to perform a Tier II antidegradation review does not apply to individual discharges of treated sanitary wastewater of less than 5,000 gallons per day if all of the existing and designated uses continue to be met.

G. Tier II Antidegradation Review.

(1) If a Tier II antidegradation review is required, the applicant shall provide an analysis of reasonable alternatives that do not require direct discharge or a potential water quality impact to a Tier II watershed. The analysis shall include cost data and estimates to determine the cost effectiveness and feasibility of the alternatives.

(2) If the analysis in §G(1) of this regulation shows that the alternatives are cost effective and feasible, the alternative is required as a condition of the permit, authorization, or amendment to the County Plan.

(3) If the analysis in §G(1) of this regulation shows that the alternatives are not cost effective and feasible, the applicant shall provide the Department with plans to configure or structure the discharge or other regulated activities that may cause a potential water quality impact so as to minimize the use of the assimilative capacity of the water body. The assimilative capacity of the water body is the difference between the water quality at the time the water body was designated as Tier II, the baseline, and the water quality criterion.

(4) An applicant shall update an antidegradation review when applying for a new or major modification to an existing permit or authorization.

H. Potential Determinations Resulting from Antidegradation Reviews.

(1) If there is a cost-effective alternative to direct discharge or water quality impacts, the applicant shall implement the alternative and it shall be a condition of the permit or authorization.

(2) If there is no cost-effective alternative to direct discharge or water quality impacts, but there is potential for further minimization of the use of assimilative capacity, the applicant shall revise the initial application to further minimize the use of assimilative capacity, and it shall be a condition of the permit or authorization. If the minimization of the use of assimilative capacity is adequate, then no social and economic justification (SEJ) is required.

(3) If there is no cost-effective alternative to direct discharge or water quality impacts, minimization of the use of assimilative capacity is not adequate, and the SEJ does not justify the water quality impact, the permit application or authorization shall be denied.

(4) If there is no cost-effective alternative to direct discharge or water quality impacts, all reasonable efforts have been made to minimize the use of assimilative capacity, and the SEJ is adequate and justifies the discharge or water quality impacts, the discharge permit shall be granted subject to other applicable requirements.

I. Social and Economic Justification (SEJ).

(1) An SEJ shall be submitted if:

(a) No cost-effective alternative to the discharge or water quality impacts is available; or

(b) The cumulative degradation resulting from nonpoint source pollution and any other permitted discharges would diminish water quality.

(2) To allow for natural variability, water quality shall be considered diminished only if the assimilative capacity as defined in §G(3) of this regulation is cumulatively reduced by more than 25 percent from the baseline water quality of either benthic or fish IBI value used to make the Tier II stream designation identified in §N of this regulation.

J. Demonstrating Social and Economic Justification for an Impact to Tier II Waters.

(1) In order to promote compact development, maintain habitat and open lands, and minimize water impacts in undeveloped areas, the requirement for social and economic justification is met if all of the following demonstrations are made:

(a) The watershed affecting the Tier II water is located in a priority funding area as defined in State Finance and Procurement Article, §5-7B-02, Annotated Code of Maryland;

(b) The Department determines, in consultation with the Maryland Department of Planning, that the local jurisdiction in which the watershed affecting Tier II waters are located is using, to the extent reasonably practical, innovative development approaches to minimize impacts to water quality from development;

(c) Physical development after the date of the Tier II listing is necessary to accommodate the projected growth within the watershed, and use of innovative development approaches are maximized to the extent reasonably practicable to encourage redevelopment, reuse, and infill development; and

(d) If the Department of Planning's growth projections for the watershed affecting the Tier II waters demonstrate that additional physical development of undeveloped land is required to accommodate the projected growth and that development is consistent with the applicable county master plan.

(2) The approaches described in §J(1)(b) of this regulation include, but are not limited to, innovative stormwater management and sediment and erosion control design practices, green building design techniques, nutrient removal technology for septic systems, innovative technologies designed to reduce point source discharges of pollutants, uniform building codes designed to remove impediments to rehabilitation projects, model infill development guidelines designed by the Maryland Department of Planning, and transit-oriented development.

K. Components of the Social and Economic Justification.

(1) Components of the SEJ may vary depending on factors including, but not limited to, the extent and duration of the impact from the proposed discharge or regulated activity and the existing uses of the water body.

(2) The economic analyses shall include impacts that result from treatment beyond the costs to meet technology-based or water quality-based requirements.

(3) The economic analysis shall address the cost of maintaining high water quality in Tier II waters and the economic benefit of maintaining Tier II waters.

(4) The economic analysis shall determine whether the costs of the pollution controls needed to maintain the Tier II water would limit growth or development in the watershed including the Tier II water.

L. Department Responsibilities.

(1) The Department shall determine whether the SEJ is adequate and demonstrates that the costs of water pollution controls are reasonable and would not limit development or growth and, if not, shall determine whether lowering of the water quality is unavoidable for necessary development or growth to take place in the watershed.

(2) The Department shall determine whether the SEJ demonstrates that the impact to water quality is necessary for development or growth to take place in the watershed. Evaluation of the SEJ shall consider the relative magnitude of costs and benefits of development, recognizing the difficulty in quantifying benefits, and the extent to which denial of the amendment, permit, or authorization would substantially impact future development within the watershed.

(3) When the Department proposes to issue a tentative determination to either issue or deny the permit application, the notice of tentative determination shall state that these waters are designated as Tier II and, if applicable, that a social and economic justification is available for review.

(4) Existing in-stream water uses and the level of water quality necessary to protect existing uses shall be maintained and protected.

(5) All required point and nonpoint source controls under State statutes and regulations shall be achieved.

M. Public Participation.

(1) Public participation for a permit to discharge to a Tier II watershed is the same as that required for any permit subject to the Administrative Procedure Act or the requirements of Environment Article, Title 1, Subtitle 6, Annotated Code of Maryland.

(2) If an SEJ is not required, the public notice shall reflect the Tier II status of the waterbody and note that an SEJ is not required and note the justification.

(3) If an SEJ is required, the public notice shall reflect the Tier II status of the waterbody and note that an SEJ is required, and the Department shall make the SEJ available for review.

N. List of Tier II Waters Based on Maryland Biological Stream Survey (fish and benthic macroinvertebrate) Index Scores.

Date	Stream Name	County	12-Digit Watershed	From Lat	From Long	To Lat	To Long	Baseline: Fish IBI	Benthic IBI
2007	Black Sulphur Run 1	Allegany	021405110138	39.66571	-78.49952	39.65183	-78.47808	4.33	4.25
2007	Elklick Run 1	Allegany	021410040090	39.57690	-78.91140	39.57095	-78.93507	4.00	4.50
2007	Fifteenmile Creek 1	Allegany	021405110137	39.71230	-78.44577	39.70747	-78.45106	4.67	4.25
2003	Fifteenmile Creek 3	Allegany	021405110135	39.64046	-78.39719	39.63082	-78.38600	5.00	4.25
2007	Fifteenmile Creek 4	Allegany	021405110137	39.71921	-78.44378	39.71230	-78.44577	4.67	4.00
2007	Fifteenmile Creek 5	Allegany	021405110137	39.70188	-78.44975	39.69293	-78.45128	4.67	4.25
2011	Fifteenmile Creek 6	Allegany	021405110135	39.65610	-78.40009	39.65591	-78.39701	4.67	4.00
2007	Town Creek 1	Allegany	021405120122	39.54048	-78.54280	39.52337	-78.54404	4.67	4.25
2007	White Sulphur Run 1	Allegany	021405110137	39.65183	-78.47808	39.66107	-78.45709	4.00	4.25
2003	Sideling Hill Creek 1	Allegany, Washington	021405100148	39.66097	-78.36225	39.63948	-78.33408	4.67	4.25
2021	Wilson Owens Branch 1	Anne Arundel	021311020914	38.825626	-76.68624	38.825834	-76.697119	4.67	4.14
2003	Lyons Creek 1	Anne Arundel, Calvert	021311020910	38.76807	-76.62204	38.76693	-76.63353	5.00	4.71
2011	Lyons Creek 3	Anne Arundel, Calvert	021311020909	38.76472	-76.65905	38.75572	-76.67206	4.33	4.00

2009	Patuxent River 1	Anne Arundel, Prince George's	021311040937	39.01110	-76.73676	39.00709	-76.73319	4.00	4.71
2007	Beetree Run 1	Baltimore Co.	021308050311	39.68323	-76.66591	39.66633	-76.67247	4.33	5.00
2007	Blackrock Run 1	Baltimore Co.	021308050303	39.54230	-76.73384	39.52739	-76.72217	4.67	4.00
2021	Bush Cabin Run 1	Baltimore Co.	021308050306	39.599083	-76.707107	39.61048	-76.681793	4.00	4.84
2007	Cooks Branch 1	Baltimore Co.	021309071048	39.43616	-76.84026	39.43789	-76.86894	4.67	4.84
2007	Cooks Branch 2	Baltimore Co.	021309071048	39.43792	-76.86879	39.43825	-76.87277	4.84	5.00
2021	Deer Creek 1	Baltimore Co.	021202020332	39.713068	-76.597628	39.70742	-76.590096	4.67	4.33
2021	Deer Creek 9	Baltimore Co.	021202020332	39.72117	-76.609265	39.713068	-76.597628	4.67	4.67
2007	Delaware Run 1	Baltimore Co.	021308050303	39.49910	-76.77293	39.50196	-76.76216	4.00	4.33
2011	Harris Mill Creek 1	Baltimore Co.	021202020332	39.71528	-76.62412	39.71307	-76.59763	4.67	4.00
2003	Keyzers Run 1	Baltimore Co.	021309071048	39.46914	-76.83976	39.47156	-76.87929	5.00	4.00
2008	Little Falls 1	Baltimore Co.	021308050309	39.62193	-76.63046	39.61385	-76.62302	4.33	4.00
2007	North Branch Patapsco River UT 1	Baltimore Co.	021309071048	39.48558	-76.84373	39.49465	-76.86359	4.67	4.67
2011	North Branch Patapsco River UT 2	Baltimore Co.	021309071048	39.494629	-76.86357	39.49571	-76.837947	4.17	4.56

2007	Peggys Run 1	Baltimore Co.	021308060314	39.60906	-76.79718	39.61597	-76.79254	5.00	4.00
2007	Peggys Run UT 1	Baltimore Co.	021308060314	39.60402	-76.82804	39.60906	-76.79718	5.00	4.67
2007	Red Run 1	Baltimore Co.	021309051045	39.41111	-76.81224	39.40074	-76.79887	4.67	4.17
2005	Timber Run 1	Baltimore Co.	021309071048	39.44400	-76.84151	39.43794	-76.86878	4.48	4.57
2007	Gunpowder Falls 1	Baltimore Co., Carroll	021308060316	39.69574	-76.80339	39.68389	-76.76963	4.00	4.50
2011	Murphy Run 1	Baltimore Co., Carroll	021308060314	39.62639	-76.83087	39.62004	-76.81855	5.00	4.00
2007	First Mine Branch 1	Baltimore Co., Harford	021308050309	39.62700	-76.55549	39.62524	-76.59857	4.33	4.33
2003	Little Gunpowder Falls 1	Baltimore Co., Harford	021308040298	39.50453	-76.42982	39.48592	-76.42739	4.00	4.33
2003	Little Gunpowder Falls 2	Baltimore Co., Harford	021308040298	39.48150	-76.42516	39.47306	-76.40243	4.33	4.17
2008	Little Gunpowder Falls 3	Baltimore Co., Harford	021308040298	39.52930	-76.51334	39.52561	-76.49405	4.00	4.00
2011	Little Gunpowder Falls 4	Baltimore Co., Harford	021308040298	39.47306	-76.40243	39.46108	-76.39091	4.00	4.33
2007	Choptank River UT 1	Caroline	021304040494	38.89921	-75.80250	38.90032	-75.82887	4.33	4.43
2007	Faulkner Branch 1	Caroline	021303060611	38.71178	-75.79381	38.71002	-75.77321	4.00	4.71
2007	Forge Branch 1	Caroline	021304040505	38.99411	-75.81912	38.96356	-75.82510	4.67	4.14

2008	Herring Run 1 (Caroline Co.)	Caroline	021304040490	38.85163	-75.78393	38.84814	-75.80201	5.00	4.43
2008	Hog Creek 1	Caroline	021304040484	38.75614	-75.90846	38.78274	-75.93954	5.00	4.71
2007	Hunting Creek 1	Caroline	021304030471	38.71848	-75.88225	38.70389	-75.89296	4.33	4.43
2009	Marsh Creek 1	Caroline	021304040476	38.71487	-75.93561	38.70310	-75.94396	4.00	4.71
2007	Robins Creek 1	Caroline	021304040486	38.79651	-75.84430	38.81482	-75.86926	4.67	4.43
2008	Sullivan Branch 1	Caroline	021303060614	38.75398	-75.78257	38.72927	-75.76085	4.33	4.43
2008	Tull Branch 1	Caroline	021303060613	38.74128	-75.79902	38.71843	-75.77007	4.33	4.14
2008	Watts Creek 1	Caroline	021304040492	38.87704	-75.78880	38.85750	-75.81524	4.67	5.00
2008	Tuckahoe River 1	Caroline, Queen Anne's	021304050531	38.99067	-75.92972	38.98128	-75.93486	4.67	5.00
2016	Tuckahoe River 2	Caroline, Queen Anne's	021304050533	38.98128	-75.93486	38.97278	-75.93518	4.67	5.00
2007	Beaver Run 1	Carroll	021309071057	39.52564	-76.94339	39.51553	-76.93306	4.67	4.00
2012	Beaver Run 2	Carroll	021309071057	39.51555	-76.93302	39.50302	-76.91245	4.50	4.00
2007	Gillis Falls 1	Carroll	021309081030	39.41843	-77.07169	39.41370	-77.07350	5.00	4.33
2003	Gillis Falls 2	Carroll	021309081025	39.38573	-77.08755	39.36202	-77.06503	4.67	4.00

2007	Joe Branch 1	Carroll	021309071050	39.49684	-76.98763	39.47308	-76.98504	5.00	4.67
2007	Little Morgan Run 1	Carroll	021309071049	39.44303	-77.00405	39.43667	-76.98714	5.00	5.00
2008	Little Morgan Run 2	Carroll	021309071049	39.43418	-76.97782	39.42667	-76.96086	4.00	4.33
2003	Little Morgan Run UT 1	Carroll	021309071049	39.44732	-77.02609	39.44303	-77.00405	5.00	5.00
2007	Little Morgan Run UT 2	Carroll	021309071049	39.45284	-76.99936	39.43667	-76.98714	4.33	4.00
2008	Middle Run 1	Carroll	021309071056	39.49246	-76.94485	39.47679	-76.92717	5.00	4.33
2007	Morgan Run 1	Carroll	021309071050	39.47892	-76.99912	39.47308	-76.98504	4.33	4.00
2007	Morgan Run UT 1	Carroll	021309071047	39.41909	-76.94624	39.42504	-76.94703	4.67	4.00
2007	North Branch Patapsco River 1	Carroll	021309071048	39.52245	-76.87527	39.51010	-76.88719	4.00	4.17
2009	Piney Branch 2 (Carroll Co.)	Carroll	021309081026	39.37318	-77.01189	39.35703	-76.99621	4.67	4.00
2007	South Branch Gunpowder Falls UT 1	Carroll	021308060317	39.66661	-76.88386	39.70835	-76.85661	5.00	4.00
2007	South Branch Patapsco River 1	Carroll, Howard	021309081025	39.36322	-77.07507	39.36202	-77.06503	5.00	4.00
2007	Basin Run 1	Cecil	021202030344	39.65615	-76.08164	39.65530	-76.11020	4.33	4.67

2007	Big Elk Creek 1	Cecil	021306060386	39.66985	-75.82816	39.66294	-75.82655	4.00	4.33
2007	Big Elk Creek 2	Cecil	021306060386	39.66297	-75.82656	39.61737	-75.82005	4.67	4.43
2007	Gramies Run 1	Cecil	021306060387	39.70360	-75.85958	39.66983	-75.82808	4.50	4.67
2003	Little North East Creek 1	Cecil	021306080377	39.72566	-75.95853	39.66625	-75.93462	4.67	4.67
2007	Mill Creek 1	Cecil	021202010319	39.58515	-76.05275	39.56460	-76.06549	4.00	4.33
2007	Principio Creek 1	Cecil	021306090380	39.64415	-76.03558	39.61434	-76.03344	4.67	4.00
2007	Principio Creek 2	Cecil	021306090380	39.59454	-76.02519	39.58707	-76.02894	4.00	4.67
2009	Principio Creek 3	Cecil	021306090380	39.58703	-76.02897	39.57064	-76.03058	4.33	4.00
2003	Principio Creek UT 1	Cecil	021306090380	39.61544	-76.05885	39.60709	-76.03070	4.22	4.89
2007	Hill Top Fork UT 1	Charles	021401100775	38.48924	-77.16391	38.46113	-77.15144	4.33	4.43
2008	Hoghole Run 1	Charles	021401090773	38.51805	-77.03583	38.50957	-77.02469	4.13	4.60
2009	Jennie Run 1	Charles	021401090774	38.56786	-76.98150	38.54646	-77.01716	4.33	4.29
2016	Marbury Run 1	Charles	021401110780	38.56780	-77.14674	38.57919	-77.15872	4.33	4.14
2007	Mattawoman Creek UT 1	Charles	021401110780	38.53477	-77.16806	38.54767	-77.17246	4.00	4.43

2003	Mattawoman Creek UT 2	Charles	021401110780	38.53761	-77.18100	38.55605	-77.19043	4.33	4.71
2008	Mattawoman Creek UT 3	Charles	021401110781	38.56562	-77.13269	38.58862	-77.12501	4.67	4.43
2009	Mill Dam Run 1	Charles	021401080767	38.56503	-76.83737	38.56415	-76.84207	4.67	4.71
2008	Mill Run 3 (Charles Co.)	Charles	021401100779	38.49943	-77.08434	38.47626	-77.08420	4.11	4.62
2011	Mill Run 5	Charles	021401100779	38.52755	-77.078741	38.52029	-77.090089	4.00	4.43
2007	Mill Run UT 1 (Charles Co.)	Charles	021401100779	38.51104	-77.10720	38.50039	-77.08561	4.50	4.29
2008	Nanjemoy Creek 1	Charles	021401100777	38.42378	-77.21466	38.41522	-77.20368	4.00	4.86
2003	Old Womans Run 1	Charles	021401110784	38.59669	-77.02960	38.59612	-77.05501	4.33	4.71
2007	Old Womans Run 2	Charles	021401110784	38.59708	-77.00973	38.59669	-77.02960	4.67	4.43
2007	Piney Branch 1 (Charles Co.)	Charles	021401080764	38.56180	-76.87701	38.55004	-76.87041	4.33	4.43
2008	Potomac River UT 1	Charles	021401020789	38.46814	-77.24377	38.47086	-77.26168	4.67	4.14
2011	Potomac River UT 2	Charles	021401020789	38.48546	-77.23682	38.47495	-77.25927	4.00	4.43
2007	Reeder Run 1	Charles	021401020789	38.50839	-77.18502	38.51782	-77.20231	4.84	4.29
2003	Reeder Run 2	Charles	021401020789	38.51592	-77.21343	38.53274	-77.22703	4.33	4.71

2016	Reeder Run 3	Charles	021401020789	38.50269	-77.18977	38.50940	-77.20911	4.78	4.52
2012	Swanson Creek 4	Charles	021311010892	38.56522	-76.76043	38.56323	-76.75701	4.00	4.60
2007	Swanson Creek UT 1	Charles	021311010892	38.55236	-76.77384	38.56324	-76.75700	4.67	4.43
2003	Wards Run 1	Charles	021401100778	38.51808	-77.13581	38.51012	-77.14786	4.67	4.71
2009	Wards Run 2	Charles	021401100778	38.50346	-77.15071	38.48449	-77.13184	4.00	4.71
2003	Wolf Den Branch 1	Charles	021401080769	38.63601	-76.82109	38.62192	-76.82043	4.33	4.71
2003	Zekiah Swamp Run 1	Charles	021401080769	38.63464	-76.79846	38.62196	-76.82036	4.33	4.14
2007	Zekiah Swamp Run 2	Charles	021401080768	38.60216	-76.83388	38.59608	-76.83771	4.67	4.71
2003	Zekiah Swamp Run 3	Charles	021401080765	38.58953	-76.84107	38.56355	-76.85086	4.50	4.57
2007	Zekiah Swamp Run 4	Charles	021401080760	38.52679	-76.90389	38.51257	-76.91427	4.67	4.43
2007	Zekiah Swamp Run 5	Charles	021401080760	38.49396	-76.92612	38.48639	-76.92853	4.00	4.71
2007	Zekiah Swamp Run 6	Charles	021401080768	38.61391	-76.83263	38.60216	-76.83388	4.00	4.43
2012	Zekiah Swamp Run 7	Charles	021401080768	38.61910	-76.82968	38.61393	-76.83266	4.17	4.86
2003	Zekiah Swamp Run UT 1	Charles	021401080762	38.52253	-76.87598	38.52817	-76.89208	5.00	4.43

2007	Zekiah Swamp Run UT 2	Charles	021401080766	38.61249	-76.86986	38.58952	-76.84111	4.34	4.00
2008	Zekiah Swamp Run UT 3	Charles	021401080763	38.54068	-76.83338	38.55595	-76.86021	4.33	4.14
2008	Mattawoman Creek 1	Charles, Prince George's	021401110786	38.65497	-76.93916	38.65767	-76.98456	5.00	4.43
2012	Mattawoman Creek 2	Charles, Prince George's	021401110786	38.65234	-76.90833	38.65252	-76.91689	4.00	4.14
2003	Swanson Creek 1	Charles, Prince George's	021311010893	38.60760	-76.74634	38.58927	-76.74244	4.67	5.00
2007	Swanson Creek 2	Charles, Prince George's	021311010890	38.55844	-76.74044	38.55404	-76.72821	4.67	4.14
2007	Swanson Creek 3	Charles, Prince George's	021311010893	38.58927	-76.74244	38.55844	-76.74044	4.67	4.43
2016	Wolf Den Branch 2	Charles, Prince George's	021401080769	38.67283	-76.80444	38.63902	-76.81987	4.00	4.43
2007	Smoots Pond Run 1	Charles, Saint Mary's	021401070751	38.47788	-76.79137	38.49444	-76.80455	5.00	4.43
2007	Blinkhorn Creek 1	Dorchester	021304030467	38.65297	-75.90070	38.65195	-75.93188	4.33	4.71
2003	Davis Millpond Branch 1	Dorchester	021303060607	38.66525	-75.75797	38.67465	-75.77339	4.67	5.00
2008	Skinners Run 1	Dorchester	021303060608	38.67503	-75.82252	38.66851	-75.81497	4.00	4.29
2003	Big Hunting Creek 1	Frederick	021403030251	39.62634	-77.45965	39.60990	-77.41044	4.33	4.25
2008	High Run 1	Frederick	021403030251	39.60468	-77.46215	39.60823	-77.41093	4.00	4.50

2007	Talbot Branch UT 1	Frederick	021403020238	39.46420	-77.13548	39.45535	-77.16043	4.33	4.25
2007	Weldon Creek 1	Frederick	021403020238	39.47694	-77.15018	39.47488	-77.16046	4.00	4.00
2007	Bear Creek 2	Garrett	050202010018	39.65484	-79.36376	39.65316	-79.38472	4.67	4.00
2008	Bear Creek 3	Garrett	050202010018	39.66006	-79.32011	39.65441	-79.33055	4.67	4.25
2008	Bear Creek 4	Garrett	050202010016	39.56476	-79.32195	39.65018	-79.28886	4.22	4.39
2007	Bear Creek 5	Garrett	050202010018	39.65593	-79.33884	39.65482	-79.36370	4.67	4.00
2003	Bear Creek UT 1	Garrett	050202010018	39.64821	-79.34058	39.65559	-79.33808	5.00	4.50
2007	Bear Pen Run 1	Garrett	021410060077	39.59163	-79.14355	39.57341	-79.12028	4.75	4.25
2016	Big Run 1	Garrett	021410060078	39.58348	-79.17124	39.55629	-79.15005	4.88	4.13
2007	Big Run UT 1	Garrett	021410060078	39.57835	-79.19349	39.58348	-79.17124	4.00	4.75
2007	Blacklick Run 1	Garrett	021410060080	39.63910	-79.09647	39.61727	-79.08702	4.00	4.25
2007	Buffalo Run 1	Garrett	050202010019	39.68685	-79.40998	39.69053	-79.40417	4.67	4.00
2008	Buffalo Run 2	Garrett	050202010019	39.69264	-79.43757	39.68915	-79.42334	4.00	4.25
2012	Buffalo Run 3	Garrett	050202010019	39.68781	-79.41738	39.68685	-79.41002	4.00	4.25

2010	Casselman River 1	Garrett	050202040034	39.66851	-79.17745	39.67513	-79.17104	4.67	4.00
2003	Crabtree Creek 1	Garrett	021410060074	39.47779	-79.19210	39.50564	-79.15474	4.47	4.30
2003	Double Lick Run 1	Garrett	021410060076	39.54257	-79.21921	39.53356	-79.20082	4.92	4.38
2007	Dry Run 1	Garrett	021410060077	39.54299	-79.17013	39.52313	-79.14385	4.00	4.50
2007	Hoyes Run 1	Garrett	050202010012	39.53193	-79.40384	39.52879	-79.41254	5.00	4.25
2021	Laurel Run 1	Garrett	050202010019	39.688371	-79.449636	39.6877	-79.439537	4.00	4.25
2011	Laurel Run UT 1	Garrett	021410050050	39.47897	-79.15120	39.47772	-79.11977	4.00	4.25
2003	Little Bear Creek 1	Garrett	050202010016	39.65775	-79.26858	39.65019	-79.28882	4.50	4.25
2008	Little Savage River 1	Garrett	021410060081	39.65111	-78.99097	39.59315	-79.04834	4.00	4.00
2003	Middle Fork Crabtree Creek 1	Garrett	021410060076	39.51193	-79.16195	39.51261	-79.15403	4.67	4.50
2009	Middle Fork Crabtree Creek 2	Garrett	021410060076	39.53353	-79.20087	39.53507	-79.18800	5.00	4.25
2011	Middle Fork Crabtree Creek 3	Garrett	021410060076	39.53507	-79.18800	39.51565	-79.16892	4.00	4.50
2003	Mill Run 1 (Garrett Co.)	Garrett	050202010021	39.71553	-79.34541	39.70909	-79.34891	4.21	4.56
2003	Mill Run 2 (Garrett Co.)	Garrett	050202010021	39.70907	-79.36308	39.71472	-79.38469	4.67	4.00

2003	Mill Run 4 (Garrett Co.)	Garrett	050202010021	39.71883	-79.30088	39.71553	-79.34541	5.00	4.58
2011	Mill Run UT 2 (Garrett Co.)	Garrett	050202010021	39.71594	-79.27141	39.71849	-79.30071	4.50	4.50
2003	Monroe Run 1	Garrett	021410060078	39.54471	-79.22830	39.54944	-79.14434	4.00	4.25
2003	Poplar Lick Run 1	Garrett	021410060079	39.59098	-79.10319	39.58389	-79.09140	4.50	4.38
2003	Puzzley Run 1	Garrett	50202010022	39.69028	-79.22870	39.72189	-79.23219	4.00	4.75
2011	Sand Spring Run 1	Garrett	050202010001	39.257794	-79.473281	39.272048	-79.474658	4.00	4.25
2007	Savage River 1	Garrett	021410060077	39.57974	-79.08983	39.56218	-79.11099	4.34	4.25
2003	Savage River 2	Garrett	021410060077	39.56219	-79.11102	39.54306	-79.13744	4.72	4.29
2009	Savage River 4	Garrett	021410060081	39.59811	-79.05554	39.60227	-79.07229	5.00	4.50
2007	South Branch Bear Creek 1	Garrett	050202010015	39.62367	-79.37594	39.65316	-79.38472	4.33	4.50
2007	South Branch Casselman River 1	Garrett	050202040033	39.62616	-79.19151	39.64653	-79.18124	4.67	4.00
2007	South Branch Casselman River 2	Garrett	050202040033	39.64814	-79.18152	39.66851	-79.17745	4.00	4.25
2011	Spring Lick Run 1	Garrett	021410060074	39.50365	-79.20005	39.49073	-79.17532	4.00	4.25

2011	Toms Spring Run 1	Garrett	021410060076	39.51704	-79.20115	39.51565	-79.16893	4.50	4.75
2016	Wolf Den Run 1	Garrett	021410050047	39.39655	-79.21193	39.38905	-79.19443	4.00	4.00
2016	Wolf Den Run UT 1	Garrett	021210050047	39.41259	-79.22063	39.39655	-79.21193	4.00	4.00
2007	Youghiogheny River UT 1	Garrett	050202010020	39.67943	-79.35317	39.68632	-79.38164	4.00	4.00
2007	Broad Creek 1	Harford	021202050339	39.67899	-76.35243	39.66468	-76.32487	4.00	4.17
2008	Bynum Run UT 1	Harford	021307041131	39.50923	-76.27523	39.50505	-76.28355	4.33	4.00
2012	Cattail Branch UT 1	Harford	021202020328	39.62017	-76.49403	39.63521	-76.49927	5.00	4.33
2007	Deer Creek 2	Harford	021202020329	39.67564	-76.45429	39.67445	-76.44291	4.00	4.67
2003	Deer Creek 3	Harford	021202020324	39.63225	-76.41051	39.61776	-76.39938	4.33	5.00
2003	Deer Creek 4	Harford	021202020322	39.59924	-76.26823	39.60333	-76.24910	4.33	4.33
2008	Deer Creek 5	Harford	021202020330	39.68097	-76.51724	39.67993	-76.50004	4.00	4.00
2008	Deer Creek 6	Harford	021202020327	39.65641	-76.43661	39.65238	-76.43784	4.00	5.00
2008	Deer Creek 7	Harford	021202020322	39.61660	-76.23174	39.62119	-76.21763	4.33	4.00
2009	Deer Creek 8	Harford	021202020327	39.64722	-76.43147	39.63217	-76.41041	4.00	4.33

2007	Deer Creek UT 1	Harford	021202020330	39.64980	-76.55578	39.67578	-76.54223	4.33	4.00
2007	Deer Creek UT 2	Harford	021202020321	39.58866	-76.20168	39.61740	-76.19373	4.33	5.00
2007	Deer Creek UT 3	Harford	021202020324	39.65935	-76.39446	39.64010	-76.35041	4.67	4.00
2007	Falling Branch 1	Harford	021202020329	39.72913	-76.46723	39.67453	-76.44299	4.00	4.33
2007	Hollands Branch 1	Harford	021202020322	39.64115	-76.24400	39.62126	-76.21756	4.00	4.67
2007	Little Deer Creek 1	Harford	021202020328	39.64640	-76.50645	39.65453	-76.49075	4.67	4.33
2008	Little Deer Creek 2	Harford	021202020328	39.65455	-76.49075	39.66009	-76.48109	4.00	4.00
2011	Little Deer Creek UT 1	Harford	021202020328	39.62878	-76.48475	39.66009	-76.48109	4.67	4.33
2008	Otter Point Creek 1	Harford	021307021130	39.43296	-76.29982	39.43281	-76.28558	4.33	4.14
2003	Wet Stone Branch 1	Harford	021202020327	39.63021	-76.45688	39.64721	-76.43147	4.67	4.33
2007	Carrolls Branch 1	Howard	021331060960	39.19818	-76.95531	39.19474	-76.93510	4.00	4.67
2007	Dorsey Branch 1	Howard	021311080968	39.28402	-77.00921	39.26105	-77.04475	4.00	5.00
2007	Patuxent River UT 2	Howard	021311070942	39.18842	-76.97725	39.16340	-76.97520	4.06	4.44
2007	Rocky Gorge Reservoir UT 1	Howard	021311070941	39.17385	-76.96164	39.15066	-76.96862	4.67	4.00

2007	South Branch Patapsco River UT 1	Howard	021309081022	39.34471	-76.96235	39.34836	-76.95941	4.33	5.00
2007	Cypress Branch 1	Kent	021305100427	39.30475	-75.74799	39.28812	-75.78414	4.00	4.14
2009	Cypress Branch 2	Kent	021305100427	39.28429	-75.79552	39.27214	-75.81757	4.67	4.14
2003	East Fork Langford Creek UT 1	Kent	021305060408	39.21050	-76.13505	39.19893	-76.11633	4.67	4.14
2021	Fannels Branch 1	Kent	021305060409	39.189562	-76.107898	39.187236	-76.113317	4.17	4.00
2021	Morgan Creek UT 1	Kent	021305090415	39.306198	-76.016172	39.289815	-76.020911	4.27	4.00
2010	Goshen Run UT 1	Montgomery	021402080864	39.21470	-77.17439	39.21709	-77.14649	4.00	4.75
2003	Patuxent River UT 1	Montgomery	021311080969	39.28851	-77.19257	39.28496	-77.13996	4.17	5.00
2007	Bald Hill Branch 1	Prince George's	021311030925	38.99228	-76.84371	38.92241	-76.82020	4.00	4.14
2007	Beaverdam Creek 1	Prince George's	021402050823	39.02370	-76.85045	39.02190	-76.85974	4.33	4.43
2007	Beaverdam Creek 2	Prince George's	021402050823	39.02287	-76.86218	39.01585	-76.89775	4.33	4.71
2021	District Branch 1	Prince George's	021311020917	38.866772	-76.719393	38.854804	-76.691683	4.34	4.00
2007	Mataponi Creek UT 1	Prince George's	021311020905	38.72979	-76.82511	38.71989	-76.79437	4.00	4.43
2003	Piscataway Creek 1	Prince George's	021402030803	38.73428	-76.86811	38.73258	-76.87590	4.67	4.43

2007	Piscataway Creek 2	Prince George's	021402030799	38.70638	-76.97208	38.69906	-76.98589	4.33	4.14
2007	Rock Creek 1	Prince George's	021311010904	38.69443	-76.75155	38.69093	-76.72613	4.67	4.71
2021	Timothy Branch 1	Prince George's	021401110787	38.710667	-76.854371	38.664667	-76.878959	4.50	4.14
2009	Turkey Branch 1	Prince George's	021311030921	38.84980	-76.84000	38.85763	-76.78847	4.67	4.14
2008	Alder Branch 1	Queen Anne's	021305070395	39.07879	-76.06344	39.07197	-76.07868	4.67	4.71
2003	Andover Branch 1	Queen Anne's	021305100425	39.22355	-75.76977	39.23043	-75.78289	4.17	4.57
2009	Andover Branch 2	Queen Anne's	021305100425	39.23044	-75.78285	39.24174	-75.79593	4.33	5.00
2007	Andover Branch UT 1	Queen Anne's	021305100425	39.21407	-75.80767	39.24699	-75.82277	4.67	4.71
2007	Blockston Branch UT 1	Queen Anne's	021304050529	38.98971	-75.99870	38.98086	-75.97180	4.00	4.14
2003	Browns Branch 3	Queen Anne's	021305080403	39.15968	-75.92076	39.16360	-75.95177	4.33	5.00
2007	Granny Finley Branch 1	Queen Anne's	021305080399	39.08786	-75.95688	39.11766	-76.04025	4.00	4.00
2011	Gravel Run 1	Queen Anne's	021305070397	39.03535	-76.03710	39.05027	-76.06391	4.00	4.02
2011	Island Creek 1	Queen Anne's	021305080398	39.08896	-76.05355	39.11732	-76.06863	4.33	4.14
2008	Mill Stream Branch 1	Queen Anne's	021305070396	39.01998	-76.03938	39.02288	-76.06394	4.67	4.43

2007	Norwich Creek 1	Queen Anne's	021304050522	38.97574	-76.01146	38.95164	-75.99614	4.67	4.71
2011	Norwich Creek 3	Queen Anne's	021304050522	38.94203	-75.99741	38.92547	-75.97541	4.00	4.14
2003	Red Lion Branch 1	Queen Anne's	021305100419	39.22756	-75.90160	39.23418	-75.90438	4.22	4.43
2003	Red Lion Branch 2	Queen Anne's	021305100419	39.18442	-75.89387	39.20305	-75.89646	4.27	4.43
2007	Red Lion Branch 3	Queen Anne's	021305100419	39.20657	-75.89344	39.22756	-75.90160	4.50	4.57
2007	Red Lion Branch UT 1	Queen Anne's	021305100420	39.17411	-75.86903	39.18442	-75.89387	4.33	4.14
2007	Southeast Creek 1	Queen Anne's	021305060401	39.13192	-75.97889	39.13975	-75.98786	4.67	4.43
2008	Southeast Creek 2	Queen Anne's	021305080401	39.13989	-75.98794	39.14592	-75.98986	4.17	4.29
2008	Southeast Creek UT 2	Queen Anne's	021305080401	39.11759	-75.95646	39.11650	-75.96562	4.33	4.71
2008	Southeast Creek UT 3	Queen Anne's	012305080401	39.11651	-75.96563	39.13035	-75.97788	4.44	4.71
2007	Three Bridges Branch 1	Queen Anne's	021305070397	39.05323	-76.03293	39.05027	-76.06391	4.17	4.43
2007	Wye East River UT 1	Queen Anne's	021305030436	38.98305	-76.08860	38.94966	-76.10908	4.67	4.71
2008	Wye East River UT2	Queen Anne's	021305030436	38.99155	-76.03511	38.99231	-76.07751	4.00	4.14
2011	Norwich Creek 2	Queen Anne's/Talbot	021304050522	38.92547	-75.97541	38.91998	-75.96930	4.33	4.71

2007	Burnt Mill Creek 1	Saint Mary's	021401040724	38.36375	-76.65992	38.34639	-76.64235	4.00	4.43
2007	Burnt Mill Creek UT 1	Saint Mary's	021401040724	38.38129	-76.66945	38.37031	-76.65860	4.00	4.71
2007	Chaptico Run 1	Saint Mary's	021401060736	38.37100	-76.75610	38.36489	-76.78197	4.67	4.43
2012	Fisherman Creek 1	Saint Marys	021401030712	38.21065	-76.40307	38.19762	-76.41925	4.67	4.00
2008	Forrest Hall Branch 1	Saint Mary's	021401060742	38.42298	-76.72010	38.38460	-76.74243	5.00	4.14
2007	Hayden Run 1	Saint Mary's	021401060742	38.43916	-76.73770	38.41884	-76.74437	4.33	4.43
2009	Hillton Run 1	Saint Mary's	021401030715	38.24596	-76.46944	38.22383	-76.46161	4.00	4.43
2007	Johns Creek 1	Saint Mary's	021401030714	38.23144	-76.52353	38.23587	-76.49717	4.34	4.43
2008	McIntosh Run 1	Saint Mary's	021401040721	38.32959	-76.63552	38.32555	-76.64338	4.00	4.86
2008	McIntosh Run 2	Saint Mary's	021401040721	38.32555	-76.64337	38.31354	-76.65517	4.00	4.43
2007	Saint Clements Bay UT 1	Saint Mary's	021401050726	38.32481	-76.69673	38.29953	-76.71233	4.33	4.71
2007	Saint Clements Creek 1	Saint Mary's	021401050728	38.34856	-76.73058	38.33257	-76.72384	4.17	4.43
2011	Saint Clements Creek 2	Saint Mary's	021401050730	38.358656	-76.727069	38.348588	-76.730607	4.33	4.71
2007	Saint Mary's River 1	Saint Mary's	021401030717	38.27485	-76.51438	38.25265	-76.50721	4.00	4.71

2010	Saint Mary's River UT 3	Saint Mary's	021401030719	38.27771	-76.51543	38.30595	-76.52726	4.00	4.43
2003	Warehouse Run 1	Saint Mary's	021401030714	38.20522	-76.49843	38.22150	-76.48619	4.67	4.43
2007	Dividing Creek 1	Somerset, Worcester	021302040064	38.21149	-75.57593	38.18183	-75.54768	4.33	5.00
2007	Highfield Creek 1	Talbot	021304050517	38.89321	-75.97110	38.89050	-75.96166	4.17	4.72
2007	Jadwins Creek 1	Talbot	021304050516	38.84859	-75.97328	38.83436	-75.93300	4.00	4.43
2007	Kings Creek 1	Talbot	021304040473	38.79141	-76.02193	38.79367	-75.99319	4.67	4.71
2007	Skipton Creek UT 1	Talbot	021305030434	38.88226	-76.04616	38.87955	-76.05344	4.00	4.43
2003	Adkins Race 1	Wicomico	021302030648	38.33427	-75.37668	38.31965	-75.35493	4.67	4.15
2008	Little Burnt Branch 1	Wicomico	021303040567	38.43934	-75.62701	38.41103	-75.59458	4.00	5.00
2007	Nassawan go Creek 1	Wicomico	021302050668	38.31299	-75.46914	38.30312	-75.46400	4.17	4.57
2007	Plum Creek 1	Wicomico	021303050584	38.51243	-75.70759	38.53541	-75.74588	4.00	4.43
2010	Little Mill Creek 1	Worcester	021301060672	38.02677	-75.46306	38.04621	-75.42736	4.00	4.71
2007	Nassawan go Creek 2	Worcester	021302050668	38.28361	-75.45386	38.25998	-75.46283	4.67	4.21
2008	Nassawan go Creek 3	Worcester	021302050667	38.26000	-75.46286	38.23505	-75.47196	4.56	4.62

.04-3 Antidegradation Policy Implementation Procedures: Tier III Level of Protection — Outstanding National Resource Waters.

A. Scope. There are many tools available to protect special resources including the Smart Growth Initiative, Rural Legacy Program, local comprehensive plans, Program Open Space, and others that work through the private sector and nongovernment organizations. This regulation applies the Tier III Outstanding National Resource Waters (ONRW) designation only where the most stringent protection is necessary and appropriate to protect and maintain existing exceptional resources. Where high quality waters constitute an outstanding national resource, such as waters of national and State parks and wildlife refuges, and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected.

B. Definitions.

(1) Exceptional Biological Resources.

(a) "Exceptional biological resources" means ecologically significant aquatic or wetland habitat that is:

(i) Distinctive because of its unique or very rare combination of natural species and communities; and

(ii) Dependent on maintaining high or pristine water quality or special conditions of existing water quality, such as a bog, which can best be assured protection by no new or increased discharge.

(b) "Exceptional biological resources" includes, if appropriate:

(i) Wholly aquatic threatened or endangered species as defined in Natural Resources Article, §10-2A-01, Annotated Code of Maryland;

(ii) Wholly aquatic species in need of conservation identified in COMAR 08.03.08.09; or

(iii) Wetlands of special concern as defined in COMAR 26.23.06.

(2) "Protected Area" means a permanently protected area such as:

(a) Wildlife refuges or similar habitat protection areas which include but are not limited to wildlife management areas, national parks, State parks, and management areas;

(b) Areas under permanent conservation easement or rural legacy status as determined in consultation with the Rural Legacy Board, Natural Resources Article, §5-9A-03, Annotated Code of Maryland, or easement holder to assure that the location meets the intent and needs of the ONRW designation as determined by the Department of the Environment; or

(c) Areas under some other demonstrated protection, by which the Department may be assured that there will be no changes in land use which could result in nonpoint source runoff posing a direct or indirect threat to the biological values proposed in the nomination.

C. Eligible Nominations.

(1) Required Components. The nominating group or individual shall provide:

(a) Evidence of the presence of exceptional biological resources or exceptional recreational resources dependent on such biological resources;

(b) Scientific information and analysis concerning existing water quality in the body of water, including a demonstration that the water quality is typical of the nominated body of water;

(c) Specific boundaries of the nominated waters and upstream watershed, and a statement whether the nominated body of water and upstream watershed are fully within a protected area except as provided in §F of this regulation; and

(d) Demonstration that an attempt has been made to notify all impacted riparian landowners of the nomination by delivering or mailing notice of proposed nomination to the riparian landowner.

(2) A mailed notice shall request "Restricted Delivery" and show to whom it was delivered and the date and address of delivery.

(3) Additional Information That May Be Required. The Department may require the nominee to submit an economic analysis to address community economic and social concerns.

(4) Assessment. Before proposing the ONRW designation for a body of water, the Department will analyze the information in the nomination package for completeness and confirmation that the body of water achieves and meets the conditions of the ONRW designation.

D. Requirements for an ONRW.

(1) The area nominated for ONRW designation shall be an exceptional biological resource or exceptional recreational resource dependent on exceptional biological resources.

(2) The exceptional biological resource shall be dependent on maintaining high or pristine water quality or special conditions of existing water quality, such as a bog, which can best be assured protection by no new or increased discharge.

(3) To be designated an Outstanding National Resource Water, the area shall be wholly within a permanently protected area.

(4) If the area nominated for ONRW designation has high water quality but does not have exceptional biological resources, it will be protected against degradation under Regulation .04 of this chapter.

E. Protection for Upstream Areas that Feed the ONRW Water Body. In determining whether to designate a body of water as ONRW, the Department may consider whether the watershed upstream of the proposed ONRW area has protections in place that are consistent with the maintenance and protection of biological resources in the ONRW segment. These protections can include, but are not limited to:

(1) A county comprehensive plan or other plan that designates the upstream watershed as a "no growth area"; or

(2) An easement or other legal instrument that protects and maintains the existing land use.

F. Endangered Species. If a nomination is based on a federally threatened or endangered wholly aquatic species, the Department may, but is not required to, designate a water body as an ONRW without requiring protected status. Although the presence of an endangered species may be an indication of a special biological resource, the primary protection for endangered species is provided by the Maryland Nongame and Endangered Species Conservation Act, Natural Resources Article, Title 10, Subtitle 2A, Annotated Code of Maryland,

and the Federal Endangered Species Act. If an ONRW is approved for a body of water that is not in a protected status, any regulated activities in the watershed which would adversely impact the aquatic threatened or endangered species population, or impair the habitat required by the species, will require the maximum practical application of best management practices and implementation of antidegradation policies by the Department. The implementation requirements set forth in §I of this regulation also apply.

G. Designation of an Area as an ONRW.

(1) The Department may designate an area as an ONRW if:

(a) All provisions of the Administrative Procedure Act, State Government Article, Title 10, Subtitle 1, Annotated Code of Maryland, have been met;

(b) The application is complete and all requirements have been met; and

(c) Written permission for the designation has been received from the landowner or landowners within the proposed area for ONRW.

(2) Notice to property owners shall be based on property and tax records in the affected jurisdictions.

H. Public Involvement. The Department shall provide public notice and opportunity for a public informational hearing on the proposed designation of an ONRW before that designation is made. Local jurisdictions shall have 60 days after notification of the nomination to comment on the consistency of the nomination with the locality's comprehensive plan.

I. Implementation.

(1) A wastewater or industrial discharge NPDES permit that would allow a new discharge or an increase in an individual discharge may be issued within an ONRW only if there is mitigation or offsets elsewhere in the ONRW segment that result in no net increase in any substance which might impact or impair the ONRW values for which the body of water was nominated.

(2) A water quality certification may permit an impact only if:

(a) The water quality necessary to maintain and protect the exceptional biological resource is maintained; and

(b) There is mitigation or restoration elsewhere in the ONRW water segment.

(3) Sources of pollution may be allowed by the Department for temporary degradation if, after a minimal period of time (weeks to months), the waters are returned or restored to conditions equal to or better than those existing just before the temporary source of pollution.

(4) After a public informational hearing, the Secretary may make exceptions to §I(1), (2), and (3) of this regulation to protect critical public health and safety concerns.

.05 Surface Water Mixing Zones.

A. General.

- (1) Effluents may be mixed with surface waters in the mixing zone.
- (2) Effluents may not be treated in the mixing zone.
- (3) Lethality to passing organisms may not occur in any mixing zone.
- (4) Surface waters outside the mixing zones shall meet the water quality criteria for that particular body of water.
- (5) Mixing zones may be designated by the Department provided that the following requirements are met outside the mixing zones:
 - (a) There shall be no interference with biological communities or populations of indigenous species to a degree which is damaging to the aquatic life or ecosystem;
 - (b) There shall be no diminishing of other legitimate beneficial uses;
 - (c) Mixing zones may not form barriers to the migratory routes of aquatic life;
 - (d) Mixing zones shall be designated and located to protect surface waters and shallow water shoreline areas;
 - (e) The general water quality criteria set out in Regulation .03B(1)—(3) of this chapter apply within the mixing zones.
- (6) Complete mixing within the mixing zone shall be assumed for toxic substance discharges to streams, rivers, and estuaries unless site-specific information indicates that another mixing pattern is more appropriate.
- (7) Stream flows other than the design flow values set forth in §§B—E of this regulation may be used, at the Department's discretion, on a case-by-case basis for mixing zones associated with noncontinuous discharges.
- (8) Toxic pollutants shall be treated as conservative substances when calculating instream waste concentrations. The assumption of conservatism may be waived based on pollutant-specific and site-specific information.
- (9) Unless a later time is stipulated by the Department, the discharger shall submit to the Department, at the time of permit application, the mixing zone technique preferred for each of its discharges, and actual mixing zone calculations together with supporting documentation.
- (10) A mixing zone may not cause a significant human health risk, considering likely pathways of human exposure.
- (11) Except when the applicant can demonstrate to the satisfaction of the Department that adverse aquatic life or human health effect does not occur, overlapping mixing zones are not permitted. Demonstration may include chemical monitoring, ambient toxicity testing, or examination of benthic communities or fish tissue.
- (12) A mixing zone may not be granted in water body segments with documented occurrences of any endangered or threatened species listed under §4 of the federal Endangered Species Act, if that discharge would likely have an adverse effect on those species.

B. Mixing Zones for Conventional Pollutants. The following requirements apply to the calculation of the regulatory mixing zones for conventional pollutants as identified in the Federal Act:

(1) Except for thermal mixing zones established in accordance with COMAR 26.08.03.03—.05 and toxic substance mixing zones established in accordance with §§C—E of this regulation, any mixing zone may not exceed the following maximum limits:

(a) In freshwater streams and rivers, a mixing zone width may not exceed 1/3 of the width of the surface water body;

(b) In lakes, the combined area of all mixing zones may not exceed 10 percent of the lake surface area; and

(c) In estuarine areas, the maximum cross-sectional area of the mixing zone may not exceed 10 percent of the cross-sectional area of the receiving water body; and

(2) The flows used shall be:

(a) For freshwater streams and rivers, the design stream flow; and

(b) For estuaries and the open ocean, determined from:

(i) Specific data, when available, for the mean water level and average tidal velocity and, where appropriate, the design stream flow,

(ii) Specific data on waste dispersion or dilution, when available for a specific discharge, or

(iii) Dispersion or dilution studies required at the Department's discretion.

C. Application of Toxic Substance Acute Criteria for the Protection of Aquatic Life.

(1) In intermittent streams, the acute criterion shall be applied at the end of the discharge pipe.

(2) In other water bodies, achievement of the acute criterion to protect aquatic life shall be provided:

(a) Within a very short distance from the outfall using:

(i) A high velocity discharge with an initial velocity of 3 meters per second or more, and

(ii) A mixing zone limited to 50 times the discharge length scale in any direction, where the discharge length scale is defined as the square root of the cross-sectional area of any discharge outlet;

(b) Without a high velocity discharge, within a short distance from the outfall using the most restrictive of the following conditions:

(i) Meeting the acute toxicity criterion within 10 percent of the distance from the edge of the outfall structure in any direction to the edge of the mixing zone used for application of toxic substance chronic criteria,

(ii) Meeting the acute toxicity criterion within a distance of 50 times the discharge length scale in any direction, when the discharge length is defined as the square root of the cross-sectional area of any discharge outlet, or

(iii) Meeting the acute toxicity criterion within a distance of five times the local water depth in any horizontal direction from the discharge outlet, where appropriate; or

(c) By demonstration or calculation that a drifting organism may not be exposed to a 1-hour average concentration exceeding the acute aquatic life criterion.

(3) For the application of the acute criteria, any mixing zone may not exceed the following maximum limits:

(a) In freshwater streams and rivers, a width equal to $\frac{1}{3}$ the width of the surface water body;

(b) In lakes, for all discharges combined, 5 percent of the lake surface area; and

(c) In estuarine areas, a cross-sectional area equal to 5 percent of the cross-sectional area of the receiving water body.

(4) The flows used shall be:

(a) For freshwater streams and rivers, the design stream flow; and

(b) For estuaries and the open ocean, determined from:

(i) Specific data, when available, for the mean low water and minimum daily average 1-hour tidal velocity and, when appropriate, the design stream flow,

(ii) Specific data on waste dispersion or dilution, when available for a specific discharge, or

(iii) Dispersion or dilution studies required at the Department's discretion.

D. Application of Toxic Substance Chronic Criteria for the Protection of Aquatic Life.

(1) Any mixing zone may not exceed the following:

(a) In freshwater streams and rivers, a mixing zone width may not exceed $\frac{1}{3}$ of the width of the surface water body;

(b) In lakes, the combined area of all mixing zones may not exceed 10 percent of the lake surface area; and

(c) In estuarine areas, the maximum cross-sectional area of the mixing zone may not exceed 10 percent of the cross-sectional area of the receiving water body.

(2) The flows used shall be:

(a) For freshwater streams and rivers, the 30Q5 value; and

(b) For estuaries and the open ocean, determined from:

(i) Specific data, when available, for the mean water level and average tidal velocity and, when appropriate, the 30Q5 stream flow,

(ii) Specific data on waste dispersion or dilution, when available for a specific discharge, or

(iii) Dispersion or dilution studies required at the Department's discretion.

E. Application of Toxic Substance Criteria for the Protection of Human Health. The flow used to determine impacts to human health shall be the mean annual flow value.

.05-1 Intermittent Streams.

A. New wastewater discharges to intermittent streams are not permitted after the effective date of this regulation except to resolve existing on-site sewage disposal failures when other alternatives are not available.

B. Effluent limitations for discharge to intermittent streams may not be less stringent than:

- (1) The minimum national effluent guidelines established under the Federal Act;
 - (2) Those levels necessary to maintain the water quality standards of the intermittent stream and of downstream segments;
 - (3) Those levels necessary to protect the biological community of the intermittent stream;
- or
- (4) Those levels necessary to protect public health.

.06 Review and Revision.

A. Procedure. Under State law and §303(c) of the Federal Act, the Department shall review and revise its water quality standards as appropriate. Changes shall be transmitted to the EPA.

B. Hearing Transcripts. Transcripts of public hearings on proposed standards revisions shall be available for public inspection in the main office of the Department. Transcripts shall be furnished to the EPA upon request.

.07 Surface Water Use Designation.

A. All surface waters of this State shall be protected for water contact recreation, fishing, and protection of aquatic life and wildlife.

B. For interstate waters, these classifications apply only to those waters within this State.

C. A stream segment is a distinct portion of a sub-basin.

D. If the stream segment limits are specified as beginning at a specific point, streams terminating downstream of this point are not included in the same segment. For example, "Deer Creek and all tributaries above Eden Mill Dam" does not include Little Deer Creek.

.08 Stream Segment Designations and Existing Uses.

A. General.

(1) All geographic coordinates provided within this regulation are expressed in decimal degrees latitude and longitude using the North American Datum of 1983. In this regulation, Maryland's waters are organized by sub-basin. For most Class I, I-P, III, III-P, IV, or IV-P waters, the limits indicate the most downstream boundary point or line for the segment. In some cases, an upstream point and a downstream point are provided to describe those uses that may apply only to a limited segment of a water body. In tidal areas, the segments are defined by polygons defined by three or more points as numbered and expressed in narrative format in column four and defined by latitude and longitude point locations in columns two and three. Any waterbody not specifically listed in the table is a Class I water.

(2) Tidal Segmentation Rationale. Water quality standards for the Chesapeake Bay and its tidal tributaries will be assessed on a "Bay Segment" scale. The segmentation is based on decisions made by the Chesapeake Bay Program in 1998 and 2003, and documented in Chesapeake Bay Program Analytical Segmentation Scheme Revisions, Decisions, and Rationales: 1983-2003 (EPA 903-R-04-008) as adjusted by the Chesapeake Bay Program after discussions with the affected State jurisdictions.

(3) Tidal Segment Boundaries. When using latitude and longitude to delineate Chesapeake Bay tidal segments, the limits are narrative descriptions that delineate the base points of reference. Chesapeake Bay tidal segments generally follow the shoreline contour at mean low water, and include all major bays, creeks, and branches present within the narrative limits of a given segment. The origin of latitudes and longitudes used for the Chesapeake Bay and its tidal tributaries is NAD83.

(4) Application of Chesapeake Bay Segmentation Scheme. The tidal boundaries set forth in this regulation are defined for water quality standards purposes within the Department only, and are not applicable to other agency regulations identified for other purposes.

(5) No Grow Zones. Submerged Aquatic Vegetation (SAV) "No-Grow" Zones (NGZ) are present in some shallow water designated use segments. The SAV "No Grow Zones" are identified in Technical Support Document for Identification of Chesapeake Bay Designated Uses and Attainability-2004 Addendum (EPA 903-R-04-006), Figures V-1 to V-12, which is incorporated by reference. The no grow zones shall be excluded from the assessment of the shallow water designated use.

(6) Existing Uses. Several of the sub-basins in this regulation contain stream segments that support existing uses that require different water quality than the designated use. These existing uses have been determined in accordance with Regulation .04-1 of this chapter. The existing uses for these stream segments are described both in terms of the existing uses supported (e.g., naturalized reproducing brown trout population) and the water quality currently known to sustain them. For determining effluent limits, closure periods, and other regulatory protection measures, these existing uses and the water quality necessary to maintain them must be protected consistent with Regulation .04-1 of this chapter. These existing uses are maintained and can be accessed on the Department's website.

B. Sub-Basin 02-12-02: Lower Susquehanna River Area.

Designated Use Class and Waterbody	Latitude	Longitude	Limits
(1) Class I-P:			
(a) Susquehanna River	39.608971	-76.143379	From head of tide at
	39.608994	-76.121094	

			Spencer Island upstream to MD/PA line
(b) All tributaries to the Susquehanna River except those designated below as Class III-P or Class IV-P			This includes all tributaries to the Susquehanna River including those that drain to the tidal portion of the Susquehanna River
(2) Class II:			
(a) Northern Chesapeake Bay (CB1TF2): Includes the Upper Bay mainstem from the confluence with CB1TF1 and Northeast River (NORTF) to the mouth of the Susquehanna River.	39.475132	-76.097580	(1) West side of Spesutie Narrows bridge
Designated Uses Present in Segment:	39.476006	-76.094421	(2) East side of Spesutie Narrows bridge
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	39.475323	-76.072807	(3) Locust Pt. on Spesutie Island
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	39.449471	-76.010475	(4) Turkey Pt., 0.1 miles WSW of lighthouse
Application Depth: 2.0 meters, NGZ present	39.529629	-75.979271	(5) Red Pt.
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive	39.540794	-76.002899	(6) East side of Carpenter Pt.
	39.540694	-76.084635	(7) Concord Point
	39.546806	-76.065148	(8) Perry Point

(b) Northern Chesapeake Bay (CB1TF1): Upper Bay mainstem to confluence with CB1TF2, Elk River (ELKOH),and CB2OH.	39.420143	-76.123344	(1) 1,000 feet SW of Cherry Tree Pt., APG
Designated Uses Present in Segment:	39.401688	-76.035194	(2) North of Chesapeake Haven, Grove Neck
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	39.429420	-75.997681	(3) 1,300 feet SW of Wroth Pt.
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	39.449200	-76.007698	(4) Turkey Pt.
Application Depth: 1meters, NGZ present	39.449471	-76.010475	(5) Turkey Pt., 0.1miles WSW of lighthouse
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive	39.475323	-76.072807	(6) Locust Pt. on Spesutie Island
	39.476006	-76.094421	(7) East side of Spesutie Narrows bridge
	39.475132	-76.097580	(8) West side of Spesutie Narrows bridge
(3) Class II-P: Northern Chesapeake Bay (CB1TF2): That portion of the Susquehanna River inclusive from the head of tide downstream to the mouth of the Susquehanna River is Class II-P.	39.608971	-76.143379	(1) Just south of Rock Run on western shore
	39.609001	-76.135147	(2) West side Spencer Island
	39.608959	-76.132683	(3) East side Spencer Island
	39.608994	-76.121094	(4) Port Deposit

	39.540694	-76.084635	(5) Concord Point
	39.546806	-76.065148	(6) Perry Point
(4) Class III: None			
(5) Class III-P:			
(a) Deer Creek and all tributaries	39.674848	-76.452907	Upstream of Eden Mill Dam
(b) Basin Run and all tributaries	39.661881	-76.147460	
(c) Kellogg Branch and all tributaries	39.632161	-76.410853	
(d) North Stirrup Run and all tributaries	39.614847	-76.401356	
(e) South Stirrup Run and all tributaries	39.614807	-76.401332	
(f) Deep Run and all tributaries	39.691746	-76.259980	
(g) Gladden Branch and all tributaries	39.638320	-76.411963	
(h) Rock Hollow Branch and all tributaries	39.652505	-76.437817	
(i) Love Run and all tributaries	39.690233	-76.126986	
(j) Stone Run and all tributaries	39.701802	-76.110017	
(k) Wet Stone Branch and all tributaries	39.647146	-76.431712	
(l) Unnamed tributary to Deer Creek and all tributaries to this unnamed tributary	39.637940	-76.424561	Near Rock Ridge Road
(m) Little Deer Creek and all tributaries	39.660788	-76.439732	
(n) Elbow Branch and all tributaries	39.618468	-76.169240	
(o) Unnamed tributary to Broad Creek and all tributaries	39.689695	-76.237823	Upstream of confluence with another unnamed tributary
(p) Happy Valley Branch and all tributaries	39.602124	-76.094247	Upstream of Route 222 Bainbridge Road
(q) Unnamed tributary to the Susquehanna River and all tributaries	39.579619	-76.087854	
(r) Rock Run and all tributaries (Cecil County)	39.613544	-76.126972	Upstream of the mouth

(s) Unnamed tributary to Deer Creek and all tributaries	39.643704	-76.41237	Runs parallel to Rocks Road
(t) Unnamed tributary to Falling Branch and all tributaries	39.683601	-76.439217	Flows through Rocks State Park near Falling Branch Road
(u) Unnamed tributary to Conowingo Reservoir and all tributaries	39.717647	-76.224782	Flows from Eckman Lane to Susquehanna River
(6) Class IV: None.			
(7) Class IV-P:			
(a) Deer Creek and all tributaries	39.613418	-76.148934	From mouth to Eden Mill Dam
(b) Octoraro Creek	39.656256	-76.158615	Mainstem only

C. Sub-Basin 02-13-01: Coastal Area.

Designated Use Class and Waterbody	Latitude	Longitude	Limits
(1) Class I-P: None.			
(2) Class II:			
	(a) All tidal waters within this sub-basin.		
	(b) The Shellfish Harvest designated use applies to all portions of this sub-basin except:		
(i) Bishopville Prong and tributaries	38.414613	-75.178402	Upstream of confluence with St. Martins River
	38.412382	-75.179411	
(ii) Shingle Landing Prong and its tributaries	38.408423	-75.173525	Upstream of confluence with St. Martins River at Piney Island
	38.405700	-75.175124	
(iii) Herring Creek and its tributaries	38.339036	-75.129811	Upstream of Rt. 50
(iv) Ocean City Harbor	38.327723	-75.099180	Upstream of entrance to West Ocean City Harbor
	38.326950	-75.100301	
(3) Class III: None.			
(4) Class III-P: None.			

(5) Class IV: None.
(6) Class IV-P: None.

D. Sub-Basin 02-13-02: Pocomoke River Area.

Designated Use Class and Waterbody	Latitude	Longitude	Limits
(1) Class I-P: None.			
(2) Class II:			
(a) Upper Pocomoke River Tidal Fresh (POCTF):	38.062958	-75.617470	(1) West of Unionville, Somerset Co. side
Designated Uses Present in Segment:	38.062840	-75.616302	(2) West of Unionville, Worcester Co. side
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	38.183201	-75.391991	(3) Snow Hill, 1,900 feet upstream of Rt. 12
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive			
Application Depth: .05 meters, NGZ Present			
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			
(b) Middle Pocomoke River Oligohaline (POCOH):	37.966858	-75.674603	(1) On mainland 4,000 feet NW of Fair Island
Designated Uses Present in Segment:	37.951850	-75.676225	(2) MD/VA State Line-Pocomoke Sound
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	37.949924	-75.667353	(3) MD/VA State Line-Pocomoke Sound
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	37.945125	-75.656153	(4) MD/VA State Line south of Williams Pt.
Application Depth: 0.5 meters, NGZ Present	37.946728	-75.648248	(5) MD/VA State Line-Pocomoke Sound
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive	37.966423	-75.648553	(6) MD/VA State Line-700' upstream of mouth
	37.994347	-75.624314	(7) Intersection of Somerset Co. and

			Worcester Co., MD, and Accomack Co., VA
	37.994449	-75.623122	(8) Worcester Co., MD-Accomack Co., VA boundary
	38.062840	-75.616302	(9) West of Unionville, Worcester Co. side
	38.062958	-75.617470	(10) West of Unionville, Somerset Co. side
(c) Lower Pocomoke River Mesohaline (POCMH):	37.924927	-75.848007	(1) Eastward Pt., on eastern side of Broad Creek
Designated Uses Present in Segment:	37.911789	-75.837732	(2) MD/VA State Line, 1.15 miles south of Cow Gap Island
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	37.912169	-75.801148	(3) MD/VA State Line-Pocomoke Sound
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	37.941226	-75.761753	(4) MD/VA State Line-Pocomoke Sound
Application Depth: 1.0 meters, NGZ Present	37.954523	-75.704753	(5) MD/VA State Line-Pocomoke Sound
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive	37.955237	-75.691653	(6) MD/VA State Line-Pocomoke Sound
Shellfish Harvest Use: See §D(2)(j) of this regulation	37.951850	-75.676225	(7) MD/VA State Line-Pocomoke Sound
	37.966858	-75.674603	(8) On mainland 4,000 feet NW of Fair Island
(d) Manokin River Mesohaline (MANMH):	38.131565	-75.948860	(1) Wenona on Deal Island, north of channel
Designated Uses Present in Segment:	38.125946	-75.941216	(2) Eastern point on north side of Little Deal Island
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	38.122917	-75.937126	(3) Eastern side of Little Deal Island
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	38.078552	-75.877586	(4) Hazard Island, 1,200 feet NE of tip of Hazard Pt.

Application Depth: 2.0 meters	38.075663	-75.871155	(5) Gut between Hazard Cove and Mine Creek, N side
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive	38.075314	-75.870750	(6) Gut between Hazard Cove and Mine Creek, S side
Shellfish Harvest: See §D(2)(j) of this regulation	38.069160	-75.855591	(7) West part Hazard Island at Shirtpond Cove
	38.069599	-75.853897	(8) East part Hazard Island at Shirtpond Cove
	38.073784	-75.848656	(9) W side of gut heading N from Flatland Cove
	38.074146	-75.848228	(10) E side of gut heading N from Flatland Cove
	38.133823	-75.827339	(11) Cormal Pt.
	38.142979	-75.821144	(12) Champ Pt.
	38.160442	-75.929558	(13) Upper Thorofare at the mouth of Moores Gut
	38.160080	-75.932388	(14) Upper Thorofare, Deal Island side
(e) Manokin River Mesohaline (MANMH2):	38.142979	-75.821144	(1) Champ Pt.
Designated Uses Present in Segment:	38.133823	-75.827339	(2) Cormal Pt.
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	38.172668	-75.732979	(3) Manokin River confluence with Hall Branch
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive			
Application Depth: 0.5 meters			
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			
Shellfish Harvest: See §D(2)(j) of this regulation			
(f) Big Annemessex River Mesohaline (BIGMH1):	38.058910	-75.868744	(1) South shore of Pat Island

Designated Uses Present in Segment:	38.036049	-75.868935	(2) 700 feet East of Flatcap Pt., Janes Island
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	38.020973	-75.856819	(3) North side of gut SW of Acre Creek
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	38.020733	-75.856712	(4) South side of gut SW of Acre Creek
Application Depth: 2.0 meters	38.016033	-75.846458	(5) West side of Daugherty Creek Canal
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive	38.015781	-75.845947	(6) East side of Daugherty Creek Canal
Shellfish Harvest: See §D(2)(j) of this regulation	38.078850	-75.782249	(7) Persimmon Pt.
	38.074585	-75.787170	(8) Charles Pt.
	38.074146	-75.848228	(9) East side of gut heading N from Flatland Cove
	38.073784	-75.848656	(10) W side of gut heading N from Flatland Cove
	38.069599	-75.853897	(11) East part Hazard Island at Shirtpond Cove
	38.069160	-75.855591	(12) West part Hazard Island at Shirtpond Cove
	38.065315	-75.866608	(13) Hazard Island, across gut from Pat Island
	38.064907	-75.866974	(14) NE Pat Island, across gut from Hazard Island
(g) Big Annemessex River Mesohaline (BIGMH2):	38.074585	-75.787170	(1) Charles Pt.
Designated Uses Present in Segment:	38.078850	-75.782249	(2) Persimmon Pt.
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	38.087246	-75.733032	(3) 1,000 feet below confluence with Annemessex Creek
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive			

Application Depth: 0.5 meters			
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			
Shellfish Harvest: See §D(2)(j) of this regulation			
(h) Tangier Sound Mesohaline (TANMH1):	37.941404	-76.083908	(1) MD/VA boundary, 2.25 miles west of Smith Gut Pt.
Designated Uses Present in Segment:	37.953599	-76.052055	(2) MD/VA boundary, 1,450' west of Hog Neck
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	37.953392	-75.993331	(3) MD/VA boundary, 400' east of Horse Hammock
Application Depth: 2.0 meters, NGZ Present	37.946050	-75.943628	(4) MD/VA boundary, between Smith and Cedar Is
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive	37.906718	-75.952630	(5) MD/VA boundary, 2.75 miles west of Clump Island
Shellfish Harvest: See §D(2)(j) of this regulation	37.911304	-75.883558	(6) MD/VA boundary, 300' north of Green Harbor I.
	37.911789	-75.837732	(7) MD/VA boundary, 1.15 miles south of Cow Gap Island
	37.924927	-75.848007	(8) Eastward Pt., on eastern side of Broad Creek
	38.015781	-75.845947	(9) East side of Daugherty Creek Canal
	38.016033	-75.846458	(10) West side of Daugherty Creek Canal
	38.020733	-75.856712	(11) South side of gut SW of Acre Creek
	38.020973	-75.856819	(12) North side of gut SW of Acre Creek
	38.036049	-75.868935	(13) 700 feet east of Flatcap Pt., Janes Island

	38.058910	-75.868744	(14) South shore of Pat Island
	38.064907	-75.866974	(15) NE Pat Island, across gut from Hazard Island
	38.065315	-75.866608	(16) Hazard Island, across gut from Pat Island
	38.075314	-75.870750	(17) Gut between Hazard Cove and Mine Cr., south side
	38.075665	-75.871155	(18) Gut between Hazard Cove and Mine Cr., north side
	38.078552	-75.877586	(19) Hazard Island, 1,200 feet NE of tip of Hazard Pt.
	38.122917	-75.937126	(20) Eastern side of Little Deal Island
	38.125946	-75.941216	(21) Eastern point on north side of Little Deal Island
	38.131565	-75.948860	(22) Wenona on Deal Island, north of channel
	38.136566	-75.959633	(23) Twiggs Pt.
	38.232738	-75.972618	(24) Southern-most point of Clay Island
	38.216042	-76.032051	(25) Bishops Head Pt.
	38.215809	-76.032349	(26) Bishops Head Pt.
	38.231964	-76.134285	(27) Lower Hooper I. between Nancys and Creek Pts.
	38.231445	-76.135773	(28) Lower Hooper I. between Nancys and Creek Pts.
(i) Tangier Sound Mesohaline (TANMH2):	38.232738	-75.972618	(1) Southern-most point of Clay Island
Designated Uses Present in Segment:	38.136566	-75.959633	(2) Twiggs Pt.
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	38.160080	-75.932388	(3) Upper Thorofare, Deal Island side

Application Depth: 0.5 meters, NGZ Present	38.160442	-75.929558	(4) Upper Thorofare at the mouth of Moores Gut
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive	38.202679	-75.890579	(5) 1,100 feet west of the tip of Long Pt.
Shellfish Harvest: See §D(2)(j) of this regulation	38.227970	-75.893486	(6) Nanticoke Pt. (Stump Point Marsh)
	38.243217	-75.906105	(7) West of Waterview, north of Jones Creek
	38.244740	-75.941284	(8) Sandy Island, NE of Frog Pt.
(j) Shellfish Harvest Subcategory. All estuarine portions of tributaries except:			
(i) Manokin River and tributaries	38.170831	-75.729079	Upstream of confluence of tributaries Manokin River and Kings Creek
(ii) Big Annemessex River and tributaries	38.087987	-75.746775	Upstream of River Road
(iii) Jenkins Creek	37.959260	-75.864354	Upstream of mouth
	37.953123	-75.863595	
(iv) Fair Island Canal	37.961004	-75.662631	
	37.963180	-75.655446	
(v) Pocomoke River	37.994532	-75.624223	Upstream of MD/VA line
(3) Class III: None.			
(4) Class III-P: None.			
(5) Class IV: None.			
(6) Class IV-P: None.			

E. Sub-Basin 02-13-03: Nanticoke River Area.

Designated Use Class and Waterbody	Latitude	Longitude	Limits
(1) Class I-P: None.			
(2) Class II:			
(a) Upper Nanticoke River Tidal Fresh (NANTF): from Maryland-Delaware state line to confluence with Plum Creek:	38.538052	-75.745972	(1) 600 feet upstream of Molly Horn Branch
Designated Uses Present in Segment:	38.536259	-75.744843	(2) 375 feet upstream of Plum Creek

Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	38.642723	-75.606522	(3) Seaford, DE just above Middleford Rd.
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive			
Application Depth: 0.5 meters, NGZ Present			
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			
Shellfish Harvest: See §E(2)(f) of this regulation			
(b) Middle Nanticoke River Oligohaline (NANO):	38.387169	-75.859673	(1) 900 feet downstream of Wapremander Creek
Designated Uses Present in Segment:	38.381268	-75.839233	(2) 600 feet upstream of Quantico Creek
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	38.536259	-75.744843	(3) 375 feet upstream of Plum Creek
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	38.538052	-75.745972	(4) 600 feet upstream of Molly Horn Branch
Application Depth: 0.5 meters	38.553452	-75.774071	(5) Marshyhope Cr., 500 feet downstream of Big Indian Cr.
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			
Shellfish Harvest: See §E(2)(f) of this regulation			
(c) Lower Nanticoke River Mesohaline (NANMH):	38.24474	-75.941284	(1) Sandy Island, NE of Frog Pt.
Designated Uses Present in Segment:	38.243217	-75.906105	(2) West of Waterview, North of Jones Creek
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	38.381268	-75.839233	(3) 600 feet upstream of Quantico Creek

Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	38.387169	-75.859673	(4) 900 feet downstream of Wapremander Creek
Application Depth: 0.5 meters			
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			
Shellfish Harvest: See §E(2)(f) of this regulation			
(d) Wicomico River Mesohaline (WICMH):	38.22797	-75.893486	(1) Nanticoke Pt. (Stump Point Marsh)
Designated Uses Present in Segment:	38.202679	-75.890579	(2) 1,100 feet West of the tip of Long Pt.
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	38.361588	-75.583061	(3) Beaverdam Cr., 3,000 feet upstream of Rt. 12
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive			
Application Depth: 0.5 meters, NGZ present			
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			
Shellfish Harvest: See §E(2)(f) of this regulation			
(e) Fishing Bay Mesohaline (FSBMH):	38.216042	-76.032051	(1) Bishops Head Pt.
Designated Uses Present in Segment:	38.232738	-75.972618	(2) Southern-most point of Clay Island
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	38.404148	-76.002716	(3) Transquaking River west of Thorofare Marsh
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	38.404133	-76.029968	(4) Backgarden Pond, SE shore
Application Depth: 0.5 meters			
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			

Shellfish Harvest: See §E(2)(f) of this regulation			
(f) Shellfish Harvest Subcategory. All estuarine portions of tributaries except:			
(i) Blackwater River and tributaries	38.356427	-76.012288	Upstream from mouth
	38.355141	-76.008626	
(ii) Transquaking River and tributaries	38.368143	-76.004863	Upstream from mouth
	38.370119	-75.994901	
(iii) Nanticoke River and tributaries	38.353333	-75.855293	Upstream of line from Runaway Pt. to Long Pt.
	38.359609	-75.863337	
(iv) Wicomico River and tributaries	38.267422	-75.788291	Upstream of ferry crossing at White Haven
(v) Monie Creek	38.230120	-75.819620	Upstream from mouth
	38.229650	-75.823509	
(3) Class III: None.			
(4) Class III-P: None.			
(5) Class IV: None.			
(6) Class IV-P: None.			

F. Sub-Basin 02-13-04: Choptank River Area.

Designated Use Class and Waterbody	Latitude	Longitude	Limits
(1) Class I-P: None.			
(2) Class II:			
(a) Upper Choptank River Tidal Fresh (CHOTF):	38.810635	-75.902985	(1) 1,850 feet downstream from mouth of Tuckahoe Cr.
Designated Uses Present in Segment:	38.808270	-75.900391	(2) 1,000 feet downstream of Gilpin Pt.
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	38.980827	-75.792931	(3) 3,500 feet upstream of Rt. 313 bridge
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive			

Application Depth: 0.5 meters, NGZ present			
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			
Shellfish Harvest: See §F(2)(g) of this regulation			
(b) Middle Choptank River Oligohaline (CHOOH):	38.653545	-75.959129	(1) 1.5 miles downstream of Bow Knee Pt.
Designated Uses Present in Segment:	38.647415	-75.952339	(2) 1.05 miles upstream of Cabin Creek
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	38.808270	-75.900391	(3) 1,000 feet downstream of Gilpin Pt.
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	38.810635	-75.902985	(4) 1850 feet downstream from mouth of Tuckahoe Cr.
Application Depth: 0.5 meters, NGZ present			
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			
Shellfish Harvest: See §F(2)(g) of this regulation			
(c) Lower Choptank River Mesohaline (CHOMH2):	38.649193	-76.153114	(1) 0.9 miles N. of Chlora Pt.
Designated Uses Present in Segment:	38.628571	-76.171051	(2) 400 feet west of Castle Haven Pt.
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	38.647415	-75.952339	(3) 1.05 miles upstream of Cabin Creek
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	38.653545	-75.959129	(4) 1.5 miles downstream of Bow Knee Pt.
Application Depth: 1.0 meters			
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			
Shellfish Harvest: See §F(2)(g) of this regulation			

(d) Mouth of the Choptank River Mesohaline (CHOMH1):	38.672421	-76.340698	(1) 720 feet along shore NNW of Blackwalnut Pt.
Designated Uses Present in Segment:	38.573353	-76.306503	(2) Hills Pt.
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	38.571705	-76.336029	(3) 1.6 miles almost due west of Hills Pt.
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	38.628571	-76.171051	(4) 400 feet west of Castle Haven Pt.
Application Depth: 2.0 meters, NGZ present	38.649193	-76.153114	(5) 0.9 miles N. of Chlora Pt.
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive	38.719967	-76.333054	(6) North side Knapps Narrows, 150 feet west of Rt. 33
Shellfish Harvest: See §F(2)(g) of this regulation	38.719185	-76.334084	(7) South side Knapps Narrows, 275 feet west of Rt. 33
(e) Little Choptank River Mesohaline (LCHMH):	38.571705	-76.336029	(1) 1.6 miles almost due west of Hills Pt.
Designated Uses Present in Segment:	38.231964	-76.306503	(2) Hills Pt.
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	38.527523	-76.333801	(3) East edge of tidal flat N of existing James Island
Application Depth: 2.0 meters	38.526997	-76.333771	(4) 190 feet South of LCHMH Point #3
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive	38.487057	-76.331779	(5) West side of Oyster Cove, Taylors Island
Shellfish Harvest: See §F(2)(g) of this regulation	38.421944	-76.288742	(6) Southern tip of Taylors Island
	38.421051	-76.288589	(7) Meekins Neck, across channel from Point #6
	38.398201	-76.237053	(8) W shore Great Marsh Cr. 1,800 feet above Rt. 335

	38.398605	-76.237030	(9) E shore Great Marsh Cr. 1,800 feet above Rt. 335
(f) Honga River Mesohaline (HNGMH):	38.231964	-76.134285	(1) Lower Hooper I. between Nancys and Creek Pts.
Designated Uses Present in Segment:	38.215809	-76.032349	(2) Bishops Head Pt.
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	38.398605	-76.237030	(3) Great Marsh Creek, north side, 1,900 feet above 335
Application Depth: 2.0 meters	38.398201	-76.237053	(4) Great Marsh Creek, south side, 1,900 feet above 335
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive	38.349953	-76.227982	(5) Drawbridge, southern Meekins Neck
Shellfish Harvest: See §F(2)(g) of this regulation	38.348228	-76.227264	(6) Drawbridge, northern Upper Hooper Island
	38.298965	-76.206718	(7) Ferry Pt.
	38.295982	-76.204597	(8) NW tip of Middle Hooper I. across from Ferry Pt.
	38.248642	-76.154419	(9) Middle Hooper Island, NW end of The Thorofare
	38.248581	-76.153191	(10) Lower Hooper Island, NE end of The Thorofare
(g) Shellfish Harvest Subcategory. All estuarine portions of tributaries except:			
(i) Choptank River and tributaries	38.673807	-75.952263	Upstream of line from Bow Knee Pt. to Wright Wharf
	38.670579	-75.945795	
(ii) Tred Avon River and tributaries	38.767879	-76.095174	Upstream of Easton Pt.
(3) Class III: None.			
(4) Class III-P: None.			

(5) Class IV: None.

(6) Class IV-P: None.

G. Sub-Basin 02-13-05: Chester River Area.

Designated Use Class and Waterbody	Latitude	Longitude	Limits
(1) Class I-P: None.			
(2) Class II:			
(a) Upper Chester River Tidal Fresh (CHSTF):	39.246002	-75.986618	(1) Travilla Wharf
Designated Uses Present in Segment:	39.245350	-75.985878	(2) Marshy point across from Travilla Wharf
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	39.254440	-75.839638	(3) Andover Branch 900 feet above Rt. 313
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive			
Application Depth: 0.5 meters			
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			
Shellfish Harvest: See §G(2)(e) of this regulation			
(b) Middle Chester River Oligohaline (CHSOH):	39.147564	-76.086426	(1) 1,100 feet below Browns Creek
Designated Uses Present in Segment:	39.146572	-76.075684	(2) Northwest Pt., west of Riverview
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	39.245350	-75.985878	(3) Marshy point across from Travilla Wharf
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	39.246002	-75.986618	(4) Travilla Wharf
Application Depth: 0.5 meters			
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			
Shellfish Harvest: See §G(2)(e) of this regulation			

(c) Lower Chester River Mesohaline (CHSMH):	39.029720	-76.242516	(1) Wickes Beach, Eastern Neck Island
Designated Uses Present in Segment:	39.016422	-76.296959	(2) Kent Island, 1,600 feet N of Grollman Rd.
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	38.970539	-76.248413	(3) Rt. 50, west side of Kent Narrows
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	38.970455	-76.246330	(4) Rt. 50, east side of Kent Narrows
Application Depth: 1.0 meters	39.146572	-76.075684	(5) Northwest Pt., west of Riverview
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive	39.147564	-76.086426	(6) 1,100 feet below Browns Creek
Seasonal Deep Water Fish and Shellfish Use: Upper pycnocline to lower pycnocline from June 1 to September 30, inclusive	39.056882	-76.220903	(7) South end of Eastern Neck, east of Route 445 Bridge
Seasonal Deep Channel Refuge Use: Lower pycnocline boundary to bottom from June 1 to September 30, inclusive	39.054563	-76.220229	(8) Northern tip of Eastern Neck Island, east of Route 445 Bridge
Shellfish Harvest: See §G(2)(e) of this regulation			
(d) Eastern Bay Mesohaline (EASMH):	38.836365	-76.369392	(1) Kent Pt.
Designated Uses Present in Segment:	38.752529	-76.340332	(2) 1,500 feet NE of Green Marsh Pt.
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	38.970455	-76.246330	(3) Rt. 50, East side of Kent Narrows
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	38.970539	-76.248413	(4) Rt. 50, West side of Kent Narrows
Application Depth: 2.0 meters, NGZ present			
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			
Seasonal Deep Water Fish and Shellfish Use: Upper pycnocline to			

lower pycnocline from June 1 to September 30, inclusive			
Seasonal Deep Channel Refuge Use: Lower pycnocline boundary to bottom from June 1 to September 30, inclusive			
Shellfish Harvest: See §G(2)(e) of this regulation			
(e) Shellfish Harvest Subcategory. All estuarine portions of tributaries except:			
(i) Chester River and tributaries	39.207513	-76.059490	Upstream of Rt. 213
(ii) Corsica River	39.061396	-76.081813	Upstream of Earl Cove
	39.060344	-76.084071	
(iii) Piney Creek	38.972919	-76.258409	Upstream of Rt. 50
(iv) Winchester Creek	38.972570	-76.201708	Upstream of mouth
	38.973089	-76.203726	
(v) St. Michaels Harbor	38.789955	-76.217917	
	38.786738	-76.216319	
(3) Class III: None.			
(4) Class III-P: None.			
(5) Class IV: None.			
(6) Class IV-P: None.			

H. Sub-Basin 02-13-06: Elk River Area.

Designated Use Class and Waterbody	Latitude	Longitude	Limits
(1) Class I-P:			
(a) Big Elk Creek and all tributaries	39.605547	-75.831007	Upstream of MD Route 213
(b) Northeast Creek and all tributaries	39.594562	-75.947231	Upstream of confluence with Stoney Run
(c) Mill Creek and all tributaries	39.575652	-76.056760	Upstream of U.S. Route 40
(2) Class II:			
(a) Northeast River Tidal Fresh (NORTE):	39.540794	-76.002899	(1) East side of Carpenter Pt.

Designated Uses Present in Segment:	39.529629	-75.979271	(2) Red Pt.
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	39.608879	-75.937988	(3) 750 feet above RR bridge, 1,500 feet below Rt. 40
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive			
Application Depth: 0.5 meters, NGZ present			
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			
Shellfish Harvest: See §H(2)(h) of this regulation			
(b) Chesapeake & Delaware (C&D) Canal Oligohaline (C&DOH):	39.525536	-75.874619	(1) East side of Welch Pt.
Designated Uses Present in Segment:	39.523182	-75.871521	(2) West of where the road north from Randalia ends
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	39.534616	-75.779424	(3) MD/DE State Line-southern shore
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	39.536623	-75.779582	(4) MD/DE State Line-northern shore
Application Depth: 0.5 meters			
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			
Shellfish Harvest: See §H(2)(h) of this regulation			
(c) Bohemia River Oligohaline (BOHOH):	39.486473	-75.923767	(1) Town Pt.
Designated Uses Present in Segment:	39.474773	-75.940498	(2) East of Ford Landing on Veazey Neck
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	39.461319	-75.783554	(3) 600 feet below where Sandy Branch enters

Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive			
Application Depth: 0.5 meters			
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			
Shellfish Harvest: See §H(2)(h) of this regulation			
(d) Elk River Oligohaline (ELKOH1):	39.449200	-76.007698	(1) Turkey Pt.
Designated Uses Present in Segment:	39.429420	-75.997681	(2) 1,300 feet SW of Wroth Pt.
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	39.474773	-75.940498	(3) East of Ford Landing on Veazey Neck
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	39.486473	-75.923767	(4) Town Pt.
Application Depth: 2.0 meters	39.523182	-75.871521	(5) West of where the road north from Randalia ends
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive	39.525536	-75.874619	(6) East side of Welch Pt.
Shellfish Harvest: See §H(2)(h) of this regulation	39.544392	-75.855301	(7) Paddy Biddle Cove
	39.545540	-75.876144	(8) 0.6 miles south of Elkmore
(e) Elk River Oligohaline (ELKOH2):	39.545540	-75.876144	(1) 0.6 miles south of Elkmore
Designated Uses Present in Segment:	39.544392	-75.855301	(2) Paddy Biddle Cove
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	39.607624	-75.822853	(3) Elkton-500 feet below Rt. 7
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive			
Application Depth: 0.5 meters			

Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			
Shellfish Harvest: See §H(2)(h) of this regulation			
(f) Sassafras River Oligohaline (SASOH1):	39.389511	-76.040848	(1) Grove Pt.
Designated Uses Present in Segment:	39.372025	-76.101227	(2) 2,850 feet east of Howells Pt.
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	39.371868	-75.955750	(3) 0.66 miles NW of Freeman Creek
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	39.378330	-75.961472	(4) Cassidy Wharf
Application Depth: 2.0 meters, NGZ present			
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			
Shellfish Harvest: See §H(2)(h) of this regulation			
(g) Sassafras River Oligohaline (SASOH2):	39.378330	-75.961472	(1) Cassidy Wharf
Designated Uses Present in Segment:	39.371868	-75.955750	(2) 0.66 miles NW of Freeman Creek
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	39.376785	-75.806549	(3) 350 feet upstream of Rt. 301
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive			
Application Depth: 0.5 meters			
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			
Shellfish Harvest: See §H(2)(h) of this regulation			
(h) Shellfish Harvest Subcategory. All estuarine portions of tributaries except:			
(i) Elk River and tributaries	39.513611	-75.884711	

	39.522583	-75.891449	Upstream of line from Bull Minnow Pt. to Courthouse Pt.
(ii) Bohemia River and tributaries	39.485853	-75.908481	Upstream of line from Rich Pt. to Battery Pt.
	39.475916	-75.905035	
(iii) Sassafras River and tributaries	39.370325	-75.978743	Upstream of Ordinary Pt.
	39.363975	-75.975207	
(iv) Stillpond Creek and tributaries (Still Pond)	39.332707	-76.135330	Upstream of Kinnaird Pt.
	39.333612	-76.132329	
(v) Worton Creek	39.291457	-76.181995	Upstream of mouth
	39.299038	-76.178130	
(vi) Fairlee Creek	39.269552	-76.210087	Upstream of mouth
	39.279774	-76.200203	
(vii) Northeast River	39.541074	-76.003000	Upstream of mouth
	39.529124	-75.980445	
(3) Class III: Principio Creek and all tributaries	39.572032	-76.031084	
(4) Class III-P:			
Mill Creek	39.585249	-76.052864	Upstream of an unnamed tributary near Reservoir Rd.
(5) Class IV: None.			
(6) Class IV-P: None.			

I. Sub-Basin 02-13-07: Bush River Area.

Designated Use Class and Waterbody	Latitude	Longitude	Limits
(1) Class I-P: Winters Run and all tributaries, including Atkisson Reservoir	39.439084	-76.307513	From Otter Point Creek to upstream boundary of Atkisson Reservoir
(2) Class II:			
(a) Bush River Oligohaline (BSHOH):	39.339172	-76.256592	(1) 800 feet upriver of Lego Pt.
Designated Uses Present in Segment:	39.351715	-76.232986	(2) Mouth of Abbey Creek

Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	39.482510	-76.215805	(3) Church Creek, at the railroad tracks
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive			
Application Depth: 0.5 meters			
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			
Shellfish Harvest: See §I(2)(b) of this regulation			
(b) Shellfish Harvest Subcategory. All estuarine portions of tributaries except:			
(i) Bush River and tributaries	39.412511	-76.254673	Upstream of line from Fairview Pt. to Chillbury Pt.
	39.407534	-76.242382	
(ii) Romney Creek	39.389322	-76.208158	Upstream of Briar Pt.
	39.388825	-76.212396	
(iii) Swan Creek and tributaries	39.486879	-76.114054	Upstream of line from Swan Creek Point and Plumb Point
	39.489244	-76.122327	
(3) Class III: Bynum Run and all tributaries	39.471465	-76.259730	
(4) Class III-P: None.			
(5) Class IV: None.			
(6) Class IV-P: Winters Run and all tributaries	39.484346	-76.343776	Upstream of Atkisson Reservoir

J. Sub-Basin 02-13-08: Gunpowder River Area.

Class: Waters	Latitude	Longitude	Limits
(1) Class I-P: Loch Raven Reservoir.	39.430805	-76.543833	Upstream of Loch Raven Dam
(2) Class II:			
(a) Gunpowder River Oligohaline (GUNOH2):	39.358330	-76.345024	(1) Cunningham Cove, mouth of unnamed creek
Designated Uses Present in Segment:	39.356564	-76.322929	(2) Maxwell Pt.

Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	39.412685	-76.400780	(3) Gunpowder Falls, 1,500 feet below Rt. 7
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive			
Application Depth: 0.5 meters			
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			
Shellfish Harvest: See §J(2)(d) of this regulation			
(b) Mouth of Gunpowder River Oligohaline (GUNOH1):	39.316414	-76.331039	(1) 170 feet S of east side of bridge to Carroll Island
Designated Uses Present in Segment:	39.312862	-76.321449	(2) Carroll Pt.
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	39.312767	-76.321190	(3) Carroll Pt.
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	39.303204	-76.296249	(4) Rickett Pt. at end of Ricketts Pt. Rd.
Application Depth: 2.0 meters	39.356564	-76.322929	(5) Maxwell Pt.
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive	39.358330	-76.345024	(6) Cunninghill Cove, mouth of unnamed creek
Shellfish Harvest: See §J(2)(d) of this regulation	39.326569	-76.361801	(7) 170 feet South of West side of bridge to Carroll Island
	39.326477	-76.361130	(8) 170 feet S of east side of bridge to Carroll Island
(c) Middle River Oligohaline (MIDOH):	39.286442	-76.384102	(1) North shore of Holly Beach
Designated Uses Present in Segment:	39.309422	-76.342964	(2) Carroll Island, between Weir Pt. and Hawthorn Cove
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	39.326477	-76.361130	(3) 170 feet S of east side of bridge to Carroll Island

Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	39.326569	-76.361801	(4) 170 feet South of west side of bridge to Carroll Island
Application Depth: 2.0 meters	39.329792	-76.446922	(5) 150 feet downstream of RR tracks, above Eastern Blvd
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			
Shellfish Harvest: See §J(2)(d) of this regulation			
(d) Shellfish Harvest Subcategory. All estuarine portions of tributaries except:			
(i) Gunpowder River and all tributaries	39.373213	-76.338011	Upstream of line from Oliver Pt. to Maxwell Pt.
	39.357091	-76.322603	
(ii) Middle River	39.303819	-76.394089	Upstream of line from Log Pt. to Turkey Pt.
	39.294278	-76.398539	
(3) Class III:			
(a) Little Gunpowder Falls and all tributaries	39.421494	-76.373807	Above B&O railroad bridge 3/4 mile south of Rt. 7 (Old Philadelphia Road)
(b) Long Green Run and all tributaries	39.436259	-76.463872	
(c) Sweathouse Branch and all tributaries	39.435819	-76.461519	
(d) Cowen Run and all tributaries	39.430809	-76.522574	
(4) Class III-P: Gunpowder Falls and all tributaries upstream from Loch Raven Reservoir			
(5) Class IV:			
(a) Whitemarsh Run and all tributaries	39.381461	-76.419291	
(b) Big Gunpowder Falls	39.425580	-76.529257	U.S. Route 95 upstream to Cromwell Bridge Road mainstem only

	39.415885	-76.409348	
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(6) Class IV-P: None.

K. Sub-Basin 02-13-09: Patapsco River Area.

Designated Use Class and Waterbody	Latitude	Longitude	Limits
(1) Class I-P:			
(a) Liberty Reservoir	39.376821	-76.890395	Upstream of Liberty Dam
(b) All tributaries to West Branch Patapsco River except those designated below as Class III-P or Class IV-P			
(c) All tributaries to Liberty Reservoir except those designated below as Class III-P or Class IV-P			Upstream of Liberty Reservoir
(2) Class II: Tidal Waters:			
(a) Back River Oligohaline (BACOH):	39.231178	-76.408920	(1) Swan Pt., in line with 11th St.
Designated Uses Present in Segment:	39.248951	-76.410530	(2) Rocky Pt. Park, between Claybank and Cedar Pts.
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	39.307873	-76.520416	(3) Moores Run, 1.25 miles above I-695
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive			
Application Depth: 0.5 meters			
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			
Shellfish Harvest: None			
(b) Patapsco River Mesohaline (PATMH):	39.131855	-76.435081	(1) Bodkin Neck between Cedar and Bodkin Pts.
Designated Uses Present in Segment:	39.195377	-76.444511	(2) North Pt. south of Fort Howard
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	39.275375	-76.654480	(3) Gwynns Falls, upstream end of Carroll Park

Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive			
Application Depth: 1.0 meters, NGZ present			
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			
Seasonal Deep Water Fish and Shellfish Use: Upper pycnocline to lower pycnocline from June 1 to September 30, inclusive			
Shellfish Harvest: See §K(2)(c) of this regulation			
Seasonal Deep Channel Refuge. Lower pycnocline boundary to bottom from June 1 to September 30, inclusive	39.183780	- 76.403830	(4) Patapsco River mainstem: Brewerton Channel, eastern extension at line connecting North Pt. and Bodkin Pt.
	39.219900	- 76.525780	(5) Patapsco River mainstem: Brewerton Channel at Key Bridge (I-695)
	39.219900	- 76.525780	(6) Patapsco River mainstem: Fort McHenry Channel, at Key Bridge (I-695)
	39.261940	- 76.574550	(7) Patapsco River mainstem: Fort McHenry Channel at Rt. 895 Tunnel
	39.224300	- 76.529080	(8) Curtis Bay Channel at intersection with Fort McHenry Channel
	39.222190	- 76.575130	(9) Curtis Bay Channel at intersection with Curtis Creek
	39.187780	- 76.577670	(10) Curtis Bay Channel at channel terminus

	39.254170	-76.571760	(11) Middle Branch: Ferry Bar Channel at intersection with Fort McHenry Channel
	39.253060	-76.607630	(12) Middle Branch: Ferry Bar Channel, western terminus anchorages
	39.261940	-76.574550	(13) Northwest Branch: East Channel at intersection with Fort McHenry Channel
	39.275080	-76.576210	(14) Northwest Branch: East Channel at northern terminus
	39.271330	-76.575890	(15) Northwest Branch: Intersection of East and West Channels
	39.277310	-76.599340	(16) Northwest Branch: West Channel at northern terminus
Note: Authorized federal and non-federal anchorages associated with the Brewerton, Fort McHenry, Curtis Bay, Ferry Bar, East, and West Channels shall be considered part of the navigation channel system for the purposes of application of designated uses and criteria pursuant to COMAR 26.08.02.02C(1)(f)(i)-(ii) and COMAR 26.08.02.03-3C(9)(e)(I).			
(c) Shellfish Harvest Subcategory: Estuarine portions of Patapsco River mainstem except the Patapsco River and all tributaries upstream of line from Rock Pt. to North Pt.	39.164879	-76.476476	
	39.195821	-76.444927	
(3) Class III:			
(a) Brice Run and all tributaries	39.319009	-76.822519	
(b) Piney Run and all tributaries	39.352413	-76.895710	From mouth upstream to Slacks Road (on Springfield State Hospital grounds)

	39.380859	-76.944293	
(c) Jones Falls and all tributaries	39.391029	-76.654062	Upstream of Lake Roland
(d) Red Run and all tributaries	39.404790	-76.776654	
(e) Gwynns Falls and all tributaries	39.420864	-76.781840	Upstream of Reisterstown Road
(f) Gillis Falls and all tributaries	39.362346	-77.065255	
(g) South Branch Patapsco and all tributaries	39.362284	-77.065456	Upstream of confluence with Gillis Falls tributaries
(h) Unnamed tributary to the South Branch Patapsco River at Henryton and all tributaries to this unnamed tributary	39.350795	-76.915771	
(i) Unnamed tributary to the South Branch Patapsco River at Marriottsville and all tributaries to this unnamed tributary	39.351956	-76.898985	
(j) Piney Branch and all tributaries	39.357049	-76.996543	
(4) Class III-P:			
(a) Piney Run and all tributaries	39.380859	-76.944293	Upstream of Slacks Road (on Springfield State Hospital grounds)
(b) Morgan Run and all tributaries	39.450451	-76.948306	
(c) Norris Run and all tributaries	39.459228	-76.876215	
(d) Cooks Branch and all tributaries	39.438203	-76.872783	
(e) Keyzers Run and all tributaries	39.471594	-76.879122	
(f) Beaver Run and all tributaries	39.484356	-76.898037	
(g) Snowdens Run and all tributaries	39.403823	-76.911979	

(h) Stillwater Creek and all tributaries	39.400553	-76.911755	
(i) Carroll Highlands Run and all tributaries	39.390605	-76.910086	
(j) Autumn Run and all tributaries	39.389618	-76.909671	
(k) Locust Run and all tributaries	39.404995	-76.862578	
(l) Glen Falls Run and all tributaries	39.494078	-76.867964	
(m) East Branch Patapsco River and all tributaries	39.537358	-76.893171	
(n) Little Morgan Run and all tributaries	39.436989	-76.987892	Upstream from confluence with unnamed tributary near Klees Mill Road
(o) Roaring Run (Carroll County) and all tributaries	39.510061	-76.887278	Upstream from mouth
(p) Unnamed Tributary to North Branch Patapsco River and all tributaries	39.534575	-76.891732	Near Wesley Road
(q) Unnamed tributary to the West Branch North Branch Patapsco River and all tributaries	39.574623	-76.955109	Near Tannery Road
(r) Unnamed tributary to the West Branch North Branch Patapsco River and all tributaries	39.559758	-76.927383	Near Dutrow Road
(s) Unnamed tributary to the West Branch North Branch Patapsco River and all tributaries	39.553998	-76.91500	Near Reese Road
(t) Unnamed tributary to Cranberry Branch and all tributaries	39.608109	-76.958926	Near Guadalupe Drive
(u) Unnamed tributary to Liberty Reservoir and all tributaries	39.432231	-76.940664	Flows from area near Woodridge Lane

(v) Unnamed tributary to Liberty Reservoir and all tributaries	39.432498	-76.940303	Flows from area near Sykesville Road
(5) Class IV:			
(a) South Branch Patapsco River	39.350065	-76.882132	Mainstem only
(b) Jones Falls	39.311006	-76.620399	Mainstem only. From North Ave. upstream to Lake Roland Dam
	39.378602	-76.643583	
(c) Herring Run and all tributaries	39.302647	-76.531400	Upstream of Route I-95
(d) Stony Run and all tributaries	39.316898	-76.626541	
(e) Dead Run and all tributaries	39.305360	-76.686387	
(f) Stemmers Run and all tributaries	39.352105	-76.499513	Upstream of Route I-95
(g) Patapsco River	39.221606	-76.713289	Mainstem only. B&O (Thomas) viaduct upstream to confluence of North Branch Patapsco and South Branch Patapsco.
	39.349903	-76.882211	
(h) Gwynns Falls	39.420854	-76.781846	Balt. City/County line upstream to Route 140 (Reisterstown Road)
	39.319253	-76.711336	
(6) Class IV-P:			
(a) North Branch Patapsco River	39.493185	-76.872810	Mainstem only upstream of Liberty Reservoir
(b) West Branch Patapsco River	39.537319	-76.893451	Mainstem only
(c) Cranberry Branch and all tributaries	39.583162	-76.970392	Upstream of MD Route 852 (Old Manchester Road)

L. Sub-Basin 02-13-10: West Chesapeake Bay Area.

Designated Use Class and Waterbody	Latitude	Longitude	Limits
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(1) Class I-P: None.			
(2) Class II:			
(a) Magothy River Mesohaline (MAGMH):	39.039185	-76.414330	(1) Between Beacon Hill and Tydings on the Bay
Designated Use Present in Segment:	39.074715	-76.422539	(2) East side Gibson I. across from Hapenny Way
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	39.114807	-76.548195	(3) End of estuary below Catherine Ave.
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive			
Application Depth: 1.0 meters, NGZ present			
Seasonal Deep Water Fish and Shellfish Use: Upper pycnocline to lower pycnocline from June 1 to September 30, inclusive			
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			
Shellfish Harvest: See §L(2)(f) of this regulation			
(b) Severn River Mesohaline (SEVMH):	38.946095	-76.455879	(1) Bay Ridge, near Bainbridge Ave
Designated Use Present in Segment:	38.976032	-76.452377	(2) Greenbury Pt., 800 feet up east side from the tip
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	39.079697	-76.623398	(3) Severn Run, 1,100 feet downstream of Veterans Hwy.
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive			
Application Depth: 1.0 meters			
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			

Seasonal Deep Water Fish and Shellfish Use: Upper pycnocline to lower pycnocline from June 1 to September 30, inclusive			
Shellfish Harvest: See §L(2)(f) of this regulation			
(c) South River Mesohaline (SOUMH):	38.888672	-76.489876	(1) Saunders Pt., south of Mayo Beach Park
Designated Use Present in Segment:	38.886829	-76.475616	(2) 0.8 miles east of Saunders Pt.
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	38.907860	-76.466240	(3) Southern shore of Thomas Pt. Park
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	38.983105	-76.606232	(4) 700 feet upstream of Rt. 50
Application Depth: 1.0 meters, NGZ present			
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			
Seasonal Deep Water Fish and Shellfish Use: Upper pycnocline to lower pycnocline from June 1 to September 30, inclusive			
Shellfish Harvest: See §L(2)(f) of this regulation			
(d) Rhode River Mesohaline (RHDMH):	38.867775	-76.519608	(1) Salt Pond at the mouth of the Rhode River
Designated Use Present in Segment:	38.864788	-76.485870	(2) 1.2 miles ESE of Dutchman Pt.
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	38.886829	-76.475616	(3) 0.8 miles east of Saunders Pt.
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	38.888672	-76.489876	(4) Saunders Pt., south of Mayo Beach Park

Application Depth: 0.5 meters, NGZ present	38.883629	-76.554649	(5) Muddy Creek, 1,200 feet below N and S Forks converge
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			
Shellfish Harvest: See §L(2)(f) of this regulation			
(e) West River Mesohaline (WSTMH):	38.848892	-76.493805	(1) Felicity Cove, 250 feet north of Bay Rd.
Designated Use Present in Segment:	38.864788	-76.485870	(2) 1.2 miles ESE of Dutchman Pt.
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	38.867775	-76.519608	(3) Salt Pond at the mouth of the Rhode River
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	38.822258	-76.551514	(4) 2,400 feet downstream of Shady Side Rd.
Application Depth: 0.5 meters, NGZ present			
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			
Shellfish Harvest: See §L(2)(f) of this regulation			
(f) Shellfish Harvest Subcategory. All estuarine portions of tributaries except:			
(i) Magothy River and tributaries	39.08422836	-76.51089143	Upstream of Henderson Pt.
	39.0817026	-76.51760596	
(ii) Severn River and tributaries	39.070697	-76.575016	Upstream of mouth of Forked Creek
	39.068054	-76.575866	
(iii) South River and tributaries	38.958948	-76.577045	Upstream of Porter Pt.
	38.958226	-76.582411	
(iv) Rockhold Creek and tributaries	38.782503	-76.559107	Upstream of Mason Beach Road
(v) Tracys Creek	38.778011	-76.563274	Upstream of Rt. 256

(3) Class III: Jabez Branch and all tributaries	39.082056	-76.629864	
(4) Class III-P: None.			
(5) Class IV: Severn Run and all tributaries	39.080917	-76.626467	Upstream of Rt. 3
(6) Class IV-P: None.			

M. Sub-Basin 02-13-11: Patuxent River Area.

Designated Use Class and Waterbody	Latitude	Longitude	Limits
(1) Class I-P:			
(a) Little Patuxent River and all tributaries	39.079294	-76.765442	Upstream of Old Forge Bridge (1 mile south of MD Route 198)
(b) Patuxent River and all tributaries except those designated below as Class III-P or Class IV-P	39.117030	-76.875187	Upstream of Rocky Gorge Dam
(2) Class II:			
(a) Upper Patuxent River Tidal Fresh (PAXTF):	38.700325	-76.695824	(1) On Marshy Point 0.5 miles N of Hotschkins Branch
Designated Uses Present in Segment:	38.700516	-76.694160	(2) 0.8 miles north of Jones Pt.
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	38.874958	-76.677834	(3) Near unnamed stream south of Mt. Nebo Branch
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	38.785023	-76.712456	(4) Mouth of Western Branch, east side
Application Depth: 0.5 meters	38.784637	-76.713326	(5) Mouth of Western Branch, west side
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			
Shellfish Harvest: See §M(2)(j) of this regulation			
(b) Western Branch Patuxent River Tidal Fresh (WBRTF):	38.784637	-76.713326	(1) Mouth of Western Branch, west side
Designated Uses Present in Segment:	38.785023	-76.712456	(2) Mouth of Western Branch, east side

Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	38.797241	-76.729507	(3) Where West. Branch narrows, N of sewage plant
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive			
Application Depth: 0.5 meters			
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			
Shellfish Harvest: See §M(2)(j) of this regulation			
(c) Middle Patuxent River Oligohaline (PAXOH):	38.542320	-76.678818	(1) Chalk Pt., eastern side
Designated Uses Present in Segment:	38.540684	-76.668045	(2) Gods Grace Pt. near end of Leitchs Wharf Rd.
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	38.700516	-76.694160	(3) 0.8 miles north of Jones Pt.
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	38.700325	-76.695824	(4) On marshy point 0.5 miles N of Hotschkins Branch
Application Depth: 0.5 meters			
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			
Shellfish Harvest: See §M(2)(j) of this regulation			
(d) Lower Patuxent River Mesohaline 1 (PAXMH1):	38.304638	-76.421448	(1) Fishing Pt.
Designated Uses Present in Segment:	38.319176	-76.420990	(2) Drum Pt.
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	38.322941	-76.451630	(3) Point of land S of Ship Pt. and E of Ma Leg I.
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	38.321041	-76.451965	(4) Eastern tip of Solomons

Application Depth: 2.0 meters	38.386593	-76.498840	(5) Mouth of St. Leonard Creek, east side
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive	38.389153	-76.506416	(6) Petersons Pt.
Seasonal Deep Water Fish and Shellfish Use: Upper pycnocline to lower pycnocline from June 1 to September 30, inclusive	38.412220	-76.542747	(7) Island Creek mouth, east Side
Shellfish Harvest: See §M(2)(j) of this regulation	38.411896	-76.544487	(8) Island Creek mouth, Broomes Island Side
	38.481140	-76.647560	(9) 0.64 miles south of the Sandy Pt. near Buzzard I.
	38.475594	-76.662788	(10) Trent Hall Pt.
	38.342590	-76.500587	(11) Mouth of Cuckold Creek, north side
	38.339634	-76.499550	(12) Mouth of Cuckold Creek, south side
(e) Lower Patuxent River Mesohaline 2 (PAXMH2):	38.475594	-76.662788	(1) Trent Hall Pt.
Refer to designated uses applicable to Lower Patuxent River Mesohaline 1 (PAXMH1)	38.481140	-76.647560	(2) 0.64 miles south of the Sandy Pt. near Buzzard I.
Shallow Water Application Depth: 0.5 meters	38.540684	-76.668045	(3) Gods Grace Pt. near end of Leitchs Wharf Rd.
	38.542320	-76.678818	(4) Chalk Pt., eastern side
(f) Lower Patuxent River Mesohaline 3 (PAXMH3):	38.321041	-76.451965	(1) Eastern tip of Solomons
Refer to designated uses applicable to Lower Patuxent River Mesohaline 1 (PAXMH1)	38.322941	-76.451630	(2) Point of land S of Ship Pt. and E of Ma Leg I.
Shallow Water Application Depth: 0.5 meters			
(g) Lower Patuxent River Mesohaline 4 (PAXMH4):	38.339634	-76.499550	(1) Mouth of Cuckold Creek, south side
Refer to designated uses applicable to Lower Patuxent River Mesohaline 1 (PAXMH1)	38.342590	-76.500587	(2) Mouth of Cuckold Creek, north side

Shallow Water Application Depth: 0.5 meters			
(h) Lower Patuxent River Mesohaline 5 (PAXMH5):	38.389153	-76.506416	(1) Petersons Pt.
Refer to designated uses applicable to Lower Patuxent River Mesohaline 1 (PAXMH1)	38.386593	-76.498840	(2) Mouth of St. Leonard Creek, east side
Shallow Water Application Depth: 0.5 meters	38.446831	-76.492088	(3) 0.25 miles downstream of Parran Road
(i) Lower Patuxent River Mesohaline 6 (PAXMH6):	38.411896	-76.544487	(1) Island Creek mouth, Broomes Island Side
Refer to designated uses applicable to Lower Patuxent River Mesohaline 1 (PAXMH1)	38.412220	-76.542747	(2) Island Creek mouth, east Side
Shallow Water Application Depth: 0.5 meters	38.433407	-76.540894	(3) 0.7 miles N of point where Marshall Rd. ends
(j) Shellfish Harvest Subcategory. All estuarine portions of tributaries except Patuxent River and tributaries	38.701927	-76.693783	Upstream of Ferry Landing
	38.701509	-76.696046	
(3) Class III: None			
(4) Class III-P: Patuxent River and tributaries Upstream of Triadelphia Reservoir	39.237603	-77.045141	
(5) Class IV: None.			
(6) Class IV-P:			
(a) Patuxent River and tributaries	39.149845	-76.975630	Between Rocky Gorge Reservoir and Triadelphia Reservoir, and including Triadelphia Reservoir
(b) Little Patuxent and Middle Patuxent and all tributaries	39.134120	-76.816032	Little Patuxent and all tributaries upstream of U.S. Route 1 (Washington Boulevard)

N. Sub-Basin 02-14-01: Lower Potomac River Area.

Designated Use Class and Waterbody	Latitude	Longitude	Limits
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(1) Class I-P: Tilghman Lake Reservoir	38.545648	-76.941000	
(2) Class II:			
(a) Lower Potomac River Tidal Fresh (POTTF):	38.524168	-77.284804	(1) MLW midway between Shipping Pt. and Quantico Pier
Designated Uses Present in Segment:	38.523266	-77.256630	(2) 1,000 feet SW of Moss Pt.
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	38.554722	-77.220268	(3) Stump Neck, E of radio towers & W of Roach Rd.
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	38.566856	-77.209755	(4) Cornwallis Neck, 0.25 miles NW of Deep Pt.
Application Depth: 2.0 meters, NGZ present	38.702038	-77.044693	(5) Mockley Pt., 500 feet west of tip
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive	38.711002	-77.036736	(6) West of Fort Washington
Shellfish Harvest: See §N(2)(g) of this regulation	38.809449	-77.016184	(7) DC/MD State Line-northern shore of Oxon Creek
	38.805753	-77.020951	(8) DC/MD State Line-southern shore of Oxon Creek
	38.802464	-77.025166	(9) DC/MD State Line-near Fox Ferry Pt.
	38.791836	-77.038923	(10) DC/MD/VA State line, 200' east of Jones Point Park
	38.711002	-77.036736	(11) West of Ft. Washington
	38.702038	-77.044693	(12) Mockley Pt., 500 west of tip
	38.566856	-77.209755	(13) Cornwallis Neck, 0.25 miles NW of Deep Pt.
	38.554722	-77.220268	(14) Stump Neck, E of radio towers and W of Roach Rd.

Following the mean low water (MLW) line which defines the Maryland/Virginia State boundary to the first point described above, except for the following Virginia embayments where the boundary is the confluence of the mouth of the embayment with the Potomac River; Hunting Creek, Little Hunting Creek, Dogue Creek, Gunston Cove, the unnamed embayment in Mason Neck NWR, Occoquan Bay, Powells Creek, and Quantico Creek.

(b) Lower Potomac River Oligohaline 1 (POTOH1):	38.389680	-77.029268	(1) MLW 1 mile SE of Mathias Pt., just north of 639
Designated Uses Present in Segment:	38.407509	-76.997322	(2) 0.65 miles NW of the town of Popes Creek
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	38.444935	-77.016396	(3) 1.5 miles SE of Chapel Pt., due E of Windmill Pt.
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	38.444565	-77.040695	(4) Windmill Pt.
Application Depth: 2.0 meters, NGZ present	38.408894	-77.110886	(5) Blossom Pt.
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive	38.408745	-77.124855	(6) 0.15 miles SW of Benny Gray Pt.
Shellfish Harvest: See §N(2)(g) of this regulation	38.523266	-77.256630	(7) 1,000 feet SW of Moss Pt.
	38.524168	-77.284864	(8) MLW midway between Shipping Pt. and Quantico Pier

Following the Mean Low Water (MLW) line which defines the Maryland/Virginia State boundary to the first point described above, except for the following Virginia embayments where the boundary is the confluence of the mouth of the embayment with the Potomac River; Unnamed embayment (Chopawamsic Island), Unnamed embayment (near Arkendale Road), Aquia Creek, and Potomac Creek.

(c) Lower Potomac River Oligohaline 2 (POTOH2): Port Tobacco River	38.444565	-77.040695	(1) Windmill Pt.
Designated Uses Present in Segment:	38.444935	-77.016396	(2) 1.5 miles SE of Chapel Pt., due E of Windmill Pt.

Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	38.500164	-77.026306	(3) Port Tobacco Marina (edge of 7.5 foot quad sheet)
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive			
Application Depth: 1.0 meters, NGZ present			
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			
Shellfish Harvest: See §N(2)(g) of this regulation			
(d) Lower Potomac River Oligohaline 3 (POTOH3): Nanjemoy Creek	38.408745	-77.124855	(1) 0.15 miles SW of Benny Gray Pt.
Designated Uses Present in Segment:	38.408894	-77.110886	(2) Blossom Pt.
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	38.475391	-77.130676	(3) Wards Run, 0.25 miles upstream of Hill Top Fork
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive			
Application Depth: 1.0 meters, NGZ present			
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			
Shellfish Harvest: See §N(2)(g) of this regulation			
(e) Lower Potomac River Mesohaline (POTMH):	37.909777	-76.263700	(1) MLW East of Ophelia, 300 feet NW of light
Designated Uses Present in Segment:	38.038605	-76.321442	(2) Point Lookout
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	38.407509	-76.997322	(3) 0.65 miles NW of the town of Popes Creek

Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	38.389680	-77.029268	(4) MLW 1 mile SE of Mathias Pt., just north of 639
Application Depth: meters, NGZ present			
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			
Seasonal Deep Water Fish and Shellfish Use: Upper pycnocline to lower pycnocline from June 1 to September 30, inclusive			
Seasonal Deep Channel Refuge Use: Lower pycnocline boundary to bottom from June 1 to September 30, inclusive			
Shellfish Harvest: See §N(2)(g) of this regulation			
Following the mean low water (MLW) line which defines the Maryland/Virginia State boundary to the first point described above, except for the following Virginia embayments where the boundary is the confluence of the mouth of the embayment with the Potomac River: Upper Machodoc Creek, Rosier Creek, Monroe Bay, Mattox Creek, Popes Creek, Nomini Bay, Lower Machodoc Creek, unnamed embayment (south of Ragged Pt.), Gardner Creek, Jackson Creek, Bonum Creek, Yeocomico River, Coan River, Presley Creek, Hull Creek, and Hock Creek.			
(f) Mattawoman Creek Tidal Fresh (MATTF):	38.566856	-77.209755	(1) Cornwallis Neck, 0.25 miles northwest of Deep Point
Designated Uses Present in Segment:	38.554722	-77.220268	(2) Stump Neck, east of radio towers and west of Roach Road
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	38.591194	-77.124672	(3) 2300 feet downstream of Routes 224/225
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive.			
Application depth: 1.0 meters, NGZ Absent			

Open Water Fish and Shellfish Use: January 1 to December 31, inclusive.			
Shellfish Harvest: See §N(2)(g) of this regulation			
(g) Shellfish Harvest Subcategory. All estuarine portions of tributaries except Potomac River and tributaries	38.415027	-77.265037	Above line from Smith Pt. to Simms Pt.
	38.397067	-77.311346	
(3) Class III: None.			
(4) Class III-P: None.			
(5) Class IV: None.			
(6) Class IV-P: None.			

O. Sub-Basin 02-14-02: Washington Metropolitan Area.

Designated Use Class and Waterbody	Latitude	Longitude	Limits
(1) Class I-P: Potomac River and all tributaries except those designated below as Class III, Class III-P, Class IV, or Class IV-P	38.934494	-77.119225	From MD/DC line to Frederick/Montgomery County line
(2) Class II:			
(a) Anacostia River Tidal Fresh (ANATF):	38.938805	-76.942162	(1) DC/MD State Line-eastern side of Rt. 50 bridge
Designated Uses Present in Segment:	38.918850	-76.941951	(2) 100 feet below Bladensburg Road bridge
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	38.918261	-76.941198	(3) DC/MD State Line-western shore
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive			
Application Depth: 0.5 meters, NGZ present			
Open Water Fish and Shellfish Use: January 1			

to December 31, inclusive			
(b) Piscataway Creek Tidal Fresh (PISTF)	38.711002	-77.036736	(1) West of Ft. Washington
Designated Uses Present in Segment:	38.702038	-77.044693	(2) Mockley Point, 500 feet west of tip
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	38.697979	-76.996788	(3) Piscataway Creek Park, north of sewage disposal plant
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive			
Application depth: 2.0 meters, NGZ Absent			
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive			
(3) Class III:			
(a) Paint Branch and all tributaries	39.022995	-76.945898	Upstream of Capital Beltway (I-495)
(b) Rock Creek and all tributaries	39.137413	-77.128942	Upstream of Muncaster Mill Road
(c) North Branch Rock Creek and all tributaries	39.117721	-77.101155	Upstream of Muncaster Mill Road
(4) Class III-P:			
(a) Little Seneca Creek and all tributaries	39.143846	-77.337504	From the stream's confluence with Bucklodge Branch to the Baltimore and Ohio railroad bridge (see Regulation .03-3E(1) of this chapter)
	39.182396	-77.296787	
(b) Wildcat Branch and all tributaries	39.216251	-77.210016	

(c) Unnamed Tributary to the C & O Canal	39.059602	-77.308583	750 yards east of Blockhouse Point in Blockhouse Point Park
(d) Unnamed Tributary to Muddy Branch	39.065834	-77.297595	North of River Road in Blockhouse Point Park
(5) Class IV:			
(a) Rock Creek and all tributaries	39.094296	-77.117781	From Rt. 28 to Muncaster Mill Road
	39.137409	-77.128938	
(b) Northwest Branch Anacostia River and all tributaries	38.967802	-76.968627	Upstream of East-West Highway (Rt. 410)
(6) Class IV-P:			
(a) Little Seneca Creek and all tributaries	39.198890	-77.284809	Upstream of Little Seneca Lake
(b) Great Seneca Creek	39.166086	-77.228309	Mainstem, Route 28 upstream to Route 355
	39.128749	-77.335885	

P. Sub-Basin 02-14-03: Middle Potomac River Area.

Designated Use Class and Waterbody	Latitude	Longitude	Limits
(1) Class I-P: Potomac River and all tributaries except those designated below as Class III-P or Class IV-P	39.221736	-77.456451	From Frederick/Montgomery County line to confluence with Shenandoah River
(2) Class II: None.			
(3) Class III: None.			
(4) Class III-P:			
(a) Tuscarora Creek and all tributaries	39.458359	-77.375099	
(b) Carroll Creek and all tributaries	39.423513	-77.429438	Upstream of U.S. Route 15

(c) Rocky Fountain Run and all tributaries	39.332070	-77.422527	
(d) Fishing Creek and all tributaries	39.505696	-77.391445	
(e) Hunting Creek and all tributaries	39.550482	-77.358179	
(f) Owens Creek and all tributaries	39.579028	-77.332576	
(g) Friends Creek and all tributaries	39.719868	-77.389272	
(h) Catoctin Creek and all tributaries	39.450300	-77.562603	Upstream of Alternate U.S. Route 40
(i) Little Bennett Creek and all tributaries	39.279411	-77.314709	Upstream of MD Rt. 355
(j) Furnace Branch and all tributaries	39.243999	-77.439955	
(k) Ballenger Creek and all tributaries	39.362694	-77.410124	
(l) Bear Branch and all tributaries	39.292638	-77.405135	From confluence with Bennett Creek upstream
(m) Middle Creek and all tributaries	39.448829	-77.603343	Upstream of the confluence with an unnamed trib south of Geaslin Drive
(n) Unnamed tributary to Talbot Branch and all tributaries to this unnamed tributary	39.455887	-77.160651	Stream flows in southerly direction. Mouth of stream joins Talbot Branch near intersection of Black Ankle Road and Talbot Run Road
(o) Unnamed tributary to Talbot Branch and all tributaries to this unnamed tributary	39.454004	-77.154174	Stream flows in northwesterly direction. Mouth of stream joins Talbot Branch 500 meters east of the intersection of Black Ankle Road and Talbot Run Road
(p) Unnamed tributary to Big Pipe Creek and all tributaries	39.675821	-76.941553	Upstream from confluence with another unnamed tributary just south of Wine Road

(q) Bennett Creek and all tributaries	39.310961	-77.231394	From a point, 700 yards to the east of the intersection of Moxley and Clarksburg Road, upstream
(r) Unnamed tributary to Bennett Creek	39.303758	-77.286898	Near intersection of Prices Distillery Road and Haines Road
(s) Flickinger Branch and all tributaries	39.450649	-77.135427	Near unnamed road off of Black Ankle Road
(t) Unnamed Tributary to Big Pipe Creek and all tributaries	39.675983	-76.919152	Near Dug Hill Drive
(u) Unnamed Tributary to Big Pipe Creek and all tributaries	39.657544	-76.92231	Near Route 27 Manchester Road
(v) Weldon Creek	39.478131	-77.11824	Upstream of tributary near Hoopers Delight Road
(5) Class IV: None.			
(6) Class IV-P:			
(a) Monocacy River and tributaries except those designated above as Class III-P	39.398435	-77.366868	Upstream of U.S. Rt. 40
(b) Catoctin Creek	39.309777	-77.567051	Mainstem only, from mouth upstream to Alternate U.S. Rt. 40
	39.450300	-77.562603	
(c) Israel Creek and all tributaries	39.327756	-77.682559	

Q. Sub-Basin 02-14-05: Upper Potomac River Area.

Designated Use Class and Waterbody	Latitude	Longitude	Limits
(1) Class I-P: Potomac River and all Maryland tributaries except those designated below as Class III-P or Class IV-P	39.323294	-77.726927	From the confluence of Shenandoah River to the confluence of the North and South Branches of the Potomac River
(2) Class II: None.			
(3) Class III: None.			

(4) Class III-P:			
(a) All tributaries to Town Creek	39.522699	-78.543322	
(b) Beaver Creek and all tributaries	39.534756	-77.709125	In Antietam Creek Watershed
(c) Marsh Run and all tributaries	39.649666	-77.688571	In Antietam Creek Watershed
(d) Little Antietam Creek and all tributaries	39.682366	-77.634870	
(e) Camp Spring Run and all tributaries	39.620790	-77.938279	
(f) Lanes Run and all tributaries	39.666906	-77.994074	
(g) White Sulfur Run and all tributaries	39.660897	-78.458186	
(h) Fifteen mile Creek and all tributaries	39.682419	-78.457543	Upstream of the intersection of Fifteen mile Creek Road and Route 40
(i) Terrapin Run and all tributaries	39.668854	-78.433389	Upstream from Route 68
(j) Spring Lick and all tributaries	39.656160	-78.396852	
(k) Big Run and all tributaries	39.524737	-78.533497	In Allegany County
(l) Unnamed tributary to the Potomac River that flows through Twigg Hollow and all tributaries to this unnamed tributary	39.579220	-78.460902	Upstream of terminus of Outdoor Club Road
(m) Unnamed tributary to the Potomac River that flows through Roby Hollow and all tributaries to this unnamed tributary	39.588595	-78.429987	
(n) Unnamed tributary to the Potomac River that flows through Devil's Alley and all tributaries to this unnamed tributary	39.607699	-78.428234	

(o) Unnamed tributary to Sideling Hill Creek at Piney Grove	39.705681	-78.377356	Upstream of the intersection of Orleans Road and Route 40
(p) Unnamed Tributary to Sideling Hill Creek that flows through Swain Hollow and all tributaries to this unnamed tributary	39.678549	-78.340979	
(q) Munson Spring Branch and all tributaries	39.705626	-78.246756	Upstream from a point due north of the Route 68 Exit 77
(r) Unnamed Tributary to Rattle Run that flows through the Hickory Ridge Unit and all tributaries to this unnamed tributary	39.692248	-78.022278	
(s) Unnamed Tributary to Little Conococheague Creek at Polecat Hollow Road and all tributaries to this unnamed tributary	39.691872	-77.939952	From confluence with Little Conococheague parallel to Polecat Hollow Road
(5) Class IV: None.			
(6) Class IV-P:			
(a) Town Creek	39.522699	-78.543322	Mainstem only
(b) Fifteen Mile Creek and all tributaries	39.624306	-78.385322	
(c) Sideling Hill Creek and all tributaries	39.638721	-78.334084	
(d) Tonoloway Creek and all tributaries	39.694133	-78.156356	
(e) Licking Creek and all tributaries	39.651071	-78.049665	
(f) Conococheague Creek and all tributaries	39.601204	-77.828375	
(g) Antietam Creek and all tributaries, except those designated above as Class III-P	39.417405	-77.745951	

(h) St. James Run	39.619544	-77.746772	Mainstem only. Confluence with Marsh Run upstream to headwaters
	39.537282	-77.763520	

R. Sub-Basin 02-14-10: North Branch Potomac River Area.

Designated Use Class and Waterbody	Latitude	Longitude	Limits
(1) Class I-P:			
(a) North Branch Potomac River mainstem except that portion designated below as Use III-P	39.528486	-78.587610	From the confluence of the North and South Branches of the Potomac River to the MD/WV State line
(b) Mill Run and all tributaries (Allegany County) between the confluence with the North Branch Potomac and the Route 220 McMullen Highway road crossing	39.537360	-78.871353	From confluence with North Branch Potomac to the Route 220 McMullen Highway road crossing
	39.533030	-78.886076	
(c) Unnamed tributary to Mill Run and its tributaries in Allegany County	39.533054	-78.886147	From confluence with Mill Run upstream to headwaters
(d) An unnamed tributary near Pinto	39.567213	-78.839990	Confluence of the unnamed tributary with the North Branch of the Potomac River
(2) Class II: None.			
(3) Class III: None.			
(4) Class III-P:			
(a) North Branch Potomac River mainstem from below Jennings Randolph Dam downstream to the confluence with Savage River	39.480398	-79.067187	Mainstem only.
	39.4317897	-79.1167041	
(b) All other waters are Class III-P except:			From confluence of North and South

(i) Those designated above as Class I-P			Branches of the Potomac River to the MD/WV state line
(ii) Those designated below as Class IV-P waters			
Note: Mill Run and all tributaries upstream from the Route 220 McMullen Highway road crossing (near intersection with Hansel Drive) are designated as Class III-P.			
(5) Class IV: None.			
(6) Class IV-P:			
(a) Wills Creek	39.648896	-78.764400	Mainstem only
(b) Evitts Creek	39.624841	-78.739466	Mainstem only
(c) Georges Creek	39.645609	-78.915845	Mainstem only
	39.483470	-79.046265	

S. Sub-Basin 05-02-02: Youghiogheny River Area.

Designated Use Class and Waterbody	Latitude	Longitude	Limits
(1) Class I-P:			
(a) Broad Ford Run and all tributaries	39.407985	-79.371406	Upstream of Dam
(b) Piney Creek and all tributaries	39.701701	-79.019864	Upstream from the confluence with Church Creek to the boundary of the Frostburg Watershed property (near Jay Road)
	39.721323	-78.960085	
(2) Class II: None.			
(3) Class III:			
(a) North and South Branches of the Casselman River and all tributaries	39.668489	-79.177571	Upstream from the confluence of the North and South Branches Casselman to the headwaters
(b) Piney Creek and all tributaries in Maryland, including Church Creek	39.722576	-79.048833	From MD/PA State line upstream to confluence of Church Creek

	39.701701	-79.019864	
(c) Shade Run and all tributaries	39.684455	-79.164149	
(d) Spiker Run and all tributaries	39.680001	-79.169868	
(e) Puzzley Run and all tributaries	39.721853	-79.232254	
(f) Unnamed tributary to the Casselman River and all tributaries to this unnamed tributary	39.709365	-79.117389	
(g) Bucks Run and all tributaries	39.721831	-79.242819	
(4) Class III-P:			
(a) Youghiogheny River and all tributaries joining the mainstem of the Youghiogheny River in Maryland	39.721389	-79.391256	Upstream from MD/PA State line
(b) Piney Creek and all tributaries	39.722497	-78.964199	
(5) Class IV: Casselman River	39.722386	-79.111767	Mainstem only, from Pennsylvania line upstream to the confluence of the South and North Branches of the Casselman
(6) Class IV-P: None.			

T. Sub-Basin 02-05-03: Conewago Creek.

(1) Class I-P: None.
(2) Class II: None.
(3) Class III: None.
(4) Class III-P: None.
(5) Class IV: None.
(6) Use IV-P: None.

U. Sub-Basin 02-13-99: Chesapeake Bay (Mainstem).

Designated Use Class and Waterbody	Latitude	Longitude	Limits
(1) Class I-P: None.			
(2) Class II:			

(a) Northern Chesapeake Bay (CB1TF1): See Sub-Basin 02-12-02: Lower Susquehanna River Area.			
(b) Northern Chesapeake Bay (CB1TF2): See Sub-Basin 02-12-02: Lower Susquehanna River Area.			
(c) Upper Chesapeake Bay (CB2OH): Upper Chesapeake Bay Oligohaline	39.225143	-76.408775	(1) North Pt. SP, Black Marsh, 1200' NE of sm. creek
Designated Uses Present in Segment:	39.207447	-76.246994	(2) 3,000 feet S of Rt. 21 (Tolchester Beach Rd.)
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	39.372025	-76.101227	(3) 2,850 feet east of Howells Pt.
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	39.389511	-76.040848	(4) Grove Pt.
Application Depth: 0.5 meters, NGZ present	39.401688	-76.035194	(5) North of Chesapeake Haven, Grove Neck
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive	39.420143	-76.123344	(6) 1,000 feet SW of Cherry Tree Pt., APG
Shellfish Harvest: See §U(2)(g) of this regulation	39.351715	-76.232986	(7) North Pt. south of Fort Howard
	39.339172	-76.256592	(8) 800 feet upriver of Lego Pt.
	39.303204	-76.296249	(9) Rickett Pt. at end of Ricketts Pt. Rd.
	39.312767	-76.32119	(10) Carroll Pt.
	39.312862	-76.321449	(11) Carroll Pt.
	39.316414	-76.331039	(12)(12) Carroll I., midway betw. White Oak and Carroll Pts.
	39.309422	-76.342964	(13) Carroll Island, between Weir Pt. and Hawthorn Cove
	39.286442	-76.384102	(14) North shore of Holly Beach
	39.248951	-76.41053	(15) Rocky Pt. Park, between Claybank and Cedar Pts.

	39.231178	-76.40892	(16) Swan Pt., in line with 11th St.
(d) Upper Central Chesapeake Bay (CB3MH): Upper Chesapeake Bay Mesohaline	38.995991	-76.413185	(1) 500 feet SE of Moss Pond
Designated Uses Present in Segment:	38.989105	-76.330185	(2) 0.6 miles NE of where Rt. 50 W meets the Bay
Migratory Spawning and Nursery Use: February 1 to May 31, inclusive	39.016422	-76.296959	(3) Kent Island, 1,600 N of Grollman Rd.
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	39.02972	-76.242516	(4) Wickes Beach, Eastern Neck Island
Application Depth: 0.5 meters, NGZ present	39.054563	-76.220229	(5) Northern tip of Eastern Neck Island, east of Route 445 Bridge
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive	39.056882	-76.220903	(6) Southern End of Eastern Neck, east of Route 445 Bridge
Seasonal Deep Water Fish and Shellfish Use: Upper pycnocline to lower pycnocline from June 1 to September 30, inclusive	39.207447	-76.246994	(7) 3,000 S of Rt. 21 (Tolchester Beach Rd.)
Seasonal Deep Channel Refuge Use: Lower pycnocline boundary to bottom from June 1 to September 30, inclusive	39.225143	-76.408775	(8) North Pt. SP, Black Marsh, 1,200 feet NE of sm. creek
Shellfish Harvest: See §U(2)(g) of this regulation	39.195377	-76.444511	(9) North Pt. south of Fort Howard
	39.131855	-76.435081	(10) Bodkin Neck between Cedar and Bodkin Pts.
	39.074715	-76.422539	(11) East side Gibson I. across from Hapenny Way
	39.039185	-76.41433	(12) Between Beacon Hill and Tydings on the Bay
(e) Middle Central Chesapeake Bay (CB4MH):	38.384819	-76.381432	(1) Cove Pt.

Designated Uses Present in Segment:	38.393951	-76.282532	(2) Meekins Neck, 800 feet north of Cattail Island
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	38.421051	-76.288589	(3) Meekins Neck, across channel from Point #4
Application Depth: 2.0 meters, NGZ present	38.421944	-76.288742	(4) Southern tip of Taylors Island
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive	38.487057	-76.331779	(5) West side of Oyster Cove, Taylors Island
Seasonal Deep Water Fish and Shellfish Use: Upper pycnocline to lower pycnocline from June 1 to September 30, inclusive	38.526997	-76.333771	(6) 190 feet south of LCHMH Point #3
Seasonal Deep Channel Refuge Use: Lower pycnocline boundary to bottom from June 1 to September 30, inclusive	38.527523	-76.333801	(7) East edge of tidal flat N of existing James Island
Shellfish Harvest: See SI>U(2)(g) of this regulation	38.672421	-76.340698	(8) 720 feet along shore NNW of Blackwalnut Pt.
	38.719185	-76.334084	(9) South side Knapps Narrows, 275 feet west of Rt. 33
	38.719967	-76.333054	(10) North side Knapps Narrows, 150 feet west of Rt. 33
	38.752529	-76.340332	(11) 1,500 feet NE of Green Marsh Pt.
	38.836365	-76.369392	(12) Kent Pt.
	38.989105	-76.330185	(13) 0.6 mile NE of where Rt. 50 W meets the Bay
	38.995991	-76.413185	(14) 500 feet SE of Moss Pond
	38.976032	-76.452377	(15) Greenbury Pt., 800 feet up east side from the tip
	38.946095	-76.455879	(16) Bay Ridge, near Bainbridge Ave

	38.90786	-76.46624	(17) Southern shore of Thomas Pt. Park
	38.848892	-76.493805	(18) Felicity Cove, 250 feet north of Bay Rd.
(f) Lower Central Chesapeake Bay (CB5MH):	37.889451	-76.236198	(1) Smith Pt.
Designated Uses Present in Segment:	37.88568	-76.229038	(2) MD/VA State Line-2500' SW of Smith Pt.
Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive	37.941404	-76.083908	(3) MD/VA State Line-2.25 miles west of Smith Gut Pt.
Application Depth: 2.0 meters, NGZ present	38.05191	-76.128838	(4) 7,000 feet N and 2,500 feet W of Fog Pt., Smith Island
Open Water Fish and Shellfish Use: January 1 to December 31, inclusive	38.231445	-76.135773	(5) Lower Hooper I. between Nancys and Creek Pts.
Seasonal Deep Water Fish and Shellfish Use: Upper pycnocline to lower pycnocline from June 1 to September 30, inclusive	38.248581	-76.153191	(6) Lower Hooper Island, NE end of The Thorofare
Seasonal Deep Channel Refuge Use: Lower pycnocline boundary to bottom from June 1 to September 30, inclusive	38.248642	-76.154419	(7) Middle Hooper Island, NW end of The Thorofare
Shellfish Harvest: See §U(2)(g) of this regulation	38.295982	-76.204597	(8) NW tip of Middle Hooper I. across from Ferry Pt.
	38.298965	-76.206718	(9) Ferry Pt.
	38.348228	-76.227264	(10) Drawbridge, northern Upper Hooper Island
	38.349953	-76.227982	(11) Drawbridge, southern Meekins Neck
	38.393951	-76.282532	(12) Meekins Neck, 800 feet north of Cattail Island
	38.384819	-76.381432	(13) Cove Pt.
	38.319176	-76.42099	(14) Drum Pt.
	38.304638	-76.421448	(15) Fishing Pt.

	38.038605	-76.321442	(16) Point Lookout
	37.909725	-76.263702	(17) East of Ophelia, 300 feet NW of light
(g) Shellfish Harvest Subcategory. All waters of the Chesapeake Bay Proper From the Susquehanna River mouth to the Virginia State line, including the tidal waters of the Chesapeake Bay bounded generally by the shoreline of the Bay and by "zero river mile" lines of estuaries and tributaries to the Bay, as designated by the Department of the Environment, and any peripheral waters designated as part of the Chesapeake Bay Proper by the Department of the Environment after consultation with the Tidewater Administration and the Forest, Park and Wildlife Service.			
(3) Class III: None.			
(4) Class III-P: None.			
(5) Class IV: None.			
(6) Class IV-P: None.			

.09 Ground Water Quality Standards.

A. Discharge Approval Required.

(1) Any discharge or disposal of waters or wastewaters into the underground waters of the State requires the approval of the Department. The approval, if granted, will contain limitations and requirements deemed necessary by the Department to protect the public health and welfare and to prevent pollution of ground and surface waters.

(2) A separate State discharge permit is required for:

(a) Wastewater effluents disposed of by means of spray or other land treatment or application systems;

(b) Ground water recharge systems;

(c) Discharge of leachate from a landfill to surface or ground waters except as specified in §A(3)(a); and

(d) Other subsurface disposal systems not specifically exempted in this regulation.

(Agency note: A separate State discharge permit is a discharge permit issued to an individual discharger or point source. A general permit is a State discharge permit issued to a class of dischargers pursuant to COMAR 26.08.04.08.)

(3) A separate State discharge permit is not required for:

(a) Landfills designed to achieve natural attenuation of leachate and permitted under Environment Article, §9-204 or 9-224, unless there is a discharge of leachate to surface waters of the State;

(b) Subsurface sewage disposal systems using soil absorption and permitted by the Department under Environment Article, Title 9, Subtitle 5, Annotated Code of Maryland, and COMAR 26.04.02;

(c) Sewage sludge composting or disposal operations permitted by the Department under Environment Article, Title 9, Subtitle 2, Part III, Annotated Code of Maryland, unless there is a direct discharge of wastewater to surface waters of the State; and

(d) Other subsurface disposal systems permitted by the Department under the provisions of COMAR 26.08.04.08.

(4) An Underground Injection Permit issued under COMAR 26.08.07 also constitutes a discharge permit under this regulation.

(5) The land application of food processing wastewater is exempt from the requirement to obtain a State discharge permit if the wastewater meets the Maryland Department of Agriculture (MDA) State Chemist Office requirements for registration as a soil conditioner, subject to the following conditions and exceptions:

(a) MDA notifies the Department that a determination has been made that the wastewater meets the requirements for registration as a soil conditioner. If the Department has not responded within 45 days of the notification, the determination made by MDA shall be considered accepted and the applicant shall be exempt from obtaining a State discharge permit. If the Department verifies or rejects MDA's State Chemist determination within 45 days of the notification, the Department may still require a State discharge permit.

(b) The applicant continues to perform any necessary actions to ensure that the wastewater meets the requirements for registration as a soil conditioner, and complies with

the COMAR 15.20.04—15.20.08, which includes the applicant's obligation to obtain and comply with a Nutrient Management Plan governing the application of the wastewater.

(c) Department representatives upon presentation of credentials are allowed at reasonable times to enter premises to inspect any wastewater collection, treatment, land application records and practices, and food processing operation records.

(d) An application for renewal of the exemption set forth herein must be submitted to MDA within 5 years of the exemption date from obtaining a State discharge permit. The requirements of this subsection apply for the renewal process.

(e) The Department may deny the permit exemption during the 45 day period or at any time choose to revoke a permit exemption provided under this section.

B. Aquifer Types Identified. For the purpose of controlling the pollution of the ground waters of the State, the Department of the Environment has identified three aquifer types and has established standards for ground water quality, as follows:

(1) Type I aquifer means an aquifer having a transmissivity greater than 1,000 gallons/day/foot and a permeability greater than 100 gallons/day/square foot. In addition, the total dissolved solids concentration for natural water in each aquifer shall be less than 500 milligrams/liter.

(2) Type II aquifer means an aquifer having either:

(a) A transmissivity greater than 10,000 gallons/day/foot, a permeability greater than 100 gallons/day/square foot and natural water with a total dissolved solids concentration of between 500 and 6,000 milligrams/liter; or

(b) A transmissivity between 1,000 and 10,000 gallons/day/foot, a permeability greater than 100 gallons/day/square foot and natural water with a total dissolved solids concentration of between 500 and 1,500 milligrams/liter.

(3) Type III aquifer means all aquifers other than Type I and Type II aquifers.

C. Discharge Quality Criteria. The following criteria apply outside of designated mixing zones (for the purpose of this section, the term "mixing zone" means an area or volume established by the Department for the mixing of ambient ground water with waters or wastewaters, or both, discharged as authorized by the Department):

(1) For Type I Aquifers. The characteristics or constituents of waters may not exceed primary or secondary standards for drinking water as adopted by the Department of the Environment in COMAR 26.04.01.

(2) For Type II Aquifers. The characteristics or constituents of waters after treatment by commercially available home water treatment or softening systems may not exceed primary or secondary standards for drinking water, except for total dissolved solids, as adopted by the Department of the Environment in COMAR 26.04.01 and §B(2) of this regulation.

(3) For Type III Aquifers. The characteristics or constituents of waters shall be such that they do not meet Type I or Type II quality criteria.

D. Guidelines for Discharge to Ground Waters.

(1) Land disposal of municipal wastewater or wastewater with similar characteristics shall follow the Department of the Environment's "Guidelines for Land Application/Reuse of Treated Municipal Wastewaters" MDE-WMA-001-04/10, which is incorporated by reference.

(2) Discharges to a ground water aquifer of specific classification may not result in pollution of an aquifer possessing higher quality criteria.

(3) Discharges to ground water may not result in degradation of ground waters below the criteria established in §C, outside a mixing zone specified in a State discharge permit, general permit, or other permit issued by the Department of the Environment.

(4) Dischargers or potential dischargers to ground waters may be required to monitor ground or surface waters, or both, in a manner and frequency and at locations specified by the Department of the Environment and to periodically submit the results of these activities.

(5) As provided in COMAR 26.13.05.18, the underground injection of hazardous wastes is prohibited.

.10 Water Quality Certification.

A. General.

(1) The Federal Act prohibits the issuance of a federal permit or license to conduct any activity which may result in any discharge to navigable waters unless the applicant provides a certification from this State that the activity does not violate State water quality standards or limitations. This regulation establishes the procedures under which this certification will be issued.

(2) Discharges permitted by the Department under the National Pollutant Discharge Elimination System are certified by the Department.

B. Application for a Water Quality Certification.

(1) An applicant for certification shall submit to the Department an application which includes:

(a) Name and address of the applicant.

(b) A description of the facility or activity.

(c) A description of any discharge which may result from the conduct of any activity including:

(i) Biological, chemical, thermal or other characteristics of the potential discharge; and

(ii) The location or locations at which any discharge may enter navigable waters.

(d) A description, if applicable, of the function and operation of any equipment or facilities to treat any discharge and the degree of treatment to be attained.

(e) The date on which the activity will begin or end, if known, and the date or dates on which any discharge may occur.

(f) A description, if applicable, of the methods proposed or employed to monitor the quality and characteristics of any discharge.

(g) Any other information the Department determines is necessary for evaluation of the impact of the activity on water quality. This may include quantitative analysis to demonstrate that the proposed activity may not violate State water quality standards.

(2) Discharges to Outstanding National Resource Waters (ONRW) will be certified only if:

(a) There is minimal adverse environmental impact;

(b) The discharges will not impair the water quality necessary to maintain the exceptional biological resource of the ONRW; and

(c) All practical actions have been taken to avoid impacts.

(3) By agreement with either federal or State agencies in order to facilitate the certification process, the Department may develop a joint application for a federal license or permit and State water quality certification.

C. Public Notice.

(1) The Department shall provide public notice of each application for certification.

(2) The public notice shall:

- (a) Give a brief description of the proposed activity;
- (b) Provide instructions for submission of written comments; and
- (c) Specify the expiration date for the opportunity to comment.

(3) The public notice may be given by:

- (a) Joint notice with the federal permitting agency;
- (b) Joint notice with other State agencies; or
- (c) Selected mailings to State, county, or municipal authorities and other parties known to be interested in the matter.

D. Determination of Need for Public Hearing. The Department may hold a public hearing before issuing any water quality certification if:

- (1) The Department determines the activity requiring certification is of broad, general interest; or
- (2) The application for certification generated substantial public interest as indicated by written comments concerning water quality issues.

E. Issuance of Certification.

(1) Certification Issuance. If the Department determines the proposed activities will not cause a violation of applicable State water quality standards, the Department shall issue the water quality certification.

(2) Applicant Responsibilities.

(a) Issuance of water quality certification does not relieve the applicant of his responsibility to comply at all times with federal and State law.

(b) The applicant shall:

(i) Obtain the State water quality certification before the conduct of any activity requiring the federal permit;

(ii) Comply with all conditions of the State water quality certification to assure achievement of State water quality standards.

(3) Emergency Procedures. The Department:

(a) May issue an emergency water quality certification in those cases when the Department determines that an unacceptable threat to human life, water quality, or aquatic resources may occur or in those cases when a severe loss of property may result before a certification can be issued in accordance with procedures specified in §C of this regulation;

(b) Shall issue a notice stating its action and the reasons for the action in accordance with the requirements of §C of this regulation, not later than 10 days following the issuance of the emergency certification;

(c) Shall incorporate in the emergency certification all standards and criteria normally applied to the specific type of project authorized by the emergency certification.

F. Procedures for Public Hearing.

(1) Notice of Public Hearing. The notice of public hearing shall:

- (a) Include a brief description of the project;

- (b) Include information concerning the date, time, and location of the public hearing;
- (c) Include a brief description of the nature of the written comments received; and
- (d) Be published in the Maryland Register at least 45 days before the hearing.

(2) Public Hearing.

(a) An interested person shall be given an opportunity to present evidence for or against the granting of water quality certification at the public hearing.

(b) Written comments shall be received by the Department by the date of the public hearing, unless the comment period is specifically extended at the hearing.

(3) Final Determination. After the closing date for receipt of written comments and after any public hearing the Department shall:

- (a) Consider the testimony and other information presented;
- (b) Prepare a written decision; and
- (c) Publish the decision in the Maryland Register.

(4) Appeal of Final Decision.

(a) A person aggrieved by the Department's decision concerning a water quality certification may appeal the decision of the Department. The appeal shall:

(i) Be filed within 30 days of the publication of the final decision with the hearing office; and

(ii) Specify, in writing, the reason why the final determination should be reconsidered.

(b) A further appeal shall be in accordance with the applicable provisions of State Government Article, §10-201 et seq., Annotated Code of Maryland.

G. General Certification.

(1) The Department may issue a general water quality certification for a class of activities requiring any federal license or permit.

(2) A general certification shall authorize all activities that meet the class description.

(3) In unique circumstances not considered in the issuance of the general certification, the Department may require issuance of an individual water quality certification for an activity that could be regulated under a general certification.

H. General Certification Issuance and Renewal.

(1) If the Department determines to adopt a general certification for a specific class of activities, the Department shall prepare a fact sheet:

- (a) Describing the class of activities to be included; and
- (b) Outlining the proposed conditions and limitations of the general certification.

(2) Notice of Intent to Adopt General Certification.

(a) The Department shall prepare a public notice which includes:

(i) A brief description of the general and special conditions which are proposed to be included in the general certification.

(ii) Provisions for examination by interested parties of the draft permit and other information related to the preliminary determination made by the Department.

(iii) A request for written comments concerning the general permit and a statement that a public hearing may be held if significant written public comment concerning the application is received by the Department.

(iv) Instructions for submission of written comments.

(v) The deadline specified for the submission of written comments. The deadline shall be at least 30 days from the date of publication of notice in the Maryland Register.

(b) The Department shall publish the notice in the Maryland Register. A copy of the notice shall be sent to:

(i) Local health officers;

(ii) Other interested State and local agencies; and

(iii) Any person requesting to be notified.

(3) Public Hearings.

(a) A public hearing shall be held and a notice of the public hearing shall be prepared and distributed if:

(i) There is significant public comment concerning the tentative determination to issue a general certification; or

(ii) The Department determines that a public hearing is necessary.

(b) The notice of public hearing shall be prepared and published in accordance with §F of this regulation.

(c) The public hearing shall be conducted in accordance with the procedure outlined in §F of this regulation.

(4) Appeal of Final Decision. A person aggrieved by the Department's decision concerning a general water quality certification may appeal the decision of the Department. The appeal shall be in accordance with §F(4) of this regulation.

I. Applicant's Responsibility. General certification of any activity does not relieve the applicant of his responsibility to comply at all times with federal and State laws.

.11 General Water Quality Certifications.

A. General Water Quality Certification (GWQC) for Marsh Creation Projects.

(1) Scope of Activity.

(a) Definition. Marsh creation projects are defined as the vegetative stabilization of tidal shorelines and nontidal stream banks that are subject to erosion.

(b) Exception. The projects certified by this GWQC do not include marshes created for storm water management purposes.

(c) Marsh Creation. The creation of marshes includes the following activities:

(i) The placement of fill material such as earth or sand;

(ii) The construction of stone containment structures;

(iii) The grading of banks; and

(iv) The planting of *Spartina alterniflora*, *Spartina patens*, or other species acceptable to the Department.

(2) Certification. A federally permitted marsh creation project which meets the conditions of this GWQC is authorized under §401 of the Clean Water Act (33 U.S.C. 1341 (1987)), provided that other applicable federal, State, and local laws and regulations are satisfied.

(3) Design Specifications.

(a) The stabilization activity shall be determined to be necessary for the prevention of erosion on tidal shorelines or nontidal stream banks.

(b) The placement of fill material authorized by this GWQC shall be limited to less than an average of 2 cubic yards of material per running foot placed within waters of the State.

(c) The project is a single and complete project.

(d) The applicant, in planning the project, shall comply with seasonal limitations applied to the construction phase for the protection of important aquatic species.

(4) Construction Specifications.

(a) Material may not be placed in excess of the minimum needed for erosion protection. All temporary fills shall be removed in their entirety on or before the completion of construction.

(b) Material may not be placed in any location or in any manner so as to impair surface or subsurface water flow into or out of any wetland area.

(c) Placement of fill material in existing vegetated wetlands shall be minimized to the greatest extent possible.

(d) Only clean material free of waste metal products, organic material, unsightly debris, toxic substances in toxic amounts, or any other deleterious substance shall be placed. The fill material to be placed shall include clean earth fill, sand, and stone only.

(e) Discharges in spawning areas during spawning seasons of important aquatic species shall be avoided.

(f) Placement of fill material may not restrict or impede the movement of aquatic species indigenous to the waters or cause the relocation of the water.

(g) Placement of fill material into breeding areas for migratory waterfowl shall be avoided.

(h) Heavy equipment working in wetlands shall be placed on mats, or suitably designed to prevent damage to the wetlands.

(5) Applicant's Responsibility.

(a) This GWQC does not relieve the applicant of the responsibility for obtaining any other approvals, licenses, or permits in accordance with federal and State laws or regulations, or local ordinances.

(b) This GWQC does not authorize the beginning of any proposed work in the absence of necessary approvals, licenses, or permits.

(c) The applicant is required to comply with all conditions of this general certification.

(6) Right of Inspection.

(a) Reliance on this GWQC by the applicant or his agent constitutes permission to inspect at any time the operations and records for any project conducted under the authority of this GWQC.

(b) Failure to comply with the conditions of this GWQC shall constitute reason for suspension or revocation of the applicant's use of this GWQC.

(c) Legal proceedings may be instituted against the alleged violator in accordance with Health-General Article, §2-207, and State Government Article, §§10-201 et seq., Annotated Code of Maryland.

B. General Water Quality Certification (GWQC) for the Installation of Utility Lines.

(1) Scope of Activity.

(a) Definition. Utility lines are defined as any pipe, cable, or wire for the conveyance of public water or public sewer, natural gas, or the transmission of electrical, radio, or telecommunications service.

(b) Exceptions.

(i) Utility lines do not include intake and outfall structures or any pipe and pipeline used to transport any gaseous, liquid, or slurry substance except as associated with natural gas, water, and sewage lines.

(ii) Blasting, as a construction method, is not authorized by this GWQC.

(iii) Installation of gas pipe lines larger than 12 inches in diameter is not authorized by this GWQC.

(c) Installation. The installation of utility lines includes the following activities:

(i) The trenching, jetting, jackhammering, or plowing of wetlands or waterways;

(ii) The laying of a pipe, cable, or wire;

(iii) The backfilling of the excavated trench containing the pipe, cable, or wire;

(iv) The placement of riprap; and

(v) The vegetative stabilization of wetland areas which have been disturbed.

(2) Certification. A federally permitted utility line installation which meets the conditions of this GWQC is authorized under §401 of the Clean Water Act (33 U.S.C. 1341 (1987)), provided that other applicable federal, State and local laws and regulations are satisfied.

(3) Design Specifications.

(a) The applicant, in planning the project, shall comply with seasonal limitations applied to the construction phase for the protection of important aquatic species.

(b) The post-construction bottom contours of waters and elevations of wetlands shall be the same as original contours and elevations.

(c) Disturbances of wetlands and waterways shall be avoided or minimized through the use of other practical alternatives such as designing the utility line in a proposed or existing roadway or using an existing right-of-way.

(4) Construction Specifications.

(a) Excess material shall be removed to an upland disposal area identified on the plan submitted for approval.

(b) Temporary fill materials shall be removed in their entirety on or before the completion of construction.

(c) Material may not be placed in any location or in any manner so as to impair surface or subsurface water flow into or out of any wetland area.

(d) If backfill material is obtained from sources other than the originally excavated material, it shall be clean material, free of waste metal products, organic material, unsightly debris, toxic substances in toxic amounts, or any other deleterious substance.

(e) Permanent work may not:

(i) Restrict or impede the movement of aquatic species indigenous to the waters;

(ii) Restrict or impede the passage of normal or expected high flows;

(iii) Cause the relocation of the water; or

(iv) Cause the impoundment of water.

(f) To protect important aquatic species, in-stream work is prohibited as determined by the use designation of the stream, as follows:

(i) Class I and Class I-P Waters. In-stream work may not be conducted during the period March 1 through June 15, inclusive, during any year.

(ii) Class II Waters. In-stream work may not be conducted during the period June 1 through September 30 or December 16 through March 14, inclusive, during any year.

(iii) Class III and Class III-P Waters. In-stream work may not be conducted during the period October 1 through April 30, inclusive, during any year.

(iv) Class IV and Class IV-P Waters. In-stream work may not be conducted during the period March 1 through May 31, inclusive, during any year.

(g) Disturbances in breeding areas for migratory waterfowl shall be avoided.

(h) Heavy equipment working in wetlands shall be placed on mats or suitably designed to prevent damage to the wetland.

(i) The applicant shall obtain and comply with a State or locally approved sediment control plan. The following apply:

(i) This plan shall be on site during all phases of construction;

(ii) Sediment bearing waters may not be discharged to the receiving waterway except as provided in the approved sediment control plan;

(iii) Discharges of sediment bearing water may not cause violations of the applicable State water quality standards.

(5) Applicant's Responsibility.

(a) This GWQC does not relieve the applicant of the responsibility for obtaining any other approvals, licenses, or permits in accordance with federal and State law or regulation, or local ordinance.

(b) This GWQC does not authorize the beginning of any proposed work in the absence of necessary approvals, licenses, or permits.

(c) The applicant is required to comply with all conditions of the GWQC.

(d) The applicant is required to maintain all utility installations constructed under the authority of this GWQC. All utility maintenance is subject to the conditions of this GWQC.

(6) Right of Inspection.

(a) Reliance on this GWQC by the applicant or his agent constitutes permission to inspect at any time the operations and records for any project conducted under the authority of this GWQC.

(b) Failure to comply with the conditions of this GWQC shall constitute reason for suspension or revocation of the applicant's use of this GWQC.

(c) Legal proceedings may be instituted against the alleged violator in accordance with Health-General Article, §2-207, and State Government Article, §§10-201 et seq., Annotated Code of Maryland.

.12 General Water Quality Certification (GWQC) for the Construction of Bulkheads.

A. Scope of Activity.

(1) Definition. "Bulkheads" means the structural stabilization of tidal and nontidal shorelines that are subject to erosion.

(2) Exceptions.

(a) Bulkheads authorized by this GWQC do not include structures which allow passage of a discharge pipe of any kind, such as storm water outfalls and those outfalls regulated under State discharge permits.

(b) Riprap revetments are not authorized by this GWQC.

(3) Bulkhead Construction. The construction of bulkheads includes the following activities:

(a) Driving of piles;

(b) Placement of a timber, aluminum, or steel vertical shoreline erosion control structure;

(c) Placement of a gabion wall;

(d) Placement of backfill behind the structure; and

(e) Placement of riprap at the channelward toe of the structure.

B. Certification. A federally permitted bulkhead project which meets the conditions of the GWQC is authorized under §401 of the Federal Act provided that other applicable federal, State, and local laws and regulations are satisfied.

C. Design Specifications.

(1) The stabilization activity shall be necessary for the prevention of erosion on tidal shorelines or nontidal stream banks.

(2) The placement of fill material authorized by this GWQC shall be limited to an average of 1 cubic yard of material per running foot placed within waters of the State.

(3) The project shall be a single and complete project.

(4) The project shall be limited to 500 feet in length.

D. Construction Specifications.

(1) The vertical structure shall be constructed in its entirety before the discharge of backfill material.

(2) Material may not be placed in excess of the minimum needed for erosion protection.

(3) Excess material shall be removed to an upland site identified on the plan submitted for the federal permit.

(4) Temporary fills shall be removed in their entirety on or before the completion of construction.

(5) Material may not be placed in any location or in any manner so as to impair surface or subsurface water flow into or out of any wetland area.

(6) Placement of fill material in existing vegetated wetlands shall be minimized to the greatest extent possible. Bulkheads shall be placed landward of existing marsh vegetation. An area which contains more than 10 percent vegetated wetlands may not be filled.

(7) Where the vertical structure is inundated by 2 feet or greater depths of water at the mean high water tide, stone riprap shall be placed at the toe of the structure to protect the structure from wave and tide action and to prevent the disturbance and transport of sediment to waters of the State, which may occur as a result of the scouring actions of wave and tide. Gabion walls are exempted from this requirement.

(8) Only clean material free of waste metal products, organic material, unsightly debris, toxic material, or any other deleterious substance shall be placed as backfill.

(9) The applicant shall obtain and comply with a State or locally approved sediment control plan when disturbing or placing greater than 100 cubic yards of earth or backfill.

(10) Work in the waterway in spawning areas during spawning seasons of important aquatic species is prohibited.

(11) Placement of fill material may not restrict or impede the movement of aquatic species indigenous to the waters, or cause the relocation of the waters.

(12) Disturbances in breeding areas for migratory waterfowl shall be avoided.

(13) Heavy equipment working in wetlands shall be placed on mats, or suitably designed to prevent damage to the wetlands.

E. Applicant's Responsibility.

(1) This GWQC does not:

(a) Relieve the applicant of the responsibility for obtaining any other approvals, licenses, or permits in accordance with federal and State laws or regulation, or local ordinances;

(b) Authorize the beginning of any proposed work in the absence of necessary approvals, licenses, or permits.

(2) The applicant shall comply with all conditions of this general certification.

F. Right of Inspection and Department Enforcement.

(1) Reliance on this GWQC by the applicant or the applicant's agent constitutes permission to the Department to inspect at any time the operations and records for any project constructed under the authority of this GWQC.

(2) An activity is authorized by the GWQC as long as compliance with the conditions of the GWQC is maintained. Upon failure to comply with the conditions of this GWQC, the applicant is required to apply for an individual water quality certification.

(3) Legal proceedings may be instituted against an alleged violator in accordance with the provisions of the Environment Article and State Government Article, Annotated Code of Maryland.

.13 General Water Quality Certification (GWQC) for the Placement of Riprap for Shore Protection.

A. Scope of Activity.

(1) Definition. Riprap revetments are defined as:

(a) A facing of loose stone, brick, or masonry placed for the purpose of stabilizing tidal and nontidal shorelines that are subject to erosion; and

(b) Being constructed with materials of suitable size and weight to prevent their transport into the waterway.

(2) Exceptions.

(a) Riprap revetments authorized by the GWQC do not include structures which allow passage of a discharge pipe of any kind, such as storm water outfalls and those outfalls regulated under State discharge permits.

(b) Materials authorized for placement may not include asphalt, waste metal products, organic materials, unsightly debris, toxic material, or any other deleterious substance.

(c) Revetments may not be constructed to create fastland.

(3) Construction of Revetments. The construction of revetments includes the following activities:

(a) Excavation;

(b) Placement of filter cloth or other base;

(c) Stabilization of disturbed slopes by seeding or planting;

(d) Placement of loose or broken stone;

(e) Placement of aggregate or concrete mix;

(f) Placement of concrete and block;

(g) Pouring of concrete; and

(h) Placement of backfill.

B. Certification. A federally permitted placement of riprap which meets the conditions of the GWQC is authorized under §401 of the Federal Act, provided that other applicable federal, State, and local laws and regulations are satisfied.

C. Design Specifications.

(1) The stabilization activity shall be necessary for the prevention of erosion on tidal or nontidal shorelines.

(2) The placement of fill material authorized by the GWQC shall be limited to the minimum needed for erosion protection.

(3) The project shall be a single and complete project.

D. Construction Specifications.

(1) Material may not be placed in excess of the minimum needed for erosion protection.

(2) Excess material shall be removed to an upland site identified on the plan submitted for the federal permit.

(3) Temporary fills shall be removed in their entirety on or before the completion of construction.

(4) Material may not be placed in any location or in any manner so as to impair surface water flow into or out of any wetland area.

(5) Placement of fill material in existing vegetated wetlands shall be minimized to the greatest extent possible. Riprap revetments shall be placed landward of existing marsh vegetation. An area which contains more than 10 percent vegetated wetlands may not be filled.

(6) The maximum slope of riprap revetments may not exceed 2:1.

(7) The maximum encroachment of riprap revetments may not extend more than 10 feet channelward of the mean high water shoreline.

(8) Riprap revetments shall be constructed on a base of filter cloth.

(9) The applicant shall obtain and comply with a State or locally approved sediment control plan when disturbing or placing greater than 100 cubic yards of earth or backfill.

(10) Work in the waterway in spawning areas during spawning seasons of important aquatic species is prohibited.

(11) Placement of fill material may not restrict or impede the movement of aquatic species indigenous to the waters or cause the relocation of the waters.

(12) Disturbances in breeding areas for migratory waterfowl shall be avoided.

(13) Heavy equipment working in wetlands shall be placed on mats, or suitably designed to prevent damage to the wetlands.

E. Applicant's Responsibility.

(1) This GWQC does not relieve the applicant of the responsibility for obtaining any other approvals, licenses, or permits in accordance with federal and State laws or regulation, or local ordinances.

(2) This GWQC does not authorize the beginning of any proposed work in the absence of necessary approvals, licenses, or permits.

(3) The applicant shall comply with all conditions of this general certification.

F. Right of Inspection and Department Enforcement.

(1) Reliance on this GWQC by the applicant or the applicant's agent constitutes permission to the Department to inspect at any time the operations and records for any project constructed under the authority of this GWQC.

(2) An activity is authorized by the GWQC as long as compliance with the conditions of the GWQC is maintained. Upon failure to comply with the conditions of this GWQC, the applicant is required to apply for an individual water quality certification.

(3) Legal proceedings may be instituted against the alleged violator in accordance with the provisions of the Environment Article and State Government Article, Annotated Code of Maryland.

Administrative History

Effective date: September 1, 1974 (1:1 Md. R. 33)

COMAR 10.50.01.02, .04, and .03 recodified to COMAR 26.08.02.01, .03, and .04, respectively

Stream Segment Classification Tables codified as Regulation .02

Regulation .01 amended effective April 21, 1978 (5:8 Md. R. 593); July 11, 1980 (7:14 Md. R. 1348); December 3, 1984 (11:24 Md. R. 2070)

Regulation .01D amended effective May 24, 1982 (9:10 Md. R. 1022)

Regulation .01I amended effective June 6, 1983 (10:11 Md. R. 976); December 19, 1983 (10:25 Md. R. 2269)

Regulation .03 amended effective August 3, 1981 (8:15 Md. R. 1308)

Regulation .03A and D amended effective December 19, 1983 (10:25 Md. R. 2269)

Regulation .04B—E amended effective July 28, 1978 (5:15 Md. R. 1187)

Regulation .04 repealed effective July 11, 1980 (7:14 Md. R. 1348)

Regulation .04 adopted effective November 18, 1985 (12:23 Md. R. 2220)

Chapter revised effective June 27, 1988 (15:13 Md. R. 1556)

Regulation .02B amended effective May 1, 1989 (16:8 Md. R. 911); October 30, 1989 (16:21 Md. R. 2263)

Regulation .05A amended effective May 1, 1989 (16:8 Md. R. 911)

Regulation .07A amended effective May 1, 1989 (16:8 Md. R. 911)

Regulation .07G amended effective October 30, 1989 (16:21 Md. R. 2263)

Regulation .08A amended effective May 1, 1989 (16:8 Md. R. 911)

Regulation .08O amended effective October 30, 1989 (16:21 Md. R. 2263)

Regulation .08Q amended effective May 1, 1989 (16:8 Md. R. 911)

Regulation .09D amended effective October 30, 1989 (16:21 Md. R. 2263)

Regulation .10E amended effective February 19, 1990 (17:3 Md. R. 303)

Regulation .11B amended effective February 19, 1990 (17:3 Md. R. 303)

Regulation .12 adopted effective February 19, 1990 (17:3 Md. R. 303)

Regulation .13 adopted effective February 19, 1990 (17:3 Md. R. 303)

Chapter revised effective April 16, 1990 (17:7 Md. R. 854)

Regulation .01B amended effective April 26, 2001 (28:2 Md. R. 101); April 28, 2014 (41:8 Md. R. 474)

Regulation .02A amended effective April 26, 2001 (28:2 Md. R. 101)

Regulation .02B amended effective August 29, 2005 (32:17 Md. R. 1440); April 19, 2010 (37:8 Md. R. 619); April 28, 2014 (41:8 Md. R. 474)

Regulation .02-1 adopted effective August 29, 2005 (32:17 Md. R. 1440)

Regulation .02-1A amended effective April 28, 2014 (41:8 Md. R. 474)

Regulation .02-1F, G amended effective October 31, 2022 (49:22 Md. R. 980)

Regulation .03A amended effective January 2, 1995 (21:26 Md. R. 2195)

Regulation .03B amended effective June 7, 1993 (20:11 Md. R. 917); July 5, 2004 (31:13 Md. R. 995)

Regulation .03-1B amended effective April 9, 2018 (45:7 Md. R. 347)

Regulation .03-2 amended effective January 7, 1991 (17:26 Md. R. 2978); June 7, 1993 (20:11 Md. R. 917); March 25, 1996 (23:6 Md. R. 477); April 26, 2001 (28:2 Md. R. 101); April 19, 2010 (37:8 Md. R. 619)

Regulation .03-2C amended effective July 5, 2004 (31:13 Md. R. 995)

Regulation .03-2G amended effective July 19, 2004 (31:14 Md. R. 1080); November 29, 2010 (37:24 Md. R. 1660); April 28, 2014 (41:8 Md. R. 474); October 31, 2022 (49:22 Md. R. 980)

Regulation .03-2H, I amended effective April 28, 2014 (41:8 Md. R. 474); October 31, 2022 (49:22 Md. R. 980)

Regulation .03-3 amended effective July 5, 2004 (31:13 Md. R. 995); August 29, 2005 (32:17 Md. R. 1440); April 28, 2014 (41:8 Md. R. 474)

Regulation .03-3A amended effective April 9, 2018 (45:7 Md. R. 347)

Regulation .03-3C amended effective April 19, 2010 (37:8 Md. R. 619); November 29, 2010 (37:24 Md. R. 1660); April 2, 2012 (39:6 Md. R. 410); October 31, 2022 (49:22 Md. R. 980)

Regulation .03-3E amended effective October 28, 1991 (18:21 Md. R. 2311)

Regulation .03-3H adopted effective April 19, 2010 (37:8 Md. R. 619)

Regulation .03-4 adopted effective July 19, 2004 (31:14 Md. R. 1081)

Regulation .04 amended effective April 26, 2001 (28:2 Md. R. 101); October 31, 2022 (49:22 Md. R. 980)

Regulation .04A amended effective April 28, 2014 (41:8 Md. R. 474)

Regulation .04C amended effective January 7, 1991 (17:26 Md. R. 2978)

Regulation .04-1 repealed and new Regulation .04-1 adopted effective October 31, 2022 (49:22 Md. R. 980)

Regulation .04-1 adopted effective February 5, 2001 (28:2 Md. R. 104)

Regulation .04-1 recodified to be Regulation .04-2 and new Regulation .04-1 adopted effective July 19, 2004 (31:14 Md. R. 1081)

Regulation .04-1D amended effective November 29, 2010 (37:24 Md. R. 1660)

Regulation .04-1O amended effective November 29, 2010 (37:24 Md. R. 1660); April 28, 2014 (41:8 Md. R. 474); April 9, 2018 (45:7 Md. R. 347)

Regulation .04-2 repealed and new Regulation .04-2 adopted effective October 31, 2022 (49:22 Md. R. 980)

Regulation .04-3 adopted effective October 31, 2022 (49:22 Md. R. 980)

Regulation .05 amended effective June 7, 1993 (20:11 Md. R. 917)

Regulation .05A amended effective July 5, 2004 (31:13 Md. R. 995)

Regulation .05B recodified to Regulation .05-1 effective June 7, 1993 (20:11 Md. R. 917)

Regulation .05D amended effective January 17, 1994 (21:1 Md. R. 34)

Regulation .05-1 amended effective November 29, 2010 (37:24 Md. R. 1660)

Regulation .07 amended effective August 29, 2005 (32:17 Md. R. 1441)

Regulation .07E amended effective April 28, 2014 (41:8 Md. R. 474)

Regulation .07E repealed effective October 31, 2022 (49:22 Md. R. 980)

Regulation .07F, G repealed effective April 28, 2014 (41:8 Md. R. 474)

Regulation .08 repealed and new Regulation .08 adopted effective August 29, 2005 (32:17 Md. R. 1442)

Regulation .08 amended effective April 19, 2010 (37:8 Md. R. 619); April 28, 2014 (41:8 Md. R. 474); April 9, 2018 (45:7 Md. R. 347); October 31, 2022 (49:22 Md. R. 980)

Regulation .08H and J amended effective April 13, 1992 (19:7 Md. R. 747)

Regulation .08J amended effective January 17, 1994 (21:1 Md. R. 34); October 24, 1994 (21:21 Md. R. 1815); May 22, 1995 (22:10 Md. R. 708); July 5, 2004 (31:13 Md. R. 995)

Regulation .08L amended effective November 29, 2010 (37:24 Md. R. 1660)

Regulation .08N amended effective October 28, 1991 (18:21 Md. R. 2311); January 17, 1994 (21:1 Md. R. 34); October 24, 1994 (21:21 Md. R. 1815)

Regulation .08O amended effective January 17, 1994 (21:1 Md. R. 34); May 22, 1995 (22:10 Md. R. 708)

Regulation .08Q amended effective January 17, 1994 (21:1 Md. R. 34); May 22, 1995 (22:10 Md. R. 708)

Regulation .09A amended effective October 20, 1997 (24:21 Md. R. 1453); December 22, 2014 (41:25 Md. R. 1486)

Regulation .09D amended effective January 19, 2004 (31:1 Md. R. 32); May 3, 2010 (37:9 Md. R. 673)

Regulation .10B amended effective February 5, 2001 (28:2 Md. R. 104)

Regulation .11B amended effective April 28, 2014 (41:8 Md. R. 474)

Title 26 DEPARTMENT OF THE ENVIRONMENT

Subtitle 08 WATER POLLUTION

Chapter 03 Discharge Limitations

**Authority: Environment Article, §§9-313—9-316, 9-319, 9-320—9-325, and 9-328,
Annotated Code of Maryland**

.01 Effluent Limitations.

A. Prohibited Discharges. The following discharges to the waters of this State are prohibited:

- (1) The discharge of any wastes or waste waters regardless of volume unless:
 - (a) Authorized by a discharge permit, or
 - (b) Subject to control or modification required by a schedule of compliance established by this State;
- (2) The discharge of any pollutant in toxic amounts including:
 - (a) Substances which accumulate to toxic amounts during the expected life of organisms in the surface water, or
 - (b) Substances which produce deleterious behavioral effects on the organisms;
- (3) The discharge of any radiological, chemical, or biological warfare agent;
- (4) The discharge of any high level radioactive waste;
- (5) Any discharge which would substantially impair anchorage and navigation;
- (6) Any discharge to which the Administrator of the Environmental Protection Agency has objected in writing under the Federal Act;
- (7) Any discharge which is in conflict with a plan approved by this State;
- (8) The discharge of sewage from vessels while moored, berthed, or docked in waters of this State except through a federally and State-approved marine sanitation device;
- (9) The discharge of sewage or other wastes from vessels to the waters of Deep Creek Lake in Garrett County, Maryland; and
- (10) The discharge of sewage from vessels to the waters of this State, designated as restricted zones. These zones shall be designated:
 - (a) Wherever greater environmental protection and enhancement is required, and
 - (b) According to the procedures outlined in the Federal Act.

B. The following areas of the waters of the State are designated as no discharge zones, where the discharge of sewage from marine sanitation devices located on vessels is prohibited:

- (1) The Herring Bay no discharge zone which encompasses all tidal waters of Herring Bay and its tributaries westerly of a line beginning at a point at or near Holland Point defined by Lat. 38°43'34.9" N., Long 76°31'37.3" W., then running approximately 352° (true) to a point at or near Crab Pile A defined by Lat. 38°46'33.0" N., Long. 76°32'10.1" W., then running approximately 354° (true) to a point at or near the north shore of Parker Creek defined by Lat. 38°46'39.1" N., Long. 76°32'10.8" W.
- (2) The Northern Coastal Bays no discharge zone which encompasses all the tidal waters of Ocean City Inlet, Sinepuxent Bay, Isle of Wight Bay, Assawoman Bay, and their tributaries, upstream (West) of a line beginning at a point at or near the east end of the north Ocean City Inlet jetty, defined by Lat. 38°19'27.0" N., Long. 75° 05' 5.5" W., then running approximately 248° (true) to a point at or near the east end of the south Ocean City Inlet jetty, defined by Lat. 38°19'20.7" N., Long. 75°05'24.8" W., and north of a line across the north end of Sinepuxent

Bay beginning at a point at or near the southeast entrance of the Ocean City commercial fish harbor (Swordfish Basin) defined by Lat. 38°19'37.0" N., Long. 75°06'6.0" W., then running approximately 110° (true) to a point at or near the shore at the northwest tip of Assateague Island defined by Lat. 38°19'32.0" N., Long. 75°05'49.0" W., and south of the Maryland-Delaware line beginning at a point at or near the east side of Assawoman Bay defined by Lat. 38°27'4.5" N., Long. 75°04'11.2" W., then running approximately 270° (true) to a point at or near the west side of Assawoman Bay defined by Lat. 38°27'4.4" N., Long. 75°05'09.3" W.

(3) The Chester River no discharge zone, which encompasses all the tidal waters of the Chester River and its tributaries. The delineation will begin at 39°08'54.48" N., 76°16'37.11" W. and extend down to 39°02'23.56" N., 76°18'8.89" W. From there it will continue east throughout any navigable waters, including all tributaries and bays. Included within this zone are Lankford Bay, Corsica River, Southeast Creek, and many smaller tributaries.

(4) The waters of Anne Arundel County in 13 enumerated rivers, coves, and embayments as described in the following table:

Waterbody	Waterbody/Limits	Area (acres)
Stony Creek	39.1723° N, 76.5171° W to 39.1725° N, 76.5126° W	677
Rock Creek	39.1614° N, 76.5004° W to 39.1625° N, 76.4862° W	524
South Shore, Patapsco River	39.1472° N, 76.4589° W to 39.1471° N, 76.4588° W	2
Bodkin Creek	39.1346° N, 76.4398° W to 39.1320° N, 76.4384° W	609
Magothy and Little Magothy Rivers	39.0592° N, 76.4332° W to 39.0462° N, 76.4295° W	5,879
Podickory Creek	39.0328° N, 76.4040° W to 39.0318° N, 76.4049° W	9
Sandy Point/Mezick Ponds	39.0087° N, 76.4032° W to 39.0086° N, 76.4037° W	47
Whitehall Bay	38.9748° N, 76.4547° W to 38.9871° N, 76.4268° W	1,599
Severn River	38.9747° N, 76.4547° W to 38.9411° N, 76.4504° W	7,497
Oyster Creek	38.9274° N, 76.4638° W to 38.9273° N, 76.4634° W	34
Fishing Creek	38.9148° N, 76.4591° W to 38.9073° N, 76.4602° W	228
South River	38.9073° N, 76.4602° W to 38.8850° N, 76.4910° W	5,904

West and Rhode Rivers	38.8850° N, 76.4910° W to 38.8531° N, 76.4959° W	4,370
Total Area		27,379

(5) The provisions in §B(4) of this regulation are effective for all vessels on July 1, 2022, with the exception of United States Coast Guard Inspected Passenger Vessels as defined in 46 CFR Chapter I, Subchapter T, Small Passenger Vessels (Under 100 Gross Tons), for which this regulation will become effective on July 1, 2025.

C. Controlled Discharges.

(1) Discharge Permitted. The discharge of waters, wastes, or wastewaters to the waters of this State is permitted if:

(a) The discharge does not contravene the surface water quality standards established by this State to protect legitimate beneficial water uses;

(b) The discharge complies with the discharge permit requirements for:

- (i) Effluent limitations,
- (ii) Schedules of compliance, and
- (iii) The use of the best available technology;

(c) The discharge is authorized by a discharge permit subject to conditions and restrictions imposed in the permit; or

(d) The discharge is:

(i) Dredge spoil resulting from an effluent returning to the waters of this State from an approved dredge spoils disposal area,

(ii) Material excavated from the sediments underlying surface waters and placed in another part of the water, or

(iii) Material placed in suspension in the water as part of a dredging or construction project authorized by the Department.

(2) Best Available Technology.

(a) Before establishing effluent limitations for any point source, the Department shall give careful consideration to necessary and practicable effluent limitations to achieve compliance with surface water quality standards (COMAR 26.08.02.01—.08) or ground water quality standards (COMAR 26.08.02.09). This consideration shall include:

- (i) Information provided as part of the discharge permit application;
- (ii) Information available from discharge permit monitoring reports; and
- (iii) Any other information provided by the applicant or required by the Department.

(b) Best available technology shall be required as the minimum for all permitted discharges. If it is determined that compliance with the established water quality standards will not be achieved through BAT, additional treatment shall be:

- (i) Required; and
- (ii) Based on waste load allocation.

(3) Nutrient Control. This State recognizes that certain surface waters of this State are eutrophic or are approaching eutrophic conditions. All discharges to these surface waters shall be treated as necessary to reduce eutrophic effects. This State shall require that wastewaters containing nutrients which cause or contribute to eutrophication be:

(a) Given advanced waste treatment before discharge;

(b) Disposed of by spray irrigation on land; or

(c) Disposed of by other practicable procedures which will avoid direct discharge to surface waters.

(4) Use of Material Balance.

(a) The Department may require that the operator of the facility involved conduct a material balance with the accuracy and precision necessary to account for environmentally significant losses of material in any instance when:

(i) Pollution of the waters of this State is likely to occur as a result of discharge or loss of toxic substances; or

(ii) The Department determines the need for materials control to prevent water pollution.

(b) If a material balance is required, the Department shall review and approve:

(i) The procedure to be used;

(ii) The frequency of the determinations;

(iii) The units of measurements;

(iv) The methods of calculations, management, and record; and

(v) Any other specific requirements considered necessary.

(c) Information developed by the operator of a facility as a consequence of making a material balance shall be made available to the Department of the Environment on demand.

.02 Use of Toxic Substances for Aquatic Life Management Purposes.

A. Scope. Any person who adds toxic substances to the waters of this State for aquatic life management purposes shall be governed by this regulation.

B. Restrictions on Use.

(1) Toxic substances may not be applied to, discharged to, or deposited in the waters of this State in any way unless:

(a) The application, discharge, or deposit meets all of the requirements imposed by this regulation; and

(b) Approval is given in accordance with this regulation.

(2) The mixing, handling, or transfer of toxic substances or the washing of or cleaning operations for toxic substance containers or equipment may not result in any way in:

(a) Application to the waters of this State;

(b) Discharge to the waters of this State;

(c) Deposition in the waters of this State.

(3) Wastes and wastewaters from the washing of toxic substance containers or equipment may not be discharged to or permitted to flow into:

(a) Subsurface drainage or disposal systems;

(b) Municipal sanitary sewerage systems; or

(c) Storm water drainage systems.

(4) The toxic substances used shall be adequately controlled and sufficiently selective so as not to adversely affect:

(a) Desirable species of aquatic life in the designated areas to be treated; or

(b) Any aquatic life outside the designated area to be treated.

C. Procedure for Obtaining Approval.

(1) Permits for the use of toxic substances in the waters of this State shall be requested from the Department at least 30 days before the initiation of every aquatic life management project employing the application, discharge, or deposit of toxic substances.

(2) Application for permit shall include the following information for each project:

(a) The purpose of the project;

(b) A description and maps or drawings of the area involved;

(c) A description of the watershed upstream and downstream from the project, or the tidal area around the project;

(d) A description of the toxic substance to be used;

(e) A description of the method of application;

(f) Name, title, and address of the person in charge of the project;

(g) A description of safeguards to be used;

(h) The approximate dates of the project operation;

(i) A statement outlining methods to be used in the cleanup of the area following the application, discharge, or deposit of the toxic substances; and

(j) Any other information the Department of the Environment requires for the proper evaluation of the project.

(3) The Department of the Environment may authorize the Chairman of the Soil Conservation District, or his designee approved by the Department to issue an emergency permit for use of toxic substances for aquatic life management purposes. These emergency permits shall only be issued in accordance with the following guidelines:

(a) An emergency permit shall only be issued when, in the opinion of the Soil Conservation District (SCD) representative, a situation exists which requires rapid or immediate attention to prevent:

(i) Degradation of water quality; or

(ii) Development of a situation requiring more extensive treatment at a later date.

(b) Emergency permits shall:

(i) Be restricted to a maximum of two applications of a toxic substance; and

(ii) Only authorize use of copper sulfate, cutrine or diquat, unless specific written authorization is received from the Department.

(c) An emergency permit form provided by the Department shall be used for issuance of emergency permits. A copy of the executed permit shall then be forwarded to the Department.

(d) Emergency permits may only be issued during the time period from May 1 to September 30.

(e) Emergency permits may not be issued if the pond or body of water is tributary to a public water supply, or tributary to shellfish waters.

D. A person who discharges toxic substances to waters of the State is not required to obtain a permit under this regulation if the person is covered under a discharge permit issued under COMAR 26.08.01—.04 that incorporates the requirements of §§B and C(1) and (2) of this regulation.

.03 Water Quality Impact Assessment for Thermal Discharges.

A. Purpose. This regulation specifies procedures for compliance with Maryland water quality standards for thermal discharges and describes the factors, criteria, and standards for the establishment of alternate thermal effluent limitations under the Federal Act, §316(a), in permits issued under the Environment Article, Title 9, Subtitle 3, Annotated Code of Maryland, and this chapter.

B. Definition. For purposes of this regulation only, "significant" means having a statistically measurable effect beyond the mixing zone.

C. Control of Thermal Discharges.

(1) The mixing zone for thermal discharges shall be 50 feet radially from the point of discharge.

(2) The Department may establish a mixing zone of different size or shape on a case-by-case basis.

(3) Thermal discharges shall be controlled so that the:

(a) Temperature outside the applicable mixing zone meets the applicable water quality criteria specified in COMAR 26.08.02.03-3; or

(b) Discharges comply with the thermal mixing zone criteria in §D of this regulation.

(4) Request for Alternate Thermal Effluent Limitations.

(a) Dischargers who are unable to meet the requirements of either §C(3)(a) or (b) of this regulation may request alternate thermal effluent limitations as provided in §E of this regulation.

(b) A new request for alternate thermal effluent limitations shall be made within 180 days of notification by the Department that the discharger's thermal discharge cannot assure protection of a balanced indigenous community of shellfish, fish, and wildlife in and on the body of water into which the discharge is made. This request shall include a completed demonstration or a study plan for a demonstration to show compliance with §E of this regulation.

(c) A request for renewal of alternate thermal effluent limitations shall be made at the same time that the application for the renewal of the existing State discharge permit is made. This request for the renewal of existing alternate thermal effluent limitations shall include a summary of the basis for granting the alternate thermal effluent limitations and subsequent data, if any, to show that the thermal discharge effluent limitations are more stringent than necessary to protect a balanced indigenous community of shellfish, fish, and wildlife in and on the body of water into which the discharge is made. In addition, the application shall provide any other pertinent information which the Department requests within 60 days after receipt of the permit application.

(5) Alternate effluent limitations are approved only for the term of a specific State discharge permit. When renewing that State discharge permit, the discharger shall be prepared to demonstrate that continuation of the alternate effluent limitations is appropriate.

D. Thermal Mixing Zone Criteria.

(1) Requirements for Discharges to Tidal Waters.

(a) The 24-hour average of the maximum radial dimension measured from the point of discharge to the boundary of the full capacity 2°C above ambient isotherm (measured during the critical periods) may not exceed 1/2 of the average ebb tidal excursion.

(b) The 24-hour average full capacity 2°C above ambient thermal barrier (measured during the critical periods) may not exceed 50 percent of the accessible cross section of the receiving water body. Both cross sections shall be taken in the same plane.

(c) The 24-hour average area of the bottom touched by waters heated 2°C or more above ambient at full capacity (measured during the critical periods) may not exceed 5 percent of the bottom beneath the average ebb tidal excursion multiplied by the width of the receiving water body.

(2) Requirements for Discharges to Nontidal Waters.

(a) The distance downstream from the point of discharge to the 24-hour average 2°C above ambient isotherm at full capacity may not exceed the distance traveled in 6 hours by the receiving stream. Both distances shall be measured during the critical periods.

(b) The 24-hour average full capacity 2°C above ambient thermal barrier (measured during the critical periods) may not exceed 50 percent of the accessible cross section of the receiving body. Both cross sections shall be taken in the same plane.

(c) The area of the bottom touched by waters heated 2°C or more above ambient at full capacity may not exceed 5 percent of the stream bottom passed over by the stream flowing for 6 hours. Both areas shall be measured during the critical periods.

E. Establishment of Alternate Effluent Limitations.

(1) Thermal discharge effluent limitations or standards established in permits may be less stringent than those required by applicable standards and limitations if the discharger demonstrates to the satisfaction of the Department that the effluent limitations or standards are more stringent than necessary to assure the protection and propagation of a balanced, indigenous community of shellfish, fish, and wildlife in and on the body of water into which the discharge is made. This demonstration shall show that the alternate effluent limitation desired by the discharger, considering the cumulative impact of its thermal discharge together with all other significant impacts on the species affected, including impingement and entrainment impacts, will assure the protection and propagation of a balanced indigenous community of shellfish, fish, and wildlife in and on the body of water into which the discharge is to be made.

(2) In determining whether the protection and propagation of the affected species will be assured, the Department may consider any information contained or referenced in any applicable thermal water quality criteria and thermal water quality information published by the Environmental Protection Agency under the Federal Act, §304(a), or any other information considered relevant by the Department. The demonstration shall include evidence for the lack of the following factors:

(a) A significant increase in abundance or distribution of any species considered to be nuisance species by the Department of the Environment;

(b) A significant change in biological productivity;

(c) A significant elimination or impairment of economic and recreational resources; and

(d) A significant reduction in the successful completion of the life cycle of representative important species (RIS).

(3) Existing dischargers may base their demonstration upon the absence of prior appreciable harm instead of predictive studies. Demonstrations shall show that:

(a) Appreciable harm has not resulted from the thermal component of the discharge, taking into account the interaction of the thermal component with other pollutants and the additive effect of other thermal sources, to a balanced, indigenous community of shellfish, fish, and wildlife in and on the body of water into which the discharge has been made; or

(b) Despite the occurrence of the previous harm, the desired alternate effluent limitations, or appropriate modifications of them, will nevertheless assure the protection and propagation of a balanced, indigenous community of shellfish, fish, and wildlife in and on the body of water into which the discharge is made.

(4) In determining whether prior appreciable harm has occurred, the Department shall consider the length of time in which the applicant has been discharging and the nature of the discharge.

(5) If a discharger fails to demonstrate that existing facilities, or alternate effluent limitations together with all other impacts, will assure the protection and propagation of a balanced indigenous population of shellfish, fish, other aquatic life, or wildlife in and on the receiving water, then the discharger shall make changes in facility processes or operations, or both, sufficient to assure the protection and propagation of a balanced indigenous population of shellfish, fish, other aquatic life, or wildlife in and on the receiving water.

.04 Representative Important Species.

Representative important species (RIS) are those species selected by the applicant and approved by the Department that exhibit one or more of the following characteristics:

- A. Species that are sensitive to adverse harm from operations of the facility (for example, heat-sensitive species);
- B. Species that use the local area as spawning or nursery grounds, or both, including those species that migrate past the facility to spawn;
- C. Species of commercial or recreational value, or both;
- D. Species that are habitat formers and are critical to the functioning of the local ecosystem;
- E. Species that are important links in the local food web;
- F. Rare, threatened, or endangered species;
- G. Potential nuisance organisms likely to be enhanced by plant operations.

.05 Cooling Water Intake Structures.

A. The location, design, construction, and capacity of cooling water intake structures shall reflect the best technology available (BTA) for minimizing adverse environmental impact.

B. The determination of BTA for minimizing adverse environmental impact shall consider the effect of:

- (1) Impingement loss as determined in §D of this regulation; and
- (2) Entrainment loss as determined in §E of this regulation.

C. Unless otherwise directed by the Department, cooling water intake structures withdrawing less than 10,000,000 gallons per day from surface waters are excluded from the requirements of this regulation if the volume of water is less than 20 percent of the:

- (1) Design stream flow for nontidal waters; or
- (2) Annual average net flow past the point of discharge which is available for dilution for tidal waters.

D. Determination of Impingement Loss.

(1) The value of the impingement species destroyed by the intake structure shall be determined by estimating the number of each species destroyed and multiplying by the values listed in COMAR 08.02.09.01. These factors shall be weighted by multiplying by the following adjustment factor:

Species Function Factor

- (a) Recreational only ----- 1.0;
- (b) Commercial and recreational ----- 1.0;
- (c) Commercial only ----- 1.0;
- (d) Commercial, recreational, and forage ----- 0.8;
- (e) Commercial and forage ----- 0.75;
- (f) Recreational and forage ----- 0.75;
- (g) Forage ----- 0.75.

(2) Dischargers shall install and operate functional modifications to mitigate impingement loss, provided that the additional cost of installation of modifications to intake structures and of operation modifications over a 5-year period does not exceed 5 times the estimated annual value of impingement loss. These approved modifications shall be defined as BTA under §B(1) of this regulation.

E. Determination of Entrainment Loss.

(1) Definition. For purposes of this regulation only, "significant" means having a statistically measurable effect beyond the mixing zone.

(2) The discharger shall determine the extent of cooling water entrainment loss on a spawning or nursery area of consequence for RIS as defined in Regulation .04 of this chapter.

(3) If entrainment loss results in significant adverse environmental impact, the discharger shall install and operate functional modifications to mitigate entrainment loss. These approved modifications shall be defined as BTA under §B(2) of this regulation.

.06 Chlorine Discharges.

A. Biocide Residual Levels. Biocide residual levels shall be controlled in the effluents discharged to all surface waters of this State.

B. Use Designations III and III-P.

(1) Except as provided in §B(2) of this regulation, the Department may not issue a permit allowing the use of chlorine or chlorine-containing compounds in the treatment of wastewaters discharging to Use III and Use III-P waters.

(2) Chlorine or chlorine-containing compounds may be used in the treatment of wastewaters discharged to Use III and Use III-P waters if the treatment includes dechlorination to a level set by the Department, and if the sewage treatment facility:

(a) Discharges an amount of treated sewage that is less than 1 percent of the 7-day, 10-year low flow of the receiving stream; or

(b) Was in existence on July 1, 1981, is owned or operated by a local subdivision, is required to convert from the use of chlorination to another system in order to be permitted under this regulation, and matching federal funds are not available to make the conversion.

(3) When an effluent discharged to a Use III or Use III-P water contains chlorine or chlorine-containing compounds which did not originate in the treatment of wastewater, the Department shall require dechlorination, where appropriate, to a level established under §D of this regulation.

C. All Other Water Use Designations. A person may not discharge any chlorine or chlorine products into Use I, I-P, II, IV, or IV-P waters of this State in excess of the limits set forth below:

(1) For steam electric power stations using once-through cooling water from plants with total rated generating capacity of 25 or more megawatts, the limit shall be 0.2 milligram/liter daily maximum of total residual chlorine as determined using the amperometric titration method;

(2) For steam electric power stations using once-through cooling water from plants with total rated generating capacity of less than 25 megawatts, the limit shall be 0.2 milligram/liter monthly average and 0.5 milligram/liter daily maximum of free available chlorine as determined using the amperometric titration method;

(3) The limit for cooling tower blowdown from steam electric generating plants shall be 0.2 milligram/liter monthly average and 0.5 milligram/liter daily maximum of free available chlorine as determined using the amperometric titration method;

(4) For any other discharge category for which the EPA has published effluent limitation guidelines, the limit shall be the limits specified in the published guidelines;

(5) For all other dischargers, including sewage treatment works, the limit shall be the nondetectable level.

D. Nondetectable Level. The nondetectable level shall be less than 0.1 milligram/liter as determined using either the DPD titrimetric or colorimetric method or an alternative method approved by the Department.

E. Natural Constituents. The Department may make an exception to the requirements of this regulation if the chlorine or chlorine products are natural constituents of the intake water.

F. Dechlorination. Dechlorination may be accomplished by:

- (1) Chemical addition;
- (2) Absorption onto activated carbon;
- (3) Control of discharge rates or holding of the effluent so that chlorine residuals are reduced to the nondetectable level; or
- (4) Any other method approved in advance by the Department.

.07 Control of the Discharge of Toxic Substances to Surface Waters.

A. General.

(1) The Department shall adopt toxic substance criteria for any substance that the Department determines could reasonably be expected to interfere with designated uses.

(2) If a discharge of a toxic substance not identified in COMAR 26.08.02 occurs, the Department may:

(a) Adopt a water quality criterion for the toxic substance in accordance with the emergency regulation procedure under State Government Article, Annotated Code of Maryland;

(b) Ban the discharge of the toxic substance under the general authorities in Environment Article, Title 9, Annotated Code of Maryland;

(c) Modify any existing discharge permit to include a limitation for the toxic substance, or deny any new discharge permit until the Department determines the effect of the discharge;

(d) Require biomonitoring and chemical testing by any discharger to demonstrate the impact of a toxic substance in the surface water; or

(e) Take any other action permitted by applicable law.

(3) Compliance with permit limits based on toxic substance criteria shall be determined through application of a standard method accepted by the Department for the measurement of the toxic substance.

B. Effluent Limitation Modification for Toxic Substances.

(1) The Department may, upon written application from the applicant for a discharge permit, grant a temporary modification from one or more effluent limitations based on water quality criteria for toxic substances.

(2) A temporary modification may be granted for a period up to 3 years.

(3) In order to receive any temporary modification of a water quality based effluent limit, an applicant shall identify and employ all reasonable alternatives to reduce or eliminate toxicity in the discharge, including process changes, materials substitution, improved operation and maintenance, recycling, and pollution prevention activities.

(4) At the time of application for a temporary modification, the applicant shall provide to the Department all the necessary supporting data and information. If the Department needs additional information, the applicant shall bear the burden of generating that information.

(5) An application for a temporary modification shall identify the specific effluent limitation in the NPDES permit for which a temporary modification is sought, and shall demonstrate that at least one of the following factors is met:

(a) Naturally occurring pollutant concentrations prevent the attainment of the use;

(b) Natural, ephemeral, intermittent, or low flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating State water conservation requirements to enable uses to be met;

(c) Human-caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied, or would cause more environmental damage to correct than to leave in place;

(d) Dams, diversions, or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the water body to its original condition or to operate these modifications in a way that would result in the attainment of the use;

(e) Physical conditions related to the natural features of the water body, such as the lack of proper substrate, cover, flow, depth, pools, riffles, and similar conditions unrelated to water quality, preclude attainment of aquatic life protection uses; or

(f) Controls more stringent than those required by §§301(b) and 306 of the Federal Act would result in substantial and widespread economic and social impact.

(6) A temporary modification may be renewed for one or more periods up to 3 years each, upon written application and demonstration that the applicant meets the requirements for a temporary modification at the time of renewal.

(7) Opportunity for public participation shall be provided in accordance with the NPDES permitting process as described in COMAR 26.08.04.

C. Criteria for Toxic Substances. The criteria for toxic substances in ambient water are found in COMAR 26.08.02.03—.03-3.

D. Applicability to Dischargers.

(1) Dischargers Required to Conduct Monitoring for Toxic Substances. The Department shall require any permittee who has a discharge that falls into one of the following categories to perform biological or chemical monitoring for toxic substances:

(a) A POTW with a pretreatment program established in accordance with COMAR 26.08.08;

(b) An industrial discharger or POTW treatment plant with a wastewater flow greater than or equal to 1,000,000 gallons per day;

(c) A discharger whose discharge has demonstrated actual or potential toxicity; or

(d) A discharger whose discharge the Department has reason to believe may cause toxicity as determined by an evaluation of manufacturing processes, indirect discharges, treatment processes, effluent or receiving water data, or other relevant information.

(2) NPDES Permit Monitoring Requirements.

(a) A discharger identified in §D(1) of this regulation shall have requirements for toxic substance monitoring included in its permit at the time of permit issuance or reissuance.

(b) Modifications to these requirements may be allowed on a case-by-case basis if the:

(i) Specific conditions of the discharge suggest that a full scale toxics monitoring program is not necessary; or

(ii) Characteristics of the receiving water indicate that a full scale toxics monitoring program is not needed.

(c) Data submitted under any previous toxic substance monitoring program may be used to satisfy these requirements if the data is indicative of the current process and treatment conditions.

(d) Any toxic substance monitoring, including test protocols, shall be approved by the Department before initiation of the testing. All data generated shall be within the quality assurance and quality control specifications of the test protocol.

(e) Measurements below the minimum level may be reported as BML (below minimum level).

(f) If the Department determines through the monitoring described in §D(1) of this regulation, that a discharge causes or has the potential to cause the discharge of toxic substances or an impact on surface waters, the Department may modify the discharge permit to require the discharger to collect data to verify or rule out the existence of an impact from a toxic substance.

E. Technology-Based Whole Effluent Toxicity Testing Requirements.

(1) Purpose. Acute and chronic biotoxicity testing of effluents is used by the Department to assess the potential for acute and chronic toxicity in wastewater discharges.

(2) Permittee Responsibility. A finding of no toxicity in the effluent does not relieve the permittee from the obligation to provide best available treatment technology or to comply with water quality standards for conventional and toxic substances.

(3) Testing Required. The Department shall require biotoxicity testing in all new or renewed discharge permits for permittees identified in §D of this regulation.

(4) Acute Whole Effluent Toxicity.

(a) For the purpose of this subsection, an effluent is acutely toxic when the LC_{50} value resulting from the first 48 hours of a valid acute or chronic toxicity test is less than or equal to 100 percent effluent. LC_{50} means the effluent concentration at which 50 percent of the organisms die or are immobilized during the test.

(b) Each test shall be conducted using at least two species, one vertebrate and one invertebrate, as specified by the Department. Each test shall be conducted in accordance with the procedures specified by the Department.

(c) Unless otherwise specified in an existing permit, if the results for the first 48 hours of any two consecutive valid acute or chronic toxicity tests conducted within any 12-month period show acute toxicity under §E(4)(a) of this regulation, the permittee shall repeat the test within 30 days to confirm the finding of acute toxicity.

(d) One toxicity test shall be differentiated from another by the date on which the effluent was sampled, not by the number of species tested.

(e) If acute toxicity is confirmed, the permittee shall:

(i) Eliminate the source of toxicity through operational changes; or

(ii) Perform a toxicity reduction evaluation as specified within a defined compliance schedule.

(f) If the permittee repeats toxicity testing under §E(4)(c) of this regulation and the results for the first 48 hours of the repeat test do not show acute toxicity, the Department will require the permittee to repeat toxicity testing as specified in the permit.

(5) De Minimis Discharges. For categories, other than those identified in §D(1) of this regulation, of similar discharges that individually or cumulatively will have a de minimus impact on water quality, the Department may permit testing of representative discharges instead of requiring each permittee to test its effluent for whole effluent toxicity. In these

circumstances, the Department shall impose conditions on the permittees relieved of the burden of whole effluent toxicity testing, to ensure that their effluents remain similar to those of the tested permittees.

.08 Remining.

A. Purpose. This regulation establishes the criteria under which the Department shall determine:

(1) That an application for a coal remining NPDES permit has the potential to improve water quality as required under §301 of the Federal Water Pollution Control Act (33 U.S.C. §1311);

(2) If an applicant for an NPDES permit to discharge pollutants from coal remining qualifies for a variance from the State water quality standards; and

(3) The appropriate effluent limitations for pH, iron, and manganese and other requirements in any NPDES permit issued for coal remining at a specific site.

B. Application for NPDES Coal Remining Permit.

(1) Application Requirements. The applicant shall comply with all permit application requirements as set forth in COMAR 26.08.04.

(2) Required Documentation. The applicant shall:

(a) Submit documentation from the Bureau of Mines that the proposed coal remining operation will be located on a remined area;

(b) Certify that the proposed coal remining operation will be confined to the remined area;

(c) Submit the application for a remining permit from the Bureau of Mines;

(d) Describe the hydrologic balance for the proposed coal remining operation, including results of a detailed water quality and quantity monitoring program conducted in accordance with §B(4) of this regulation;

(e) Submit plans, cross sections, and schematic drawings describing the techniques for handling acid-forming materials to reduce the discharge of acidity, iron, and manganese;

(f) Submit a description and an explanation of the range of abatement levels that probably can be achieved, costs, and each step proposed to reduce the discharge of acidity, iron, and manganese;

(g) Submit a description of the spoil-handling practices necessary to reduce the discharge of acidity, iron, and manganese;

(h) Submit a detailed topographic map of the proposed coal remining operation, including the locations of the preexisting and proposed discharges; and

(i) Continue the water quality and quantity monitoring program described in §B(4) of this regulation on a quarterly basis, and submit the results to the Department on a quarterly basis until the Department makes a final permit decision.

(3) When any of the information required in §B(2)(d)----- (h) of this regulation is contained in the information included as part of §B(2)(c), the applicant does not need to provide separate documentation.

(4) Baseline Sampling Data.

(a) The baseline sampling data is derived by sampling and analysis of all preexisting discharges from the coal remining area and in-stream water quality upstream and downstream of the proposed coal remining site. The data shall be collected in a detailed

water quality and quantity monitoring program which includes the requirements listed below and has been approved by the Department.

(b) Sampling points should be established at convenient locations as near to the source as possible. Sampling points shall be established through an on-site visit by the Maryland Department of the Environment permit writer and the applicant. In the event of disagreement concerning the location of the sample site, the final decision shall be made by the Department.

(c) When flows from preexisting multiple effluent discharges converge at convenient sampling points, composite sampling and analysis may be appropriate.

(d) Each sample shall be measured for flow (million gallons/day) and analyzed for the best professional judgement (BPJ) parameters of acidity (milligrams/liter), iron (milligrams/liter) and manganese (milligrams/liter). Iron and manganese concentrations shall be in terms of total metal concentrations.

(e) In addition to the BPJ parameters discussed above, the baseline sampling and analysis data shall include an analysis for parameters including pH, total suspended solids (milligrams/liter), alkalinity (milligrams/liter), specific conductance (millimhos/centimeter), and sulfates (milligrams/liter) for surface water.

(f) Sampling shall occur, at a minimum, over a 12-month period, with samples being taken monthly at regular intervals (for example, every first Monday, or the 15th of each month) from both the effluent discharge and in-stream sampling sites. The 12 sampling and analysis events shall constitute the minimum baseline sampling data.

(5) Common Treatment Facilities.

(a) If the applicant proposes to use common facilities to manage stormwater and remining flows, the applicant shall include in the applicant's application:

- (i) The location of each common facility;
- (ii) The source and volume of each discharge entering the common facility; and
- (iii) Any other information the Department may require.

(b) The applicant may not use a common facility to manage remining and stormwater flows without the written consent of the Department.

C. Issuance of NPDES Coal Remining Permit.

(1) Prohibitions. The Department may not issue an NPDES permit for a coal remining activity unless:

- (a) The applicant has applied for a coal remining permit from the Bureau of Mines;
- (b) The coal remining operation is located on a site on which coal mining was conducted before August 3, 1977;
- (c) The applicant demonstrates to the satisfaction of the Department that the mining and reclamation procedures proposed for the site of the coal remining operation have the potential to improve water quality in the preexisting discharges based on a hydrologic reclamation plan and a probable hydrologic consequences statement;
- (d) The Department determines, based on the proposed hydrologic reclamation plan, that the coal remining activity is not likely to cause discharges of pH, iron, or manganese

which exceed the levels established as the baseline loading in the preexisting discharges at the site before the coal remining operation began; and

(e) The information provided in the application is adequate for the Department to make an informed final permit decision.

(2) Best Professional Judgement (BPJ) Limits for pH, Iron, and Manganese. When the Department issues an NPDES permit to discharge pollutants from a coal remining operation based upon the variance to State water quality standards described under COMAR 26.08.02, the water quality-based effluent limitations for pH, iron, and manganese shall be established on a case-by-case basis. Compliance with those effluent limitations constitutes compliance with those water quality criteria for pH, iron, and manganese set forth in COMAR 26.08.02.

(3) Best Professional Judgement Limits (BPJ) Derivation. The modified effluent limits shall be derived through a BPJ methodology developed by the Department.

(4) Permit Release Limit. This limit is derived by calculating the cumulative loading rate in tons/year of acidity, iron, and manganese from each concentration value and flow rate in the baseline data for the entire coal remining site. The cumulative loading rates for each parameter are summed and divided by the number of samples analyzed. This number is multiplied by 365 to establish the annual cumulative baseline loading rate for each parameter.

D. Monitoring.

(1) Monitoring at the coal remining operation may be discontinued after the sampling required by §B(4) of this regulation is completed. The monitoring shall begin again, in accordance with the NPDES coal remining permit, upon initiation of remining operations.

(2) During the coal remining operation, monitoring of the parameters established in §B(4)(d) of this regulation shall be conducted at least quarterly for the ambient in-stream stations.

(3) During the coal remining operation, monitoring for all effluent discharges shall be conducted at least monthly for pH, iron, manganese, acidity, and total suspended solids.

(4) The permittee shall submit the compliance monitoring data to the Department at least quarterly in the manner and form required by the Department.

E. Newly Discovered Discharges. An applicant with an existing coal remining operation seeking an NPDES permit modification from the Department under COMAR 26.08.04 to accommodate a newly discovered discharge shall demonstrate to the satisfaction of the Department that the applicant:

(1) Discovered discharges within the proposed coal remining area after the applicant's NPDES permit was issued; and

(2) Has not caused or contributed to the discharges.

F. Final Monitoring.

(1) Upon completion of the coal remining activity and before release from permit obligations, the permittee shall:

(a) Demonstrate that the annual cumulative baseline loading set forth in the NPDES permit has not been exceeded, and that the water quality discharged from the site has been improved; and

(b) Compile the water quality information into a final report which shall analyze the data and document any changes in water quality in the stream.

(2) The demonstration required in §F(1)(a) of this regulation shall be based on 1 year of monthly sampling and analyses of untreated discharge collected in the second year following the completion of reclamation and revegetation, and shall be calculated in accordance with §C(4) of this regulation.

(3) Failure to demonstrate that the water quality from the site has improved shall constitute a violation requiring corrective action.

.09 Animal Feeding Operations.

A. Animal Feeding Operation Size Categories.

(1) A large, medium, or small AFO is an AFO housing the number of animals or with the total house capacity identified in the column labeled large, medium, or small, respectively, in Table 1.

(2) The number of animals or, for dry manure chicken operations, house capacity shall be based on:

(a) The total at the site; or

(b) For adjacent sites involving any common ownership or operation, the combined total of all sites where the production, manure management, or storage operations are collectively owned or managed.

(3) Table 1. Small, Medium, and Large AFO Size Categories.

	Size Category—Number of Animals or Total House Capacity (square feet)		
Animal Type	Large—greater than or equal to	Medium	Small—less than
Cattle (includes heifers)	1,000 animals	300—999 animals	300 animals
Dairy cattle	700 animals	200—699 animals	200 animals
Horses	500 animals	150—499 animals	150 animals
Veal	1,000 animals	300—999 animals	300 animals
Swine greater than 55 pounds	2,500 animals	750—2,499 animals	750 animals
Swine less than 55 pounds	10,000 animals	3,000—9,999 animals	3,000 animals
Sheep/lambs	10,000 animals	3,000—9,999 animals	3,000 animals
Ducks with liquid manure handling	5,000 animals	1,500—4,999 animals	1,500 animals
Chickens with liquid manure handling	30,000 animals	9,000—29,999 animals	9,000 animals
Ducks with dry manure handling	30,000 animals	10,000—29,999 animals	10,000 animals
Laying hens with dry manure handling	82,000 animals	25,000—81,999 animals	25,000 animals

Chickens (other than laying hens) with dry manure handling	125,000 animals or 100,000 square feet	37,500—124,999 animals and less than 100,000 square feet	37,500 animals
Turkeys	55,000 animals	16,500—54,999 animals	16,500 animals

B. Concentrated Animal Feeding Operations.

(1) For AFOs that are defined or designated as CAFOs under the federal regulations, at 40 CFR 122.23, as amended, the requirements of the federal regulations applicable to concentrated animal feeding operations at 40 CFR Parts 122 and 412, as amended, are incorporated by reference with the following changes:

(a) The terms "Director" and "State Director" mean the Secretary of the Environment or the Secretary of the Environment's designee;

(b) The size threshold for defining a large dry manure chicken (other than laying hens) AFO is 125,000 chickens or a total house capacity of greater than or equal to 100,000 square feet;

(c) An AFO that is a large or medium CAFO under federal regulations is also subject to the permit requirements for a CAFO under Maryland regulations only if it discharges or proposes to discharge;

(d) An AFO that is a large CAFO under federal regulations that does not discharge or propose to discharge is subject to the requirements for a MAFO under the Maryland regulations.

(2) The Department may designate a small AFO as a CAFO after a site inspection, if:

(a) Animal waste comes into contact with surface water; or

(b) Animals come into contact with surface water and the AFO is not using best management practices designed and approved by the soil conservation district (SCD) to limit animal access to surface water.

(3) A CAFO shall obtain permit coverage under the general discharge permit issued by the Department under COMAR 26.08.04.09N unless the Department, in its discretion, notifies the discharger that a separate discharge permit is required.

C. Maryland Animal Feeding Operations.

(1) A MAFO shall obtain permit coverage under the general discharge permit issued by the Department under COMAR 26.08.04.09N, unless the Department, in its discretion, notifies the discharger that a separate discharge permit is required.

(2) The Department may designate as a MAFO a small or medium AFO if the Department determines that the type or location of animal waste storage or animal access to surface water is likely to cause a discharge of pollutants to ground or surface waters of this State.

(3) A permitted MAFO upon closure of the facility shall maintain permit coverage until all animals and animal waste that were present while the operation was a MAFO are removed from the site.

(4) The deadline for a MAFO to submit an application for an individual permit or an NOI for a general discharge permit shall be in accordance with the schedules for NOIs specified in the general permit for AFOs issued under COMAR 26.08.04.09N.

(5) Effluent Limitations for MAFOs.

(a) MAFO permits shall at a minimum include requirements and schedules for development, submission to the Department, and implementation of a complete and current NMP and conservation plan.

(b) The terms of the NMP shall be consistent with the terms of the conservation plan and, together with the conservation plan, shall:

(i) Take into account all animal waste from the management of animals or their manure and associated waste nutrients; and

(ii) Ensure that appropriate manure management measures are used to store, stockpile, and handle manure and animal waste to minimize the potential for nutrient loss or runoff.

(c) Except for storm water that comes into contact with animal waste that is land applied in accordance with a NMP, discharge of animal waste to surface waters of this State is prohibited.

(6) A facility's status as a MAFO does not require, and the permit authorization for a MAFO does not confer, NPDES discharge permit authorization under the Federal Act.

D. The Department may require an AFO owned or operated outside of Maryland to obtain a discharge permit if all or a significant part of its operation, whether waste storage, waste application, or confinement of animals, is conducted in Maryland.

E. An AFO, regardless of size, that utilizes a spray irrigation system for wastewater application shall be regulated under either a general or individual discharge permit.

Administrative History

Effective date: September 1, 1974 (1:1 Md. R. 33)

COMAR 10.50.01.05, .06, and .13 recodified to COMAR 26.08.03.01, .02, and .03, respectively

Regulation .01 amended effective November 5, 1984 (11:22 Md. R. 1899)

Regulation .02 amended effective November 5, 1984 (11:22 Md. R. 1899)

Regulation .02C amended effective May 18, 1979 (6:10 Md. R. 841)

Regulation .03 adopted effective May 19, 1978 (5:10 Md. R. 777)

Chapter revised effective June 27, 1988 (15:13 Md. R. 1556)

Regulation .01 amended effective May 27, 2002 (29:10 Md. R. 827)

Regulation .01A amended effective September 28, 2015 (42:19 Md. R. 1229)

Regulation .01B amended effective April 16, 1990 (17:7 Md. R. 854); May 17, 2021 (48:10 Md. R. 402); May 30, 2022 (49:11 Md. R. 610)

Regulation .02 amended effective April 16, 1990 (17:7 Md. R. 854)

Regulation .02D adopted effective April 23, 2018 (45:8 Md. R. 422)

Regulations .03—.05 repealed and new Regulations .03—.05 adopted effective February 19, 1990 (17:3 Md. R. 301)

Regulation .03C amended effective July 5, 2004 (31:13 Md. R. 995)

Regulation .06 adopted effective May 1, 1989 (16:8 Md. R. 911)

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Regulation .09 adopted effective January 12, 2009 (36:1 Md. R. 24)

Regulation .09F repealed effective June 18, 2018 (45:12 Md. R. 619)

Title 26 DEPARTMENT OF THE ENVIRONMENT

Subtitle 08 WATER POLLUTION

Chapter 04 Permits

**Authority: Environment Article, §§1-601—1-606, 9-313, 9-315, 9-323—9-328, and
9-330, Annotated Code of Maryland**

.01 Discharge Permits Required.

A. Issuance of Discharge Permits. The Department shall issue State discharge permits or NPDES permits in accordance with provisions and conditions of COMAR 26.08.01—26.08.04 and 26.08.08, to satisfy the regulatory requirements of the National Pollutant Discharge Elimination System (NPDES), established under the Federal Act.

B. Activities for Which Discharge Permits Are Required. A person may not commit any of the following acts except as authorized by a discharge permit issued by the Department:

(1) Except as provided in COMAR 26.08.02.09A(3) and Regulation .08 of this chapter, discharge into the waters of this State any waste or wastewater regardless of volume.

(2) Construct, install, modify, extend, alter, or operate any system for the disposal of waste or wastewater into the waters of the State, or a system which may result in a discharge into these waters, regardless of quality or volume, with the exception of storm water runoff that is not regulated under the Federal Act.

(3) Increase or otherwise modify in volume, temperature, or concentration, any existing waste or wastewater in excess of the discharges authorized by any existing discharge permit. To the extent that the modification is in excess of limits specified in a discharge permit, the permittee shall report the change to the Department within 1 week of the commencement of the modification. This report shall include information on what, how, and why modifications were made and whether they will be temporary or permanent.

(4) Construct, install, or operate any industrial, commercial, or other establishment or any extension or modification or addition to them, including the construction or use of any new discharge outlet, the construction, installation, or operation of which would cause an increase in the discharge of waste or wastewater into the waters of the State or otherwise alter the physical, chemical, or biological properties of any waters of the State in any manner not lawfully authorized.

.01-1 Discharge Permit Application.

A. Application Required.

(1) Persons engaged or planning to engage in activities requiring a discharge permit shall file a complete application:

(a) Not less than 180 days in advance of the date on which the discharge permit is desired to commence the activities; and

(b) In sufficient time before the commencement of activities to ensure compliance with provisions of appropriate State and federal laws and regulations.

(2) Permittees holding an active discharge permit shall file an updated application not less than 180 days in advance of the expiration date on that discharge permit.

(3) Permittees no longer engaging in activities requiring a discharge permit shall notify the Department of the change in status of their facility within 30 days of ceasing the actions requiring a discharge permit.

B. Requirements.

(1) Applications shall be made on the appropriate State discharge or NPDES application forms.

(2) The following information shall be submitted with the completed application:

(a) Name of any affiliate;

(b) Permit numbers for any State discharge or NPDES permits presently held by the applicant or his affiliate;

(c) Identification of administrative complaints or orders, if any, against the operation of the applicant or his affiliate; and

(d) The location of all sites involved in the storage of solid or liquid waste and the ultimate disposal sites of solid or liquid waste from any treatment system.

(3) If the discharge is from a new facility, preliminary plans and specifications, sufficiently adequate in scope and form to enable the Department to evaluate the proposed facility, shall be submitted with the application.

(4) The Department may require that an applicant for a discharge permit provide additional reports, specifications, plans, or other information on the existing or proposed pollution control program, including a material balance if considered necessary.

(5) Required Signatures. The application for a State discharge or NPDES permit shall be signed by a responsible official, as follows:

(a) For a corporation, by a responsible corporate officer such as:

(i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or

(ii) The manager of one or more manufacturing, production, or operating facilities employing more than 250 individuals or having gross annual sales or expenditures exceeding \$25 million, in second-quarter 1980 dollars, if authority to sign documents has been assigned or delegated to the manager according to corporate procedures;

(b) For a partnership or sole proprietorship, by a general partner or the proprietor, respectively;

(c) For a municipal, State, or other public agency, by either a principal executive officer, ranking elected official, or other duly authorized employee; or

(d) For a federal agency, by a principal executive officer that includes:

(i) The chief executive officer of the agency, or

(ii) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency such as a regional administrator of the EPA.

C. Application Fee. Each application shall be accompanied by a fee in the amount established by the Department in Regulation .11 of this chapter. The Department shall inform the applicant of the applicable fee which shall be paid by check or money order, made payable to the Department.

D. Receipt of Application. Upon receipt of an application, the Department shall:

(1) Notify the applicant that:

(a) The application has been received;

(b) The applicant is responsible for the cost of the public notice required under the provisions of this chapter and for transcripts from any informational meetings or public hearings;

(c) The applicant or the applicant's representative may be required to attend all public informational meetings and public hearings;

(d) Failure to pay the costs of public notification or failure to attend the public informational meetings or public hearings may result in the Department not approving the applicant's permit; and

(2) Publish according to §E of this regulation a notice of application that includes the following:

(a) The name of the applicant;

(b) The type of permit applied for;

(c) The type of proposed discharge;

(d) The volume of the proposed discharge;

(e) The location of the proposed discharge;

(f) A statement that persons may review and copy the application or related material and the procedure for doing so;

(g) A statement that the Department shall hold an informational meeting, if a person makes a written request within 10 working days of the publication of the notice, and the procedure for requesting an informational meeting; and

(h) Other information the Department determines is necessary for adequate public notification.

E. Public Notice and Access to Information and Confidential Information.

(1) The applicant shall pay the cost of all public notice required by this chapter.

(2) When this chapter requires publication of public notice, the Department shall publish or shall require the applicant to publish the notice at least once a week for 2 consecutive weeks in a daily or weekly newspaper of general circulation in the geographical area in which the proposed discharge is to be located.

(3) The Department may post or require the applicant to post the notice at the site of the proposed discharge or at public facilities in the geographical area of the proposed discharge.

(4) The Department shall maintain lists of persons, government agencies, and other concerned groups to which notice is sent concerning discharge permits.

(5) The Department shall provide notice of an informational meeting or a public hearing by mail to each person requesting the meeting or hearing or to the person's authorized representatives.

(6) The Department shall ensure that any State discharge or NPDES permit application and its supporting information, including any public comment concerning the application, shall be available to the public for inspection and copying.

(7) The Department shall provide facilities for the inspection of the State discharge or NPDES permit application and its supporting information and ensure that State employees respond to requests for inspection promptly without undue requirements or restrictions. The Department shall either:

(a) Ensure that a machine or device for the copying of papers and documents is available for a reasonable fee; or

(b) Otherwise provide for, or coordinate with, copying facilities or services so that requests for copies of nonconfidential documents may be responded to promptly.

(8) Protection of Information.

(a) Except for effluent data, the Department shall protect any information contained in an NPDES application, or other records, reports, or plans, as confidential upon a showing by a person that the information, if made public, would divulge methods or processes entitled to protection as the person's trade secrets.

(b) If the information being considered for confidential treatment is contained in an NPDES application, the Department shall forward this information to the EPA for concurrence in any determination of confidentiality.

(c) If the EPA determines that some or all of the information being considered for confidential treatment does not merit this protection, and communicates to the Department that it is the EPA decision not to concur in the withholding of the information, the Department shall:

(i) Notify the applicant of EPA's decision; and

(ii) After ascertaining that the applicant has exhausted or waived the EPA appeal process concerning confidentiality of business information, make available to the public, upon request, that information determined not to constitute trade secrets.

(9) Any information accorded confidential status, whether or not contained in an NPDES application, shall be disclosed, upon request, to an authorized EPA representative, who shall maintain the disclosed information as confidential.

.01-2 Discharge Permit Application Processing.

A. Informational Meetings.

(1) Upon written request by a person within 10 working days of the publication of a notice of application for a discharge permit, the Department shall hold an informational meeting to discuss the application.

(2) The Department also may hold an informational meeting or meetings at the Department's discretion.

(3) The informational meeting may be cancelled if all persons who made timely written requests withdraw their requests before the meeting.

(4) The Department may require the applicant to attend all informational meetings and present information concerning the application.

(5) If an informational meeting is required, the Department shall publish or require the applicant to publish notice of the informational meeting, unless the notice of application contained a notice of the informational meeting. This notice shall:

(a) Conform to the requirements of Regulation .01-1E of this chapter; and

(b) Contain:

(i) The information required under Regulation .01D of this chapter,

(ii) The date, time, and location of the informational meeting, and

(iii) Other information the Department determines to be necessary for adequate public notice.

(6) When the notice of the informational meeting also contains a notice of public hearing, the first notice of public hearing shall be given at least 30 days before the hearing.

B. Tentative Determination.

(1) Preparation of Tentative Determination and Fact Sheet.

(a) After the Department receives the discharge permit application, the Department shall prepare a tentative determination, which shall include:

(i) The name of the applicant;

(ii) A proposal to issue or not issue the permit;

(iii) The type, volume, and location of the proposed discharge;

(iv) Proposed permit limitations and conditions;

(v) A brief explanation of the Department's tentative decision;

(vi) If applicable, a proposed schedule of compliance;

(vii) A brief summary, if appropriate, concerning the development of a site-specific criterion, use of a biological or chemical translator for derivation of permit limits, or a temporary permit modification; and

(viii) Other information the Department considers necessary.

(b) When the tentative determination is to issue a discharge permit, the tentative determination shall include a draft permit, which shall be available to the public for inspection and copying.

(c) The Department shall prepare a fact sheet as required by the Federal Act for all proposed permits for major facilities.

(2) Publication of Notice of Tentative Determination.

(a) The Department shall publish or require the applicant to publish the notice of tentative determination according to Regulation .01-1E of this chapter.

(b) The notice of tentative determination shall include:

(i) The information in §B(1)(a) of this regulation;

(ii) The procedures for a person to review and copy the tentative determination, draft permit, or related material;

(iii) A statement allowing 30 days for public comment to the notice of tentative determination before the issuance of the final determination and the procedures for offering public comment;

(iv) A statement that the Department shall hold a public hearing when a written request for a public hearing is made within 20 days of the publication of the notice of tentative determination and the procedure for making a written request for a public hearing; and

(v) Other information the Department considers necessary to ensure adequate public notice.

(c) When the notice of tentative determination also includes a notice of public hearing, the first notice of public hearing shall be given at least 30 days before the hearing.

(3) Mailing List for the Notice of Tentative Determination and Fact Sheet.

(a) The notice of tentative determination shall be mailed to any other state whose waters may be affected by the issuance of a permit, so that the affected state may submit written comments to the Department and to the EPA.

(b) The notice of tentative determination and, if prepared, a fact sheet, shall be mailed, unless waived, to the appropriate district engineer of the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, and the National Marine Fisheries Service.

(c) Upon written request by a person, the Department shall add the name of that person to a mailing list to receive a copy of the notice of tentative determination and fact sheet, if prepared, for a specific NPDES permit application.

(4) Obligation of Discharger to Notify Department. A person who desires to apply for a site-specific criterion, biological translator, or chemical translator shall notify the Department before the later of the end of the comment period established:

(a) In the notice of tentative determination; or

(b) For the public hearing.

(5) Public Hearing.

(a) The Department shall schedule a public hearing on the tentative determination when a written request for a public hearing is made within 20 calendar days of the publication of the notice of tentative determination.

(b) The Department may schedule a public hearing on a State discharge or NPDES permit at the Department's discretion.

(c) The public hearing may be cancelled if all persons who made timely written requests withdraw the requests before the hearing.

(d) The applicant, if requested by the Department, shall provide information concerning the application.

(e) If the Department requires the applicant to attend the public hearing, failure of the applicant to attend the hearing and present information may result in the Department not issuing the permit.

(f) A person shall be given an opportunity to present information at the public hearing concerning the tentative determination.

(g) The Department shall accept written comments for 5 calendar days after the date of the public hearing.

(h) The applicant shall be responsible for the cost of preparing and obtaining a transcript of public hearings.

(6) Notice of Public Hearing.

(a) If a public hearing is scheduled, a notice of the hearing shall be published according to Regulation .01-1E of this chapter. The first notice shall give a minimum of 30 days notice before the hearing.

(b) The notice of public hearing shall include:

(i) The name of the applicant;

(ii) The type of discharge permit to be discussed at the public hearing, including the volume of the proposed discharge;

(iii) The location of the proposed discharge;

(iv) A brief description of the proposed permit conditions and limitations, proposed schedule of compliance, and any proposed special conditions including procedures for obtaining access to or copies of the tentative determination;

(v) Information concerning the date, time, and location of the public hearing; and

(vi) Other information the Department determines to be necessary for adequate public notification.

(c) The Department shall provide the applicant with a copy of the notice of public hearing.

.01-3 Discharge Permit Issuance and Contested Case Hearings.

A. Final Determination.

(1) If the Department is not required to prepare a final determination, the tentative determination shall be a final decision by the Department and a permit may be issued.

(2) The Department shall prepare a final determination if:

(a) Written comments adverse to the tentative determination are received by the Department within 30 days after publication of the notice of tentative determination;

(b) Comments adverse to the tentative determination were received in writing at, or within 5 days after, a public hearing held according to Regulation .01-2B(5) of this chapter;

(c) Comments adverse to the tentative determination were received orally at the public hearing conducted under this section and the Department prepared a transcript of the comments made at the hearing; or

(d) The final determination is substantively different from the tentative determination and all persons who may be aggrieved by the final determination have not waived, in writing, their right to request a contested case hearing.

(3) Those persons, including applicants, who believe any condition of a draft permit is inappropriate or that the Department's tentative determination is inappropriate, shall raise all reasonably ascertainable issues and submit all reasonably available arguments and documents supporting their position by the close of the public comment period, including any public hearing, as established by this chapter.

(4) Supporting materials which are submitted shall be included in full and may not be incorporated by reference, unless they are already part of the administrative record in the same proceeding, or consist of State or federal statutes and regulations, EPA documents of general applicability, or other generally available reference materials.

(5) Those offering comments shall make supporting materials not already included in the administrative record available by submitting a complete copy of all supporting materials at the time they submit their comments, or, if this submission is not practical, as determined solely by the Department, comments shall identify the location of the supporting materials.

(6) The final determination shall include:

(a) The name of the applicant;

(b) The type of discharge;

(c) The location of the discharge;

(d) The volume of the discharge;

(e) A statement of the Department's final determination and a brief explanation of the Department's decision;

(f) The permit limitations and conditions; and

(g) A schedule of compliance, if applicable.

(7) The final determination shall be available to the public for inspection and copying according to Regulation .01-1E of this chapter.

B. Notice of Final Determination.

(1) When the Department is required to prepare a final determination under §A of this regulation, a notice of final determination shall be published according to Regulation .01-1E of this chapter.

(2) The notice of final determination shall be published in the same newspapers as the notice of hearing.

(3) The notice of final determination shall include:

(a) The information contained in the final determination required by §A(3)(a)----- (e) of this regulation, and any limitations, change in permit conditions, or schedule of compliance;

(b) A statement that the notice of final determination is available for inspection and copying;

(c) The procedure for inspection and copying of the final determination;

(d) A statement that a person may request a contested case hearing to appeal a final determination if the person makes factual allegations with sufficient particularity to demonstrate that the person is aggrieved by the final determination and the final determination is:

(i) Legally inconsistent with any provisions of law applicable to the final determination being challenged, or

(ii) Based upon an incorrect determination of a relevant and material fact;

(e) A statement that a person requesting a contested case hearing shall submit a written request for adjudication within 15 days after publication of the notice of final determination;

(f) The procedure for requesting a contested case hearing; and

(g) Other information the Department determines to be necessary for adequate public notification.

C. Request for Contested Case Hearing.

(1) A person may not request a contested case hearing based on, or in a contested case hearing may not challenge, a facility's compliance with zoning and land use requirements or conformity with a county plan issued under Environment Article, Title 9, Subtitle 5, Annotated Code of Maryland. This regulation does not prevent a party from contesting the compliance of the facility with zoning and land use or county plan requirements in any proceeding brought in accordance with or under any applicable local laws.

(2) A person requesting a contested case hearing to appeal a final determination shall:

(a) Submit a written request in the manner specified in the notice of final determination within 15 days after publication of the notice of final determination; and

(b) Provide documentation that the requirements of §A of this regulation were met.

(3) A request for a contested case hearing shall include:

(a) The name, address, and telephone number of the person filing the request;

(b) The particular factual allegations which demonstrate that the:

(i) Person is aggrieved by the final determination, and

(ii) Final determination is legally inconsistent with any provisions of law applicable to the final determination being challenged or is based on an incorrect determination of a relevant and material fact.

(4) The request for a contested case hearing shall be processed and the hearing conducted in accordance with the provisions of State Government Article, Title 10, Subtitle 2, and Environment Article, Title 1, Subtitle 6, Annotated Code of Maryland.

.02 Requirements for the Issuance and Reissuance of Discharge Permits.

A. General. The Department shall issue or reissue a discharge permit upon a determination that:

(1) The discharge or proposed discharge specified in the application is or will be in compliance with all applicable requirements of:

- (a) Effluent limitations,
- (b) Surface and ground water quality standards,
- (c) The Federal Act,
- (d) State law or regulation,
- (e) Best available technology, and
- (f) Federal effluent guidelines;

(2) The discharge or proposed discharge from publicly owned treatment works (POTW) or other sewage treatment works, and the sewerage systems, including the pumping stations, which serve the POTW or other treatment works, are in compliance with:

- (a) The continuing planning process required under §303(e) of the Federal Act; and
- (b) The approved county water and sewerage plan adopted under Environment Article, Title 9, Subtitle 5, Annotated Code of Maryland;

(3) The provisions of existing discharge permits, as issued, and any outstanding administrative orders affecting the applicant or his affiliate have been or are being complied with by the applicant and his affiliate;

(4) Industrial waste treatment works, publicly owned treatment works, or other sewage treatment works are operated and maintained by a certified operator under the provisions of Environment Article, Title 12, Annotated Code of Maryland, and applicable regulations; and

(5) The requirements of Regulations .01, .01-1, and .01-2 of this chapter have been met.

B. Conformance with Federal Act. In the absence of formally promulgated effluent standards and limitations under the Federal Act, the Department shall apply, in the terms and conditions of issued discharge permits, effluent limitations to achieve the purpose of the Federal Act.

C. Compliance Schedule.

(1) The Department may impose a compliance schedule as a condition of a permit for existing discharges which do not comply with permit conditions, effluent limits, or water quality standards.

(2) When a compliance schedule is imposed, the Department shall:

- (a) Require the permittee to achieve compliance within:
 - (i) Applicable periods established in effluent limitations or water quality standards, or
 - (ii) In the absence of any legally applicable schedule of compliance, the shortest reasonable time consistent with the requirements of the Federal Act and State law or regulation;

(b) Set for each compliance schedule that is longer than 9 months, interim dates of 9 months or less for:

(i) Compliance with interim requirements, or

(ii) Submission of reports of progress toward completion of the interim requirements;

(c) Require the permittee to provide written notice of the permittee's compliance or noncompliance with the interim or final requirements within 14 days following each interim or final compliance date;

(d) Prepare and report to the EPA on the last day of February, May, August, and November, a list of all instances occurring in the quarter before the report where the permittee failed to:

(i) Comply with an interim or final requirement, or

(ii) Notify the Department of compliance or noncompliance with each interim or final requirement; and

(e) Make available to the public for inspection and copying, the quarterly lists reporting failure to comply with compliance schedules.

(3) The compliance schedule may be modified according to Regulation .10D of this chapter.

.02-1 Discharge Permit Limits.

A. General.

(1) Each discharge permit, unless inappropriate, shall specify average and maximum daily quantitative limits, in terms of weight, for the discharge of pollutants in the authorized discharge.

(2) Other discharge limits, such as minimum, average, or maximum concentration limits, may be imposed.

(3) If a schedule of compliance is included as a discharge permit condition, quantitative limits shall be set for the interim period as well as for the period following the final compliance date.

B. Net Credits. The discharge permit limits for the discharge of noncontact cooling water shall be based on the water quality standard unless the discharger applies to have the permit limits based on the concentration in the intake water. A discharger may make this application if:

(1) The intake water is the receiving water;

(2) The pollutant concentration in the intake water exceeds the water quality standard;

(3) Except for the additional provisions of a compliance schedule for corrosion and erosion in §C of this regulation, the discharger demonstrates to the Department's satisfaction, using a statistically rigorous demonstration, that no significant difference exists, at the edge of the appropriate mixing zone, between the intake concentration or loading and the effluent concentration or loading of the pollutant which exceeds the water quality standard; and

(4) The discharger demonstrates to the Department's satisfaction that no other activity, condition, method of operation, or materials used or produced at the facility which results in the introduction of wastewater into the facility's discharge (including entrainment of pollutants previously discharged or disposed of by the facility), significantly contributes to the exceedance of surface water quality standards.

C. Corrosion and Erosion.

(1) Reasonable Potential. A discharger will not be found to cause, have the reasonable potential to cause, or contribute to an exceedance of a numerical water quality standard for a pollutant caused by normal corrosion and erosion from a facility's water distribution piping and appurtenances or associated with intake water from a municipal drinking water supply, if:

(a) The facility is an existing facility as of the effective date of this section;

(b) The permitted dry-weather discharge from the facility consists of a combination of drinking fountain drainage, fire protection system drainage, and interior atmosphere control equipment drainage;

(c) The total annual estimated dry-weight mass loading for the pollutant of concern of the permitted dry-weather discharge from the facility does not exceed 5 pounds;

(d) The annual average effluent concentration of the permitted dry-weather discharge at the facility does not exceed the ambient concentration of the pollutant of concern in the facility's receiving water body; and

(e) The discharger's receiving water body for the discharge is not a Class III or Class III-P water.

(2) Compliance Schedule for Noncontact Cooling Water Discharges.

(a) For purposes of this section, normal corrosion and erosion shall be determined through site-specific calculations that are performed in accordance with scientifically defensible methodology approved by the Department and are based, where appropriate, on annual average intake concentrations.

(b) In establishing discharge permit limits on the basis of either water quality standards or intake water pollutant concentrations, the Department may grant a credit for normal corrosion and erosion associated with the discharging facility's noncontact cooling water condenser tubes, if the discharger:

(i) Demonstrates that, in the absence of the pollutant corroded and eroded from the facility's piping and appurtenances or noncontact cooling water condenser tubes, the discharger would not exceed the otherwise applicable permit limit;

(ii) Demonstrates that the normal corrosion and erosion associated with the intake water used by the facility for noncontact cooling water is sufficient to cause an exceedance of the otherwise applicable permit limit; and

(iii) Has entered into a consent order requiring that, within 5 years after the promulgation of this regulation or the permit expiration date at the time of promulgation, whichever is later, sufficient noncontact cooling water condenser tubes or other piping and appurtenances for noncontact cooling water will be modified, replaced, or repaired, to consist of noneroding and noncorroding materials, until the need for the corrosion/erosion credit is eliminated.

(c) The Department may reduce or deny the credit if any other activity, condition, method of operation, or material used or produced at the facility results in the increase of the erosion and corrosion-based pollutant in the facility's discharge (including entrainment of a pollutant previously discharged or disposed of by the facility) and significantly contributes to the exceedance of the water quality standard for that pollutant in the receiving water.

D. Mixing Zones.

(1) When any effluent meets water quality criteria at the end of the discharge pipe, the Department may not require the discharger to submit mixing zone calculations.

(2) When mixing zones are used to establish discharge permit limits, the discharger, at the time of application for permit issuance or renewal, or at a later time stipulated by the Department, shall select the mixing zone technique appropriate for each discharge and submit actual mixing zone calculations. All calculations and supporting studies should be based on established criteria and protocols or otherwise performed in accordance with scientifically defensible methodology approved by the Department. Supporting documentation may include one or more of the following:

(a) Tracer studies;

(b) Receiving water and discharge flow measurements;

(c) Surface water bathymetry;

(d) Diffuser design and performance data; and

(e) Effluent modeling results.

(3) When a mixing zone has been previously used to establish permit limits, the Department may, in its discretion, waive the requirement for full mixing zone development if the discharger demonstrates that:

- (a) Discharge conditions have not changed; and
- (b) No surface water impacts attributable to the facility have been identified.

.02-2 Minimum Levels for Discharge Permit Limits.

Some permit limits expressed as concentrations of specific chemicals may be below the minimum levels for those chemicals. For these permit limits, the level of compliance shall be the minimum level.

.02-3 Discharge Permit Limits Based on Biological Translator.

A. General. Biologically available equivalence addresses the potential for an effluent constituent, present primarily in the particulate or relatively non-bioavailable form, to become transformed by mixing with the receiving water to a bioavailable form. The biological translator utilizes the relationship between effluent-receiving water toxicity testing results and the laboratory standard dilution water toxicity data to relate an instream aquatic life criterion to the impact of a specific effluent. This ratio provides discharge-specific information concerning the assimilative capacity of the surface water for a specific pollutant when contained in a particular discharge.

B. Discharge Requirements for Use of the Biological Translator.

(1) Before the use of a biological translator in a waste load allocation to determine specific discharge permit limits, a discharger shall demonstrate:

(a) For acute aquatic life criteria, a history of repeated whole effluent toxicity testing at four consecutive quarterly intervals where the effluent, upon allowance for confirmation tests on failures, consistently exhibits an LC_{50} greater than 100 percent;

(b) For chronic aquatic life criteria, a history of repeated whole effluent toxicity testing at four consecutive quarterly intervals where the effluent, upon allowance for confirmation tests on failures, consistently exhibits an IC_{25} greater than the instream waste concentration at the edge of the chronic mixing zone; and

(c) Achievement of best available technology with satisfactory operation and maintenance.

(2) The discharger shall continue to demonstrate, as appropriate, through whole effluent toxicity testing at quarterly intervals, as required by the discharge permit:

(a) An LC_{50} which, upon allowance for confirmation tests for failures, consistently exceeds 100 percent; or

(b) An IC_{25} which, upon allowance for confirmation tests for failures, consistently exceeds the instream waste concentration at the edge of the chronic mixing zone.

(3) To have the Department continue using a biological translator to derive permit limits, a discharger shall repeat the process of data collection and effects ratio calculation each time the permit is renewed or changed to assure that all factors influencing the effluent-receiving water effects ratio remain the same.

(4) The discharger shall demonstrate that no new BAT is available at each permit renewal.

(5) The discharger shall provide all the necessary data to support the biological translator to the satisfaction of the Department.

C. Procedure.

(1) Notification. A discharger who wants permit limits developed using the biological translator shall notify the Department in writing in accordance with Regulation .01-2B of this chapter. This notification shall include:

(a) The substance or substances for which biologically available equivalence limits are to be developed;

(b) The data demonstrating that the preconditions specified in §B of this regulation have been met; and

(c) The proposed methodology for deriving the biological translator, including sampling times and locations, effluent dilutions, species to be tested, and laboratory quality assurance/quality control procedures.

(2) Time for Completion of Studies. A discharger, having notified the Department as required by §C(1) of this regulation, shall complete all studies supporting use of the biological translator and apply to the Department for approval of the biological translator within 12 months after this notification.

(3) Application. An application for the biological translator shall include the:

(a) Substance or substances for which biologically available equivalence limits are to be developed;

(b) Most recent data collected to satisfy the preconditions in §B of this regulation; and

(c) Data supporting the biological translator.

(4) Development of the Biological Translator. The biological translator shall be developed in accordance with "Guidelines for the Use of a Biological Translator in Wasteload Allocations", (MDE-WMA-003, March 16, 1992), which is incorporated by reference, and current EPA sampling and testing procedures listed in the 1994 Interim Guidance on Determination and Use of Water-Effect Ratios for Metals (EPA-823-B-94-001) or the 2001 Streamlined Water-Effect Ratio Procedure for Discharges of Copper (EPA-822-R-01-005), which are incorporated by reference.

(5) Time for Department Action on Application. The Department shall complete its review and either approve or deny use of the biological translator within 6 months after receipt of the application.

(6) Use of the Biological Translator. When the Department has completed its review and determined that the supporting data are satisfactory, the Department shall use the resulting ratio with the appropriate water quality criterion to obtain a revised value for use in the derivation of a permit limit.

(7) Unsatisfactory Biological Translator. If the Department determines that the data supporting the biological translator are unsatisfactory, the Department may not use the resulting ratio. The discharger shall be required by the Department to revise the application or select an alternative approach for establishing permit limits.

(8) Public Participation. Those permit limits developed using the biological translator shall be included in the draft NPDES permit and in the public participation process for permit review.

.02-4 Discharge Permit Limits Based on Chemical Translator.

A. General.

(1) The chemical translator is a mechanism for establishing the relationship between the dissolved concentration used in determining compliance with the instream aquatic life water quality criteria for metals and the measurement required for permit limits and waste load allocation.

(2) The chemical translator may not be used to establish discharge permit limits if the discharger has completed studies, under Regulation .02-3 of this chapter, which support the use of the biological translator.

B. Discharge Requirements for Use of the Chemical Translator.

(1) Before the use of a chemical translator in a waste load allocation to determine specific discharge permit limits, a discharger shall demonstrate:

(a) For acute aquatic life criteria, a history of repeated whole effluent toxicity testing at four consecutive quarterly intervals where the effluent, upon allowance for confirmation tests of failures, consistently exhibits an LC_{50} greater than 100 percent;

(b) For chronic aquatic life criteria, a history of repeated whole effluent toxicity testing at four consecutive quarterly intervals where the effluent, upon allowance for confirmation tests on failures, consistently exhibits an IC_{25} greater than the instream waste concentration at the edge of the chronic mixing zone; and

(c) Achievement of best available technology with satisfactory operation and maintenance.

(2) The discharger shall continue to demonstrate, as appropriate, through whole effluent toxicity testing at quarterly intervals throughout the period of the permit:

(a) An LC_{50} which, upon allowance for confirmation tests for failures, consistently exceeds 100 percent; or

(b) An IC_{25} which, upon allowance for confirmation tests for failures, consistently exceeds the instream waste concentration at the edge of the chronic mixing zone.

(3) To have the Department continue using a chemical translator to derive permit limits, a discharger shall repeat the process of data collection and calculation each time the permit is renewed or changed to assure that all factors influencing the chemical translator remain the same.

(4) The discharger shall demonstrate that no new BAT is available at each permit renewal.

(5) The discharger shall provide all the necessary data to support the chemical translator to the satisfaction of the Department.

C. Procedure.

(1) Notification. A discharger who wants permit limits developed using the chemical translator shall notify the Department in writing in accordance with Regulation .01-2B(4) of this chapter. This notification shall include:

(a) The metal or metals for which chemical translator limits are to be developed;

(b) The data demonstrating that the preconditions in §B of this regulation have been met; and

(c) The proposed methodology for deriving the chemical translator, including sampling times and locations, analytical methods, and all quality assurance/quality control procedures.

(2) Time For Completion of Studies. A discharger, having notified the Department as required by §C(1) of this regulation, shall complete all necessary studies supporting the use of the chemical translator and apply to the Department for approval of the chemical translator within 12 months of this notification.

(3) Application. An application for the chemical translator shall include the:

(a) Substance or substances for which the chemical translator limits are to be developed;

(b) Most recent data collected to satisfy the preconditions in §B of this regulation; and

(c) Data supporting the chemical translator developed permit limits.

(4) Development of Chemical Translator. The chemical translator is a ratio designed to estimate concentrations of total recoverable metal from a water quality criterion applied as dissolved metal. This ratio shall be developed using one of the following methods:

(a) The discharger demonstrates, to the satisfaction of the Department, the ratio between dissolved and total recoverable metal concentrations through the collection and evaluation of appropriate field data; or

(b) For fresh receiving waters only, the discharger uses the following ratio of total recoverable (C_T) to dissolved (C) metal concentrations:

C_T divided by $C = 1 + K_p[ss] \times 10^{-6}$), where

(i) K_p is the linear partition coefficient in the units Kg^{-1} ;

(ii) $[ss]$ is the concentration of suspended solids in the units mg/L; and

(iii) $K_p = K_{po}[ss]^a$, where the values for K_{po} and a are given in the following table:

LINEAR PARTITION COEFFICIENTS FOR PRIORITY METALS IN STREAMS AND LAKES				
	Streams		Lakes	
Metal	K_{po}	a	K_{po}	a
Arsenic	0.48×10^6	-0.73	(Assumed to be equal to streams)	
Cadmium	4.00×10^6	-1.13	3.52×10^6	-0.92
Chromium	3.36×10^6	-0.93	2.17×10^6	-0.27
Copper	1.04×10^6	-0.74	2.85×10^6	-0.90
Lead	0.31×10^6	-0.19	2.04×10^6	-0.53
Mercury	2.9×10^6	-1.14	1.97×10^6	-1.17
Nickel	0.49×10^6	-0.57	2.21×10^6	-0.76
Zinc	1.25×10^6	-0.70	3.34×10^6	-0.68

(5) Time for Department Action on Application. The Department shall complete its review and either approve or deny use of the chemical translator within 6 months of receipt of the application.

(6) Use of the Chemical Translator. When the Department has completed its review and determined that the supporting data are satisfactory, the Department shall use the resulting

ratio with the appropriate water quality criterion to obtain a revised value for use in the derivation of a permit limit.

(7) Unsatisfactory Chemical Translator. If the Department determines that the data are unsatisfactory, the Department may not use the resulting ratio supporting the chemical translator. The discharger shall be required by the Department to revise the application or select an alternative approach for establishing permit limits.

(8) Public Participation. Permit limits developed using the chemical translator shall be included in the draft NPDES permit and in the public participation process for permit review.

.03 Monitoring, Recording, and Reporting for Discharge Permits.

A. Monitoring.

(1) A discharge authorized by a discharge permit shall be subject to any monitoring requirements the Department deems necessary, including:

- (a) The installation, use, and maintenance of monitoring equipment or methods; and
- (b) When appropriate, biological monitoring methods.

(2) Each permit shall specify the sampling and analysis requirements, including the frequency and type of sampling and analysis.

(3) Each permittee shall submit the name and address of the laboratory performing analyses within 30 days of the issuance of the State discharge or NPDES permit. If the permittee changes laboratories during the operating permit, the Department shall be notified within 30 days in writing.

B. Record Keeping.

(1) The permittee shall retain for a minimum of 3 years any records of monitoring activities and results including all:

- (a) Raw data and original strip chart recordings;
- (b) Calibration and maintenance records; and
- (c) Reports.

(2) This period of retention shall be extended during the course of unresolved litigation regarding the discharge of pollutants, or when requested by the Department.

(3) All records of monitoring shall include for all samples:

- (a) The date, exact place, time, and method of sampling;
- (b) The dates of analyses;
- (c) Who performed the analyses;
- (d) The analytical techniques and methods used; and
- (e) The results of the analyses.

C. Reporting.

(1) The permittee shall submit the monitoring results to the Department on the proper discharge monitoring report form.

(2) The report shall be submitted in the time frame required by each permit.

(3) The reporting period may not be less than once per year.

(4) Measurements below the minimum level may be reported as BML (below minimum level).

.04 Sewage Treatment Works.

A. The person holding the permit for publicly owned treatment works or other sewage treatment works shall provide the Department with a notice concerning:

(1) The introduction of pollutants into these treatment works from any discharge of industrial waste for which a State discharge permit would be required if the discharge were made directly to the waters of the State; or

(2) Any substantial change in volume, character, or concentration of pollutants from any discharge of industrial waste being introduced into the treatment facilities.

B. The notice shall include the following:

(1) The quantity and quality of the discharge; and

(2) The anticipated impact of the discharge on the quantity and quality of the permittee's discharge.

C. Level of Required Treatment.

(1) Secondary Treatment. Secondary treatment shall be required as a minimum for sewage treatment works discharging into any waters of the State.

(2) Special Treatment Requirements for Discharge to Shellfish Harvesting Waters.

(a) Treatment sufficient to afford protection for shellfish harvesting waters shall be required for all sewage treatment works discharging into Class II waters.

(b) This treatment may require a higher level of secondary treatment or advanced waste treatment.

(c) These treatment works shall incorporate a bypass control system, including a minimum 24-hour emergency holding facility, and shall provide for biocide residual control.

(3) Advanced Waste Treatment Required. Advanced waste treatment as determined by waste load allocation shall be required for all sewage treatment works with a design capacity exceeding 1 million gallons per day and discharging into water quality limited waters. Advanced waste treatment may also be required for smaller sewage treatment works where the Department determines that this level of treatment is necessary.

(4) Special Advanced Wastewater Treatment Requirements. An effluent limitation of 2 milligrams/liter total phosphorus shall be required for all facilities discharging more than:

(a) 0.5 million gallons per day to the Chesapeake Bay and its tributaries above the Baltimore Harbor; and

(b) 10 million gallons per day in the vicinity of Baltimore Harbor to the Bay Bridge.

.05 Reserved.

.06 Term and Approval of Discharge Permit.

A. Term of Permit.

(1) The term of each discharge permit shall be for a maximum of 5 years, unless the permit is previously amended, suspended, or revoked.

(2) Each discharge permit shall specify the expiration date.

(3) If a timely and complete reapplication has been submitted and the Department, through no fault of the permittee, is unable to issue a new permit, the terms and conditions of the existing discharge permit shall continue and remain fully effective and enforceable.

B. Permittee Responsibility for Continuing Pollution Control. The issuance of a discharge permit by the Department does not relieve the permittee from the continuing responsibility for:

(1) The successful treatment and disposal of wastewater and other waste; and

(2) Compliance with applicable provisions of State and federal law and regulations.

.07 Administration of Federal NPDES Program by the State.

A. The Department shall administer the National Pollutant Discharge Elimination System (NPDES) program as part of its own discharge permit system.

B. This administration shall be in accordance with:

- (1) Environment Article, Title 9, Annotated Code of Maryland;
- (2) This chapter; and
- (3) The Federal Act.

.08 General Discharge Permit Program.

A. Purpose.

- (1) General permits are discharge permits issued to classes of discharges.
- (2) The Department intends to regulate certain classes of discharges through the issuance of general permits.
- (3) All discharges within the described class are permitted, subject to the specific conditions contained in the general permit.
- (4) Only those classes of discharges considered appropriate by the Department for regulation by this mechanism will be covered by a general permit.
- (5) All other dischargers are subject to the requirements of a separate discharge permit issued under Regulations .01 ----- .07 of this chapter and COMAR 26.08.08.

B. Classes of Discharges Eligible for Regulation under General Permits.

- (1) For the purpose of this section, the term "landfill" includes sanitary landfills as defined in COMAR 26.04.07 as well as any land containment or land disposal facility for industrial, commercial, or residential solid waste, whether publicly or privately owned or operated, or both.
- (2) The following classes of discharges may be regulated through the General Permit Program:
 - (a) Storm water discharges;
 - (b) Landfills or sludge-handling facilities designed to achieve natural attenuation of leachate, with no discharge to surface waters other than storm water runoff regulated under §B(2)(a) of this regulation;
 - (c) Individual on-lot domestic waste subsurface disposal systems permitted by the Department under Environment Article, Title 9, Subtitle 5, Annotated Code of Maryland, and COMAR 26.04.02;
 - (d) Municipal separate storm sewers;
 - (e) Ground water heat pumps discharging to waters of this State;
 - (f) Other categories of discharges as established under this regulation.

C. Permit Provisions. The Department shall prepare a draft permit for each specific class of dischargers under consideration for regulation according to the General Permit Program. The draft permit shall contain those general and special conditions and, if appropriate, monitoring and reporting requirements considered necessary by the Department to protect public health and the environment.

D. Permit Coverage. Unless specifically indicated otherwise, a general permit issued under this regulation shall authorize all discharges satisfying the class description. The Department, at its discretion, may notify a discharger and require issuance of a separate State discharge permit under Regulations .01-----.07 of this chapter and COMAR 26.08.08.

E. Permit Duration. A general permit issued under this regulation shall be valid for a period not to exceed 5 years, and shall be renewed at the discretion of the Department according to G-----K of this regulation.

F. Discharges Authorized Under a General Permit. The requirements of G-----J of this regulation do not apply to the discharges authorized under a general permit, only to the issuance of the general permit itself.

G. Draft Permits and Tentative Determinations.

(1) The Department shall prepare a draft permit and a tentative determination for a specific class of dischargers to be regulated under the General Permit Program.

(2) A fact sheet shall also be prepared describing the class of dischargers to be regulated, outlining the proposed permit conditions and limitations, and specifying the procedures for a person to review and copy the tentative determination, draft permit, and related materials.

(3) The tentative determination shall include:

(a) A statement that the Department proposes to issue a general permit for a certain class of discharges;

(b) The procedures for a person to review and copy the tentative determination, draft permit, or related material;

(c) A brief explanation of the Department's tentative decision;

(d) Proposed permit limitations and conditions; and

(e) If applicable, a proposed schedule of compliance.

(4) Public Notice of Tentative Determination.

(a) The Department shall publish a public notice of the Department's tentative determination in the Maryland Register and according to Regulation .01-1E of this chapter.

(b) The notice of tentative determination shall include:

(i) The information required in §G(2) of this regulation;

(ii) A statement that the Department shall allow 30 days for public comment to the tentative determination before the issuance of the final determination and the procedure for submitting comments;

(iii) A statement that the Department shall hold a public hearing when a written request for a public hearing is made by a person within 20 days of the publication of the notice of tentative determination and the procedure for making a written request for a public hearing; and

(iv) Other information the Department determines to be necessary for adequate public notification.

(c) If the notice of tentative determination also includes a notice of public hearing, the notice of public hearing shall be given at least 30 days before the hearing.

H. Public Hearings.

(1) The Department shall schedule a public hearing on the tentative determination when a written request for a public hearing is made within 20 calendar days of the publication of the notice of tentative determination.

(2) The Department, at its own discretion, may hold:

(a) An informational meeting or meetings; or

(b) A public hearing or hearings.

(3) The public hearing may be cancelled if all persons who made timely written request for such a meeting withdraw their requests.

(4) If a public hearing is required, the Department shall:

(a) Publish a notice of the hearing according to Regulation .01-1E of this chapter, and the first notice shall give a minimum of 30 days notice before the hearing; and

(b) Publish a notice of the public hearing that includes:

(i) The information required under §G(2) of this regulation,

(ii) The date, time, and location of the public hearing, and

(iii) Other information the Department determines to be necessary for adequate public notification.

(5) The Department shall:

(a) Give a person who attends a public hearing an opportunity to make comments concerning the issuance of a general permit; and

(b) Accept written comments on the proposal to issue a general permit for at least 5 days after a public hearing.

I. Final Determinations for General Permits.

(1) If the Department is not required to prepare a final determination, the tentative determination shall be a final decision by the Department and a permit may be issued.

(2) The Department shall prepare a final determination if:

(a) Written comments adverse to the tentative determination were received by the Department within 30 days after publication of the notice of tentative determination;

(b) Comments adverse to the tentative determination were received in writing at, or within 5 days after, a public hearing held under the provisions of §H of this regulation;

(c) Comments adverse to the tentative determination were received orally at the public hearing conducted under this section and the Department prepared a transcript of the comments made at the hearing; or

(d) The final determination is substantively different from the tentative determination and persons who may be aggrieved by the final determination have not waived, in writing, their right to request a contested case hearing.

(3) Those persons, including applicants, who believe any condition of a draft permit is inappropriate or that the Department's tentative determination is inappropriate, shall raise all reasonably ascertainable issues and submit all reasonably available arguments and documents supporting their position by the close of the public comment period, including any public hearing, as established by this chapter.

(4) Supporting materials which are submitted shall be included in full and may not be incorporated by reference, unless they are already part of the administrative record in the same proceeding, or consist of State or federal statutes and regulations, EPA documents of general applicability, or other generally available reference materials.

(5) Those offering comments shall make supporting materials not already included in the administrative record available by submitting a complete copy of all supporting materials at the time they submit their comments or, if this submission is not practical, as determined solely by the Department, comments shall identify the location of the supporting materials.

(6) The final determination shall include the following:

- (a) A description of the type of discharges to be included in the general permit;
- (b) A statement of the Department's final determination and a brief explanation of the Department's decision;
- (c) The permit limitations;
- (d) The general and special permit conditions; and
- (e) A schedule of compliance, if applicable.

(7) The final determination shall be available to the public for inspection and copying according to Regulation .01-1E of this chapter.

J. Notice of Final Determination.

(1) When the Department is required to prepare a final determination under §I of this regulation, a notice of final determination shall be published according to Regulation .01-1E of this chapter.

(2) The notice of final determination shall include:

- (a) The information required under §I(3) (a)----- (b) of this regulation, including any change in permit limitations, conditions, or schedule of compliance;
- (b) A statement that the notice of final determination is available for inspection and copying;
- (c) The procedure for inspecting and copying the final determination;
- (d) A statement that a person may request a contested case hearing to appeal a final determination if the person makes factual allegations with sufficient particularity to demonstrate that the person is aggrieved by the final determination and the final determination is:
 - (i) Legally inconsistent with any provisions of law applicable to the final determination being challenged, or
 - (ii) Based upon an incorrect determination of a relevant and material fact;
- (e) A statement that a person requesting a contested case hearing shall submit a written request for adjudication within 15 days after the publication of the notice of final determination;
- (f) The procedure for requesting a contested case hearing; and
- (g) Other information the Department determines to be necessary for adequate public notification.

K. Request for Contested Case Hearings for General Permits.

(1) A person may not request a contested case hearing on an individual discharge covered under a general permit adopted under the provisions of this chapter.

(2) A person requesting a contested case hearing to appeal the final determination of the Department to issue a general permit shall:

(a) Submit a written request in the manner specified in the notice of final determination within 15 days after publication of the notice of final determination; and

(b) Provide documentation that the requirements of §1 of this regulation were met.

(3) Requests for a contested case hearing shall include:

(a) The name, address, and telephone number of the person filing the request;

(b) The particular factual allegations which demonstrate that the person is aggrieved by the final determination and the final determination is:

(i) Legally inconsistent with any provisions of law applicable to the final determination being challenged; or

(ii) Based on an incorrect determination of a relevant and material fact.

(4) The Department shall process requests for contested case hearings according to State Government Article, Title 10, and Environment Article, Title 1, Annotated Code of Maryland.

.09 General Discharge Permits.

A. General Discharge Permit for Stormwater Discharge Associated with Construction Activity.

(1) Exception. Construction activity excluded under the Federal Act and regulated under COMAR 26.09.02 is not covered under this general permit.

(2) Activities Covered. Activities covered under this general permit are new and existing stormwater discharges that are composed in whole or in part of discharges associated with construction activity as regulated under the Federal Act and Environment Article, Title 4, Subtitles 1 and 2, Annotated Code of Maryland.

(3) Need for Additional Permits. Stormwater discharges which result from the completed construction authorized under this regulation may require additional authorization under other general permit regulations or an individual permit.

(4) Application. Before the initiation of an activity covered under this permit, an applicant shall make application to the Department, including the payment of any fees.

(5) Specific Requirements. A permittee shall comply with requirements to obtain approval for:

(a) Erosion and sediment control plans required under Environment Article, Title 4, Subtitle 1, Annotated Code of Maryland; and

(b) Stormwater management plans required under Environment Article, Title 4, Subtitle 2, Annotated Code of Maryland.

B. General Discharge Permit for StormWater Discharges Associated with Industrial Activity.

(1) Exceptions. The following activities are not regulated under this general permit:

(a) Industrial stormwater discharges with federal effluent guideline limitations;

(b) Stormwater discharges associated with industrial activity from inactive mining or inactive oil and gas operations occurring on federal lands; and

(c) Stormwater discharges for which the:

(i) NPDES permit has expired, has been terminated, or has been denied; or

(ii) Department requires an individual permit or a different general permit.

(2) Activities Covered. Existing stormwater discharges that are comprised in whole or in part of stormwater runoff associated with industrial activity are covered.

(3) Application. After the effective date of this regulation, an applicant shall make application to the Department, including the payment of any fees, for any existing or new discharge.

(4) Specific Requirements. Stormwater discharge associated with industrial activity shall comply at all times with the provisions of:

(a) Environment Article, Title 7, Subtitle 2, Annotated Code of Maryland;

(b) Environment Article, Title 9, Subtitle 3, Annotated Code of Maryland; and

(c) The Federal Act.

C. General Permits for Municipal Separate Storm Sewer Systems.

(1) Definitions. "Municipal separate storm sewer systems" means systems that convey stormwater runoff from municipalities as defined in the Federal Act or as designated by the Department in accordance with the Federal Act.

(2) Required Permits. The Department shall promulgate general permits as necessary to meet the requirements of the Federal Act, including permits for:

(a) Municipal separate storm sewer systems required to be permitted under the Federal Act; and

(b) Those systems designated by the Department in accordance with the Federal Act.

D. Specific Requirements for Landfills Designed for Natural Attenuation of Leachate with No Discharge to Surface Waters other than Stormwater Run-off.

(1) Landfills designed to achieve natural attenuation of leachate shall be designed, constructed, and operated in accordance with the specific provisions included in a permit issued by the Department pursuant to Environment Article, §9-204, Annotated Code of Maryland.

(2) Stormwater control systems at landfills are regulated through the general permit provisions specified in Regulation .08C(1) of this chapter.

E. Specific Requirements for Subsurface Sewage Disposal Systems.

(1) Subsurface sewage disposal systems shall include, but are not limited to, septic systems or aerated septic systems with appurtenant seepage pits or trenches, seepage pits, mound systems, or other disposal systems approved by the Department.

(2) The systems shall be designed, installed, and maintained in accordance with the specific conditions included in the permit issued pursuant to Environment Article, Title 9, Subtitle 5, Annotated Code of Maryland, and COMAR 26.04.02.

F. Ground Water Heat Pumps.

(1) Persons operating or planning to install a ground water heat pump not authorized by a separate State discharge permit shall, upon request of the Department, provide information concerning the system as installed or planned to be installed. The information shall include a map or sketch of the site, indicating the location of the source well, the discharge point or well, the well permit number or numbers, and, if appropriate, the name of the receiving streams. This information may be submitted to the Department through the local county health department.

(2) All permittees shall obtain a ground water appropriation permit from the Water Resources Administration and shall comply with all terms and conditions of that permit.

(3) All permittees shall obtain a well construction permit from the Department or, if appropriate, the responsible county agency.

G. Grading or Filling Activities Not Otherwise Regulated by the Department. If applicable, permittees shall obtain a permit or license issued pursuant to the Natural Resources Article, §§8-803, 9-202, or 9-306, Annotated Code of Maryland.

H. General Discharge Permit for Surface Coal Mines and Related Facilities.

(1) Exceptions. The following discharges are not covered under this general permit:

(a) Discharges of toxic substances which exceed State water quality criteria for toxic substances;

(b) Discharges which elevate temperature in Use III, Use III-P, Use IV, and Use IV-P streams;

(c) Discharges of acid mine drainage from mine reclamation areas;

(d) Discharges from coal mines commingled with other sources of wastewater, particularly wastes from underground mines; and

(e) Discharges from underground coal mines.

(2) Eligible Discharges. This permit covers all new and existing discharges of stormwater runoff and ground water seepage to surface waters of this State from:

(a) Surface coal mines, including active mining areas, access roads, coal storage, and loading areas (tipples);

(b) Independent coal storage and loading areas (tipples);

(c) Coal preparation plants; and

(d) Reclamation areas.

I. General Discharge Permit for Seafood Processors.

(1) Exceptions. A discharge permit is not required for outdoor crab shedding operations.

(2) Eligible Discharges. This permit covers the following new and existing discharges:

(a) Wastewater from blue crab, oyster, and fish processing operations such as cleaning, preparing, and packing;

(b) Auxiliary discharges, which are limited to noncontact cooling water, ice machine drainage, steam or cooling coil condensate, and inside crab shedding tray overflow; and

(c) Stormwater runoff from processing or material handling.

J. General Discharge Permit for Mineral Mines, Quarries, Borrow Pits, and Concrete and Asphalt Plants.

(1) Exceptions. This permit may not cover the following discharges:

(a) Discharges from coal mines and associated facilities as regulated under 40 CFR 434; and

(b) Discharges from industrial sand facilities that utilize HF flotation as regulated by 40 CFR §436.40.

(2) Eligible Discharges. This permit covers all new and existing discharges of:

(a) Infiltrated ground water pumped from mines to surface waters;

(b) Wastewater from material processing to surface or ground waters;

(c) Stormwater runoff to surface waters from mine sites (facilities classified within Standard Industrial Classifications 10 and 14), concrete plants (facilities classified within Standard Industrial Classification 32), and asphalt plants (facilities classified within Standard Industrial Classification 29);

(d) Stormwater runoff to surface waters from industrial activities co-located or appurtenant to a permitted activity specified in §J(2)(c) of this regulation;

(e) Wastewater from washing mixer trucks and concrete mixing equipment to surface or ground waters;

(f) Miscellaneous wastewater from spillage at ready-mix plants to surface or ground waters; and

(g) Wastewater from hydrodemolition to ground waters.

K. General Discharge Permit for Dewatering, Hydrostatic Testing, and Groundwater Remediation.

(1) Exceptions. This permit may not cover the following discharges:

(a) Discharges of any type from oil terminals;

(b) Tank bottom wastewater discharges to ground waters of the State;

(c) Wastewater from the washing of chemical and petroleum storage tanks, pipes, and pipelines; and

(d) Wastewater discharges to ground water that, before treatment, contain concentrations of benzene, lead, or other substances in excess of toxicity characteristic leaching procedure (TCLP) concentrations as defined in COMAR 26.13.02.14.

(2) Eligible Discharges. This general permit covers all new and existing discharges of:

(a) Treated tank bottom wastewater from storage tanks used only for gasoline, kerosene, fuel oil, no. 6 oil, or aviation fuel to surface waters;

(b) Wastewater from the flushing or hydrostatic testing of pipes, pipelines, or tanks, or wastewater from pipeline infiltration;

(c) Water in excess of 10,000 gallons per day as a monthly average from the overflow, flushing, or dewatering of reservoirs, tanks, or pipelines used for the storage or delivery of untreated water;

(d) Wastewater from cleaning or dewatering of vessels or structures used to store or convey potable water;

(e) Stormwater discharges from storage tank containment structures;

(f) Emergency discharges of potable water;

(g) Extracted water from an aquifer test;

(h) Wastewater from construction dewatering;

(i) Foundation drainage which has been treated for any contaminants; and

(j) Air stripping, activated carbon adsorption, or equivalently treated wastewater from groundwater remediation sites not covered by the General Discharge Permit of Treated Ground Water From Oil Contaminated Ground Water Sources to Surface or Ground Waters of the State.

L. General Discharge Permit for Swimming Pools and Spas.

(1) Exceptions. This permit does not cover sanitary wastewater discharges associated with swimming pool and spa operations.

(2) Eligible Discharges. This permit covers discharges of filter backwash, cleaning water, overflow, and drainage from lowering or emptying a public or private pool or spa to surface or ground water.

M. General Discharge Permit for Marinas.

(1) Exceptions. This permit does not cover the following discharges:

(a) Stormwater discharges that have shown, or may be reasonably expected to contribute to, a violation of a water quality standard;

(b) Stormwater discharges for which the Department requires an individual permit or an alternative general permit; and

(c) Sanitary wastewater discharges.

(2) Eligible Discharges.

(a) This permit covers the following discharges from marinas and boat maintenance facilities:

(i) Stormwater runoff to surface waters from areas involved in boat maintenance including boat rehabilitation, mechanical repairs, painting, and fueling, and boat or equipment cleaning operations;

(ii) Wastewater discharges to surface or ground waters from washing of boats and boat equipment; and

(iii) Noncontact cooling water discharges such as from ice machines, refrigeration units, and other machinery to surface waters.

(b) The discharge of 10,000 gallons per day or less of noncontact cooling water to ground water does not require a permit.

N. General Discharge Permit for Animal Feeding Operations.

(1) Exceptions.

(a) In locations or circumstances in which the Department concludes in its sole discretion that this general discharge permit does not adequately protect State waters, the Department may require a person otherwise eligible for this permit to apply for and obtain an individual discharge permit.

(b) Large duck CAFOs with liquid manure handling systems are not eligible for coverage under this general permit.

(2) Eligible Discharges. This permit covers:

(a) Discharges from a CAFO;

(b) Discharges from a MAFO; and

(c) Discharges from an AFO that utilizes a spray irrigation system for application of liquid wastewater to the soil surface.

(3) Public Process for CAFOs and MAFOs.

(a) A NOI submitted by an AFO is subject to the public participation process described in this subsection.

(b) "Plan" or "required plan" in this section means a CNMP, NMP, or conservation plan.

(c) Notwithstanding Regulation .01-1E of this chapter, publication of public notices or public notification required by this regulation may be accomplished by posting on the Department's website.

(d) The Department shall notify the public upon receipt of a NOI or a required plan by posting relevant information, including but not limited to facility name, location, size, type of operation, and date and type of document received, on the Department's website.

(e) The Department may require an applicant to place a copy of the NOI and required plans in the main branch of the public library, in the county in which the AFO is located, for the duration of any related public comment period.

(f) The Department shall make available for review and copying an applicant's NOI and required plans in accordance with Regulation .01-1E(6) and (7) of this chapter.

(g) The Department shall review the NOI and required plans and, based upon this review, determine whether they satisfy the requirements of the general permit.

(h) When additional information is necessary to complete the NOI or to clarify, modify, or supplement previously submitted material, the Department may request that information from the permit applicant.

(i) If the Department determines that the plans satisfy the requirements of the general permit, the Department shall prepare a preliminary approval identifying the terms of the plans that satisfy the general permit requirements.

(j) The Department shall publish public notice of a preliminary approval of the required plans in accordance with §N(3)(c) of this regulation. The notice shall provide for a period of 30 days for public comment and shall specify how to review and copy the preliminary approval, NOI, and the required plans. For a CAFO, the notice shall also specify the procedure for making a written request for a public hearing regarding the preliminary approval of the terms of the required plans.

(k) Public Hearing.

(i) The Department shall schedule a public hearing on the preliminary approval for a CAFO when a written request for a public hearing is made within 20 days of the publication of notice of the preliminary approval.

(ii) The Department may, at its discretion, schedule a public hearing on the preliminary approval for a MAFO or a CAFO.

(iii) A public hearing regarding the Department's preliminary approval of the required plans shall follow the same procedures as those applicable to public hearings on tentative determinations set forth in Regulation .01-2B(5) and (6) of this chapter.

(l) Final Approval of Required Plans.

(i) The Department shall prepare and provide notice of its final approval of the required plans following the same procedures as those applicable to final determinations set forth in Regulations .01-3A and B of this chapter.

(ii) Notwithstanding Regulation .08K(l) of this chapter, a person aggrieved by the Department's final approval of the required plans may request a contested case hearing.

(iii) The form and content of a request for a contested case hearing shall be consistent with Regulation .08K(2) and (3) of this chapter. A contested case hearing

conducted under this paragraph shall be limited to contesting the terms of the approved plans.

(iv) When the Department grants final permit coverage to an AFO, the terms of the plans, as revised by the Department, are enforceable under the terms and conditions of the general permit.

(v) The Department shall notify the AFO owner or operator of the terms and conditions of the plans that are approved by the Department and enforceable under the permit.

(m) A MAFO that has submitted a complete NOI and all required plans may operate under the terms of the general permit pending the outcome of the public participation process and any contested case hearing, unless the Department determines that an unacceptable threat to public health, water quality, or aquatic resources may occur.

(n) Revisions to Approved Plans. The Department shall follow the public participation procedures of this subsection when an AFO proposes a revision to its approved plans that is significant, as determined by the Department, or for a CAFO as specified under the Federal Act.

(o) Interested Persons.

(i) The Department shall maintain a list of persons who have requested direct notification of an NOI and related plan submittals, either for a specific AFO or for a geographic location or area.

(ii) Upon receipt of a complete NOI or a corresponding required plan, the Department shall notify the interested persons either by electronic mail or U.S. mail that a document of potential interest has been received and that additional details may be available on the MDE website.

(iii) The Department shall provide a copy of the public notice of the preliminary approval in §N(3)(i) of this regulation to interested persons and provide them access to a copy of the preliminary approval via electronic mail or U.S. mail or through providing a link to the Department's website.

(iv) The Department shall also provide a copy of the notice of the preliminary approval to the persons identified in Regulation .01-2B(3)(a) and (b) of this chapter.

(p) Requests for confidential treatment of information shall be handled according to Regulation .01-1E(8) of this chapter.

(q) This subsection does not affect the authority and discretion of the Department to require an individual permit.

O. StormWater and Hydrostatic Test Water from Oil Terminals.

(1) Exceptions. This permit does not cover discharges:

(a) Of industrial process wastewater from oil terminals or hydrostatic test water from non-oil terminals; or

(b) From oil terminals with a total aggregate tank capacity of at least 5 million gallons of oil which have marine or pipeline transfer capabilities.

(2) Eligible Discharges. This permit covers all new and existing discharges of stormwater from storage tank dike and loading rack areas and hydrostatic test water from oil terminals to surface or ground waters of the State.

P. Treated Ground Water from Oil-Contaminated Ground Water Sources.

(1) Exceptions. This permit does not cover discharges of treated ground water contaminated with other volatile organic compounds or hazardous material (such as, but not limited to, TCE, TCA, DCE) other than oil.

(2) Eligible Discharges. This permit covers all new and existing discharges of treated ground water from oil-contaminated ground water sources which discharge to surface or ground waters of the State.

.09-1 Fees for General Discharge Permits.

A. Applicability.

(1) Intent. The Department may charge nonrefundable fees for certain general discharge permits as specified in this regulation.

(2) Exemptions. Discharges associated with the following dischargers are exempt from this regulation:

(a) Publicly owned treatment works;

(b) Other treatment works which treat only sewage; and

(c) Facilities or persons culturing or raising aquatic organisms in enclosed systems discharging less than 1,000,000 gallons per day.

B. General.

(1) Fees are based on the anticipated cost of program activities related to management of discharge to the waters of this State.

(2) Persons engaging in an activity covered under a general permit for which a fee or fees are charged shall submit a notice of intent (NOI) form requesting inclusion under the general permit, accompanied by the appropriate fees, before the initiation of the activity.

(3) The required fees shall be submitted with the Department's approved notice of intent (NOI) forms.

(4) The Department may refuse to complete processing on any NOI if the applicant fails or refuses to pay the application fee.

(5) When the Department questions a fee as submitted by the applicant, the Department shall notify the applicant in writing and a meeting shall be scheduled, if necessary, to resolve the dispute.

(6) Fees collected by the Department under this regulation shall be paid into the Clean Water Fund. The fees shall be used for activities that are related to the management of discharge to the waters of this State.

(7) The Department may require the retroactive payment of a general permit fee if the general permit becomes effective before the adoption of a regulation supporting this fee, if the fee was specified in the general permit at the time of general permit issuance.

C. Fees for General Storm Water Discharge Permits.

(1) Storm Water Associated with Industrial Activity.

(a) The permit fee for storm water discharges associated with industrial activity shall be either a one-time payment of \$550 or an annual payment of \$120. The \$550 fee shall be submitted with the NOI. The alternative \$120 annual payment shall be submitted with the NOI and annually by July 1 of each year.

(b) Facilities which began operating after September 29, 1995, and were registered under the original general permit for storm water associated with industrial activity will be credited \$100 for each full calendar year they did not operate between January, 1993, and December, 1996.

(c) The fee for facilities which begin operating after October 1, 1997, shall be prorated on a monthly basis.

(2) The application fees for storm water discharges associated with construction activity are as follows:

<i>Total Disturbed Area (Acres)</i>	<i>NOI Fee (Dollars)</i>
(a) 1 to less than 10	\$100;
(b) 10 to less than 15	\$500;
(c) 15 to less than 20	\$1,500;
(d) 20 and up	\$2,500;

D. Fee for Surface Coal Mine and Related Facilities Discharge.

(1) Annual Permit Fee.

The permittee shall pay an annual permit fee. The first annual fee shall be submitted to the Department with the NOI form. The Department will bill the permittee annually, and the fee shall be paid by the anniversary of the permit issuance each year after the first year.

(2) The annual permit fee is based on the total flow volume of effluent discharged from the facility, as determined by the storm water runoff volume calculation in §D(3) of this regulation.

<i>Average Discharge Volume (Gallons Per Day)</i>	<i>Annual Permit Fee (Dollars Per Year)</i>
Less than 1,000	\$175
1,000—5,000	\$525
5,001—50,000	\$1,100
50,001—100,000	\$2,100
100,001—250,000	\$3,100

(3) Calculation of Storm Water Runoff Volume. Storm water runoff volume is determined by the following method:

(a) Annual storm water runoff volume (gallons/day) = Annual rainfall (feet) × drainage area (square feet) × 7.48 × 0.15;

(b) Average storm water runoff volume (gallons/day) = Annual storm water runoff volume divided by 365.

(4) Alternative Storm Water Calculation. As an alternative to the method in §D(3) of this regulation, the permittee may submit a report to the Department which contains calculations of the average daily storm water runoff from the permitted facility. The Department shall make the final decision in determining the acceptability of the alternative method.

E. Fee for Discharges from Seafood Processors. Permit Fee.

(1) The permittee shall pay an annual permit fee. The first annual fee payment shall be submitted to the Department with the NOI form.

(2) The permit fee is based on the total volume of effluent discharged from the facility. The fees are:

<i>Average Daily Discharge Volume (Gallons Per Day)</i>	<i>Annual Permit Fee</i>
Less than 1,000	\$120
1,000—5,000	\$440

5,001—50,000	\$1,050
50,001—100,000	\$2,100
100,001—500,000	\$3,200

(3) The Department will bill the permittee annually, and the fee shall be paid each year by the anniversary date of the permit.

F. Fees for Discharges from Mineral Mines, Quarries, Borrow Pits, and Concrete and Asphalt Plants.

(1) Exemptions. Mineral mines, quarries, and borrow pits which discharge mining wastewater, process generated wastewater, and storm water to ground water only are exempt from the permit fee.

(2) Permit Fee.

(a) The permittee shall pay an annual permit fee. The first annual fee payment shall be submitted to the Department with the NOI form.

(b) The permit fee is based on the total volume of effluent discharged from the facility. The fees are:

<i>Average Daily Discharge Volume (Gallons Per Day)</i>	<i>Annual Permit Fee</i>
Less than 1,000	\$110
1,000—5,000	\$275
5,001—50,000	\$600
50,001—100,000	\$1175
100,001—250,000	\$1740
250,001—1,000,000	\$2300
Greater than 1,000,000	\$2875

(c) The Department will bill the permittee annually, and the fee shall be paid each year by the anniversary date of the permit.

G. Fees for Discharges from Dewatering, Hydrostatic Testing, and Groundwater Remediation.

(1) Exemptions. Discharges from tanks, pipes, and other liquid containment structures associated with drinking water supplies are exempt from the permit fee.

(2) Permit Fee.

(a) The permittee shall pay a permit fee with the NOI form and each additional year the permit is held.

(b) The discharge permit fee is based on the total volume of effluent discharged from the facility. The permit fees for the first and subsequent years are:

<i>Average Daily Discharge Volume (Gallons Per Day)</i>	<i>One Year Fee</i>	<i>Fee Each Additional Year</i>
Less than 1,000	\$175	\$100
1,000—5,000	\$250	\$100
5,000—50,000	\$325	\$100

50,001—100,000	\$500	\$400
100,001—250,000	\$950	\$400
250,001—1,000,000	\$2000	\$400
Greater than 1,000,000	\$4000	\$1000

(c) The Department will bill the permittee annually, and the fee shall be paid each year by the anniversary date of the permit.

H. Fee for Discharges from Swimming Pools and Spas; Notice of Intent (NOI) Fee. Persons seeking coverage under this general permit shall submit an NOI together with a fee of \$100 for each facility. A fee is not required with the NOI submission for the registration of pools owned by municipalities, counties, or the State. Owners of pools or spas serving individual residences are not required to submit an NOI or pay a fee.

I. Fee for Discharges from Marinas; NOI Fee.

(1) Persons seeking coverage under this general permit shall submit an NOI together with the following fee depending upon the number of slips available at the marina:

<i>Number of Slips</i>	<i>Fee</i>
200 or more slips	\$500
100 or more and fewer than 200 slips	\$400
50 or more and fewer than 100 slips	\$300
10 or more and fewer than 50 slips	\$200
fewer than 10 slips	\$100

(2) Facilities already registered under 92-GP-0001 shall pay the lesser of the above fee or a fee of \$350 before September, 1997, to register for this permit.

J. Fee for Discharges from Concentrated Animal Feeding Operations.

(1) A CAFO shall pay an annual permit fee. The first annual fee payment shall be submitted to the Department with the NOI form. The Department will bill the permittee annually, and the fee shall be paid annually not later than the anniversary of the effective date of the permit. The following permit fees shall be collected based on the size category of the facility defined in Table 1 under Regulation 26.08.03.09A(3):

Size Category	Large	Medium	Small
Annual Permit Fee	\$1200	\$600	\$120

(2) If the Department questions the fee submitted by the permittee, the Department shall follow the procedure in §B(5) of this regulation.

K. Storm Water and Hydrostatic Test Water from an Oil Terminal and Treated Ground Water NOI Fees. A person who intends to obtain coverage under the general discharge permit for storm water and hydrostatic test water from oil terminals or the general discharge permit for treated ground water from oil-contaminated ground water sources shall submit to the Department a fee of \$120 with the NOI.

.10 Permit Review and Modification.

A. General.

(1) The Department may review or modify any State discharge permit or other written authorization describing required performance for specific activities and operations under the procedures set forth in this regulation.

(2) When a permit is modified, only the conditions subject to modification are reopened.

B. Permit Review. The Department of the Environment may review any permit which it has issued in order to determine whether the:

(1) Conditions of the permit have been complied with; and

(2) Permit should properly be modified, suspended, or revoked.

C. Minor Modification of Permits.

(1) The Department may modify a permit to make minor modifications in the permitted activity.

(2) A minor modification requested by a permittee shall be in writing.

(3) Minor modifications may only:

(a) Correct typographical errors;

(b) Require more frequent monitoring or reporting by the permittee;

(c) Change an interim compliance date in a schedule of compliance, provided the new date is not more than 120 days after the date specified in the existing permit and does not interfere with attainment of the final compliance date requirement;

(d) Allow for a change in ownership or operational control of a facility when the Department determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittees has been submitted to the Department;

(e) Change the construction schedule for a discharger which is a new source if the change does not affect the discharger's obligation to have all pollution control equipment installed and in operation before discharge;

(f) Delete a point source outfall when the discharge from that outfall is terminated and does not result in discharge of pollutants from other outfalls except in accordance with permit limits; or

(g) Incorporate conditions of a pretreatment program that has been approved in accordance with COMAR 26.08.08.

D. Major Permit Modification Request by Permittee.

(1) A permittee may request modification of the permit by submitting a written request to the Department.

(2) Upon receipt, the Department shall review the request and promptly notify the permittee of its decision.

(3) If the Department decides to grant the permittee's request, permit modifications shall be processed by the Department according to Regulations .01-----.02-4 of this chapter.

(4) The Department of the Environment, upon written request of the applicant, may revise or modify a schedule of compliance without a hearing if:

(a) It determines good and valid cause exists for the revision or modification, such as an act of God, materials shortage, or other event over which the permittee has no control; and

(b) Within 30 days following receipt of notice from the Department, the Administrator of the EPA, or his designated representative, does not object in writing.

.10-1 Permit Suspension and Revocation.

A. Action on Permit Violation.

(1) Under conditions other than emergency, if the Department determines that there has been a violation of any term or condition of a permit, the Department shall serve a written complaint upon the permittee specifying the nature of the violation. Subsequent to, or concurrent with, service of the complaint, the Department may exercise one of the following options, under the provisions of Environment Article, §9-335, Annotated Code of Maryland:

(a) Issue an order requiring necessary corrective action to be taken within the time prescribed in its order. A person named in the order may request in writing a hearing before the Department not later than 10 days after the date the order is served, in which case a hearing shall be scheduled within 10 days from receipt of the request. A decision shall be rendered within 10 days from the date of the hearing.

(b) Require the alleged violator to file a written report regarding the alleged violation.

(c) Require the alleged violator to appear before the Department at a time and place the Department specifies to answer the charge outlined in the complaint.

(d) Require the alleged violator to file a written report regarding the alleged violation and appear before the Department at a time and place the Department specifies to answer the charges outlined in the complaint.

(2) Every order the Department issues under this regulation shall be served on the person affected according to Environment Article, §9-336, Annotated Code of Maryland. The order shall become effective immediately according to the order's terms upon service.

(3) If the Department exercises the option provided by §A(1)(b) of this regulation, the alleged violator may request in writing a hearing before the Department not later than 10 days after the date that notice of the requirement of the written report is served.

(4) The appearance of the alleged violator before the Department under the options provided by §A(1)(c) or (d) of this regulation constitutes an administrative hearing and the party has the right of any party in a contested case provided in State Government Article, Title 10, and Environment Article, Title 1, Annotated Code of Maryland.

(5) If the Department exercises any of the options provided by §A(1)(a), (c), or (d) of this regulation, the Department shall notify the permittee of the consequences of not attending the hearing or, in the case of option §A(1)(b), not filing the written report.

(6) If the Department exercises the option provided by §A(1)(b), (c), or (d) of this regulation, it may not issue an order requiring corrective action to be taken as a result of the alleged violation before expiration of the time set for filing any report and holding any hearing required under these sections. After that, the Department may issue an order requiring necessary corrective action be taken within the time prescribed in the order. A person is not entitled to a hearing before the Department as a result of this order.

(7) Notice of a hearing or of a requirement that a written report be filed shall be served on the alleged violator under Environment Article, 9-335 ---- 9-337, Annotated Code of Maryland, not less than 10 days before the time set for the hearing or filing of a report.

(8) Requests for hearings shall be processed and the hearings conducted according to State Government Article, Title 10, and Environment Article, Title 1, Annotated Code of Maryland, and the requirements of this chapter.

B. Administrative Action With Regard to Permit. If the permittee fails to comply with the requirements of an administrative order under §A(1) of this regulation, a permit may be modified or suspended. Modification or suspension of a permit shall be effective without stay upon receipt by the permittee of appropriate notice. Upon written request for a hearing by the permittee in accordance with the procedure specified in §A(3) of this regulation, a hearing shall be held, but the administrative action may not be stayed pending the hearing.

C. Emergency Action.

(1) The Department may summarily modify or suspend a permit when the Department finds that the protection of public health, safety, or welfare requires immediate emergency action.

(2) The emergency modification or suspension of a permit shall be effective without stay upon receipt by the permittee of appropriate notice.

(3) The Department shall notify the permittee in writing that the permit has been modified or suspended for emergency reasons. The notice shall include:

- (a) The finding of necessity for suspension or modification;
- (b) The reasons that support the findings;
- (c) A statement that the permittee has the right to a hearing concerning the Department's action;
- (d) A statement that the permittee has 10 days to request a hearing;
- (e) The procedure for requesting a contested case hearing;
- (f) The consequences of not requesting or not attending a hearing; and
- (g) A statement that the permit suspension or modification is effective without stay upon receipt by the permittee.

D. Permit Revocation.

(1) A permit may be revoked after notice to the permittee and opportunity for a hearing, if the Department determines that any of the following have occurred:

- (a) The permittee has failed to comply with the requirements of an administrative action according to §A, B, or C of this regulation;
- (b) False or inaccurate information was contained in the application for the permit;
- (c) Conditions or requirements of the permit have been or are about to be violated;
- (d) Substantial deviation from plans, specifications, or requirements has occurred;
- (e) The permittee has failed to permit an authorized representative of the Department upon presentation of proper credentials to:
 - (i) Enter at any reasonable time upon permittee's premise where a point source is located, pertinent operations are conducted, or records are required to be kept under terms and conditions of the permit;
 - (ii) Have access to and copy any records required to be kept under terms and conditions of the permit;
 - (iii) Inspect facilities to ensure compliance with the conditions of the permit;

(iv) Inspect any monitoring equipment or method required in the permit; or

(v) Sample any discharge or pollutants;

(f) Change in conditions exists requiring temporary or permanent reduction or elimination of the permitted operation or discharge;

(g) Any State or federal water quality stream standard or effluent standard has been or is threatened to be violated; or

(h) Any other good cause exists for revoking the discharge permit.

(2) The permittee has the right to a hearing concerning the revocation of the permit upon a request in writing not later than 10 days after the date on which the revocation notice is served. The Department shall schedule a hearing within 10 days from receipt of the request and give a decision within 10 days from the date of the hearing.

E. The hearings in B, C, and D of this regulation shall be conducted according to State Government Article, Title 10, and Environment Article, Title 1, Annotated Code of Maryland.

.11 Discharge Permit Fees.

A. General Requirements.

(1) Fees collected by the Department under this regulation shall be paid into the Maryland Clean Water Fund. The fees shall be used for activities that are related to identifying, monitoring, and regulating the proper discharge of effluent into waters of the State including program development of these activities.

(2) Persons or facilities holding or obtaining State discharge permits, except for those in categories listed below, shall pay both an annual permit fee and an application fee, including any additional cost as required in §C(10) of this regulation:

(a) Publicly owned treatment works;

(b) Other treatment works which treat only sewage;

(c) Persons covered under a general permit as described in Regulations .08 and .09 of this chapter; or

(d) Facilities or persons culturing or raising aquatic organisms in enclosed systems discharging less than 1 million gallons per day.

(3) Both permit fees and application fees are based on the total flow of all effluents discharged from a facility except for:

(a) Uncontaminated stormwater runoff; and

(b) Thermal discharge flows which have previously been evaluated by the Department in accordance with COMAR 26.08.03.03C(2).

B. Permit Fees.

(1) The permit fee is based on the anticipated:

(a) Cost of monitoring and regulating the permitted facility; and

(b) Needs for program development activities related to management of discharge of pollution to waters of this State.

(2) The permit fee is based on the total flow volume of effluent discharged from the facility. The fees are as follows:

Average Discharge Volume (gallons per day)	Permit Fee (per year)
Less than 1,000	\$100
1,000-----5,000	400
5,001-----50,000	1,000
50,001-----100,000	2,000
100,001-----250,000	3,000
250,001-----1,000,000	4,000
Greater than 1,000,000	5,000

(3) The Department will calculate permit fees annually and will bill the permittee. The permit fees shall be paid within 30 days of receipt of the bill, unless the permittee questions the calculations or assumptions, or both, used to arrive at the fee. In which case, the Department shall be notified in writing within 15 days of receipt of the bill, and a meeting shall be scheduled, if necessary, within 10 days to resolve the dispute.

(4) Permit fees shall be paid by July 1 of each year to cover the expenses of the ensuing fiscal year. Fees for those permits which will be in effect for less than the full fiscal year shall be prorated for the number of months of the fiscal year during which the permit is in effect.

(5) The Department may refuse to issue or renew a discharge permit or may revoke a discharge permit if the applicant fails or refuses to pay the permit fee.

C. Application Fees.

(1) An application fee shall be paid for:

- (a) An application for a new discharge permit;
- (b) An application to renew a discharge permit; or

(c) A request to modify a discharge permit if the modification is considered significant by the Department.

(2) The application fee is based on the cost of the permit procedure.

(3) The minimum application fee is \$50.

(4) The application fee is calculated by the following formula: Application fee = volume fee x industry factor x water use factor.

(5) Volume Fees.

(a) Volume fees are determined as follows:

Average Discharge Volume (gallons per day)	Volume Fee
Less than 1,000	\$50
1,000-----5,000	100
5,001-----50,000	150
50,001-----100,000	200
100,001-----250,000	500
250,001-----1,000,000	1,000
Greater than 1,000,000	2,000

(b) Volume fees for permit modifications are based only on the discharge volume associated with those operations affected by the modification.

(6) Industry Factors.

(a) The industry factors are determined as follows:

Industry Type	Industry Factor
Primary industry as listed in 40 CFR Part 122, Appendix A, which is incorporated by reference	5
Non-primary industry but on the Department's major facility list	5
All others	1

(b) Facilities which wash cars, trucks, or other vehicles are not considered to be primary industries for the purposes of §C(6).

(7) Water Use Factor.

(a) The water use factor is determined as follows:

Water Use	Water Use Factor
Process use	2.0
Cooling	
Once-through-----no additives	0.5
Once-through-----with additives	1.0
Contact	1.5
Other (includes but is not limited to boiler blowdown, cooling tower blowdown, steam condensate, sewage, and stormwater runoff)	1.0

(b) When a facility has more than one type of water use, the highest of the applicable water use factors should be used.

(8) The Department will calculate the application fee upon receipt of an application for a new permit, permit renewal, or permit modification and will bill the applicant. The application fee shall be paid within 30 days of receipt of the bill, unless the permittee questions the calculations or assumptions, or both, used to arrive at the fee. In which case, the Department shall be notified in writing within 15 days of receipt of the bill, and a meeting shall be scheduled, if necessary, within 10 days to resolve the dispute.

(9) The Department may refuse to complete processing on any new or renewed permit or on any permit modification if the applicant fails or refuses to pay the application fee.

(10) In addition to the application fee calculated in accordance with §C(4) of this regulation, the Department shall assess the applicant for any cost associated with evaluating or reviewing mixing zone studies, variance petitions, site-specific criteria studies, chemical or biological translator studies, or any other studies submitted as part of an application to determine discharge permit requirements. For the purposes of this assessment:

(a) The minimum fee for each component (for example, mixing zone, variance, etc.) will be established at \$5,000; and

(b) The Department shall:

(i) Obtain and provide to the applicant an estimate for any additional costs incurred as part of the evaluation or review,

(ii) Obtain the applicant's concurrence, and

(iii) Bill the applicant before the beginning of the evaluation or review.

D. Calculation of Stormwater Runoff Volume. Stormwater runoff volume shall be determined by the following method:

(1) Annual stormwater runoff volume = Annual rainfall (feet) x drainage area (square feet) x 7.48 x runoff coefficient;

(2) Average stormwater runoff volume = Annual stormwater runoff volume divided by 365;

(3) As an alternative to this method, the permittee may submit a report to the Department which contains calculations of the average daily stormwater runoff from the permitted facility.

E. For storm water discharges eligible for coverage under Regulation .09 of this chapter, the portion of the permit fee calculated in Regulation .11 of this chapter may not exceed \$100 per year.

Administrative History

Effective date: September 1, 1974 (1:1 Md. R. 33)

COMAR 10.50.01.08, .09, .12, and .14 recodified to COMAR 26.08.04.01, .02, .03, and .04, respectively

COMAR 10.50.01.08J-1 recodified to COMAR 26.08.08.01—.04

Regulation .01B, N amended effective August 3, 1981 (8:15 Md. R. 1308)

Regulation .01E amended effective June 6, 1983 (10:11 Md. R. 976)

Regulation .01G amended effective July 27, 1987 (14:15 Md. R. 1660)

Regulation .01J amended effective May 24, 1982 (9:10 Md. R. 1022); December 19, 1983 (10:25 Md. R. 2269); June 17, 1985 (12:12 Md. R. 1165); August 26, 1985 (12:17 Md. R. 1706)

Regulation .01M amended effective June 17, 1985 (12:12 Md. R. 1166)

Regulation .01N adopted effective March 9, 1979 (6:5 Md. R. 444)

Regulation .02 adopted effective December 7, 1981 (8:24 Md. R. 1935)

Regulation .03A amended effective December 19, 1983 (10:25 Md. R. 2269)

Regulation .04 adopted effective February 25, 1985 (12:4 Md. R. 360)

Chapter revised effective June 27, 1988 (15:13 Md. R. 1556)

Regulation .01 amended effective April 15, 1991 (18:7 Md. R. 775)

Regulation .01 amended and recodified to Regulations .01—.01-3 effective November 6, 1995 (22:22 Md. R. 1670)

Regulation .01B amended effective September 27, 1993 (20:19 Md. R. 1473); January 12, 2009 (36:1 Md. R. 24); December 22, 2014 (41:25 Md. R. 1486); September 28, 2015 (42:19 Md. R. 1229)

Regulation .01G amended effective June 7, 1993 (20:11 Md. R. 917)

Regulation .01-1E amended effective March 25, 1996 (23:6 Md. R. 477)

Regulation .01-3A, C amended effective March 25, 1996 (23:6 Md. R. 477)

Regulation .02 amended effective April 16, 1990 (17:7 Md. R. 854); April 15, 1991 (18:7 Md. R. 775); June 7, 1993 (20:11 Md. R. 917); November 6, 1995 (22:22 Md. R. 1670)

Regulations .02-1—.02-4 adopted effective June 7, 1993 (20:11 Md. R. 917)

Regulation .02-1C amended effective April 28, 2014 (41:8 Md. R. 474)

Regulation .02-3 amended effective November 6, 1995 (22:22 Md. R. 1670)

Regulation .02-3C amended effective July 5, 2004 (31:13 Md. R. 995)

Regulation .03 amended effective April 16, 1990 (17:7 Md. R. 854); November 6, 1995 (22:22 Md. R. 1670)

Regulation .03C amended effective June 7, 1993 (20:11 Md. R. 917)

Regulation .04 amended effective November 6, 1995 (22:22 Md. R. 1670)

Regulation .04C amended effective May 1, 1989 (16:8 Md. R. 911); April 16, 1990 (17:7 Md. R. 854); April 28, 2014 (41:8 Md. R. 474)

Regulation .06 amended effective November 6, 1995 (22:22 Md. R. 1670)

Regulation .06A amended effective April 15, 1991 (18:7 Md. R. 775)

Regulation .07 amended effective April 15, 1991 (18:7 Md. R. 775)

Regulation .08 amended effective November 6, 1995 (22:22 Md. R. 1670); March 25, 1996 (23:6 Md. R. 477)

Regulation .08B amended effective April 15, 1991 (18:7 Md. R. 775)

Regulation .08C, D amended effective September 27, 1993 (20:19 Md. R. 1473)

Regulation .09 amended effective September 27, 1993 (20:19 Md. R. 1473)

Regulation .09H adopted effective October 24, 1994 (21:21 Md. R. 1815)

Regulation .09I—K adopted effective July 31, 1995 (22:15 Md. R. 1122)

Regulation .09J amended effective November 23, 2015 (42:23 Md. R. 1435)

Regulation .09K amended effective September 29, 2014 (41:19 Md. R. 1082)

Regulation .09L—N adopted effective December 16, 1996 (23:25 Md. R. 1786)

Regulation .09N amended effective January 12, 2009 (36:1 Md. R. 24)

Regulation .09O, P adopted effective April 7, 1997 (24:8 Md. R. 617)

Regulation .09-1 adopted effective September 27, 1993 (20:19 Md. R. 1473)

Regulation .09-1A, C amended and K adopted effective April 7, 1997 (24:8 Md. R. 617)

Regulation .09-1B amended effective October 24, 1994 (21:21 Md. R. 1815); July 31, 1995 (22:15 Md. R. 1122)

Regulation .09-1C amended effective February 14, 1994 (21:3 Md. R. 197); October 20, 1997 (24:21 Md. R. 1453)

Regulation .09-1C amended as an emergency provision effective March 1, 2003 (30:6 Md. R. 417); amended permanently effective June 23, 2003 (30:12 Md. R. 792)

Regulation .09-1D adopted effective October 24, 1994 (21:21 Md. R. 1815)

Regulation .09-1D amended effective February 21, 2000 (27:3 Md. R. 327)

Regulation .09-1E—G amended effective August 21, 2000 (27:16 Md. R. 1526)

Regulation .09-1G amended effective September 29, 2014 (41:19 Md. R. 1082)

Regulation .09-1H—J adopted effective December 16, 1996 (23:25 Md. R. 1786)

Regulation .09-1J amended effective January 12, 2009 (36:1 Md. R. 24)

Regulation .09-1K amended effective December 21, 2015 (42:25 Md. R. 1547)

Regulation .10 amended and recodified to Regulations .10 and .10-1 effective November 6, 1995 (22:22 Md. R. 1670)

Regulation .10C amended effective April 15, 1991 (18:7 Md. R. 775)

Regulation .11A amended effective July 9, 1990 (17:13 Md. R. 1614); June 7, 1993 (20:11 Md. R. 917)

Regulation .11B amended effective April 17, 1989 (16:7 Md. R. 813); June 21, 1993 (20:12 Md. R. 997)

Regulation .11C amended effective April 15, 1991 (18:7 Md. R. 775); June 7, 1993 (20:11 Md. R. 917); June 21, 1993 (20:12 Md. R. 997)

Regulation .11E adopted effective October 20, 1997 (24:21 Md. R. 1453)

Title 26 DEPARTMENT OF THE ENVIRONMENT

Subtitle 08 WATER POLLUTION

Chapter 05 Certification of State Water Quality Laboratories

Authority: Environment Article, Title 9, Subtitle 10, Annotated Code of Maryland

.01 Scope.

The purpose of these regulations is to provide a procedure by which the Department of the Environment may certify that water quality laboratories are capable of performing in an acceptable manner microbiological, chemical, physical, and radiochemical analyses on water samples from public water supplies. Since owners of public water supplies are required through various State and federal programs to monitor the quality of drinking water in their systems, it is necessary to have available water quality laboratories that produce data recognized as valid by the enforcement agencies. These regulations establish standards of operation for these water quality laboratories.

.02 Incorporation by Reference.

A. In this chapter, the following documents are incorporated by reference.

B. Documents Incorporated.

(1) Code of Federal Regulations (CFR) — 40 CFR 141 (July 1, 2013):

(a) Record Maintenance (40 CFR §141.33) revised July 1, 2010;

(b) Lead and Copper Rule (40 CFR §§141.80 — 141.91) revised July 1, 2010; and

(c) Reporting Requirements (40 CFR §141.31).

(2) Manual for the Certification of Laboratories Analyzing Drinking Water (EPA 815-R-05-004, January 2005) and Supplement 1 to the Fifth Edition of the Manual for the Certification of Laboratories Analyzing Drinking Water (EPA 815-F-08-006, June 2008).

.03 Definitions.

A. "Analyst" means a person responsible for performing tests and reporting analytical results.

B. "Certification Authority" means the Secretary or the Secretary's designee who has signature authority for all certification decisions.

C. "Certification officers" means the Department personnel who have the responsibility of certifying water quality laboratories under their purview.

D. "Denial" means a refusal of certification for a specific method or the analysis of specific parameters, or refusal of initial certification for a water quality laboratory.

E. "Department" means the Department of the Environment.

F. "Director" means director of a laboratory.

G. "Laboratory" means a water quality laboratory.

H. "Laboratory quality assurance" means an integrated system of management activities involving planning, quality control, quality assessment, reporting, and quality improvement to ensure that laboratory results meet defined standards of quality with a stated level of confidence.

I. "NELAP" means the National Environmental Laboratory Accreditation Program, a program operated by TNI to provide certification for environmental laboratories.

J. "Person" means an individual, corporation, company, association, partnership, state, county, municipal corporation, federal agency, special taxing area, or any other entity.

K. "Provisionally certified" means a certification status for a laboratory that has deficiencies but demonstrates its ability to consistently produce valid data within the acceptance limits specified in the National Public Drinking Water Regulation (NPDWR), and within the policy required by their certification authority.

L. "Quality Assurance Manual" means a document that describes the water quality laboratory's Quality Assurance Program, which includes the organizational structure, policies, and procedures for training, sampling, reporting, corrective action, ethics, preventative maintenance, pollution control, and disposal.

M. "Quality assurance officer" means the laboratory personnel responsible for keeping the laboratory's Quality Assurance Manual updated, and ensuring that the quality assurance practices are implemented.

N. "Revocation" means a cancellation of a valid laboratory certification or for a specific approved drinking water method.

O. "Secretary" means the Secretary of the Department of the Environment.

P. "TNI" means The NELAC Institute. The institute is a nonprofit organization for the development of standards for the accreditation of laboratories and the evaluation and approval of accreditation bodies.

Q. "Water quality laboratory" means a facility that examines public drinking water for the purpose of identifying or measuring microbiological, chemical, physical, or radiochemistry parameters to determine its compliance with, or produces laboratory data for enforcement of, the federal Safe Drinking Water Act or State standards or public drinking water.

R. "Water quality laboratory supervisor" means a person who directs the day-to-day activities of a water quality laboratory and is responsible for assuring the quality of laboratory results.

.04 Certification for a Water Quality Laboratory.

A. A water quality laboratory shall obtain a certification from the Department before the water quality laboratory may analyze compliance samples in this State.

B. The Department shall certify a water quality laboratory that meets the requirements of this chapter and Environment Article, Title 9, Subtitle 10, Annotated Code of Maryland.

C. Laboratory Certificate.

(1) The Department shall identify in the certificate the parameters and test methods for which the water quality laboratory is certified.

(2) The water quality laboratory shall conspicuously display its certificate in a location visible to the public at the laboratory.

(3) The Department may approve, deny, or classify as provisional parameters and test methods requested for certification by the water quality laboratory.

D. Water quality laboratories shall obtain a USEPA identification number from the Office of Ground Water and Drinking Water Technical Support Center.

E. A laboratory shall analyze a minimum of one drinking water compliance sample per year to be eligible for certification or recertification as a water quality laboratory.

F. Certificates are nontransferable between water quality laboratories, laboratory locations, or water quality laboratory supervisors.

G. Only a water quality laboratory certified pursuant to these regulations may be called a certified water quality laboratory, and a water quality laboratory may not represent to the public by title, description of services, methods or procedure, or otherwise make any statement, written or oral, intended or likely to mislead the public with respect to its certification status.

H. The Department may not approve the initial certification for a parameter or test method for an in-State laboratory until the Department has inspected the laboratory. An on-site evaluation will be performed in accordance with Regulation .08 of this chapter.

.05 General Requirements for a Certified Water Quality Laboratory.

A. Quality Assurance Manual — Minimum Criteria.

(1) Space Requirements. Each certified water quality laboratory shall have adequate space, facilities, and equipment to provide test results with accuracy, precision, and safety.

(2) Use of Approved Procedures. All certified water quality laboratories shall use analytical procedures approved by the Certification Authority or the U.S. Environmental Protection Agency.

(3) Collection and Preservation Procedures.

(a) A water quality laboratory shall collect and preserve water samples in accordance with procedures approved by the U.S. Environmental Protection Agency for the analysis of drinking water samples as incorporated by reference in Regulation .02 of this chapter, and "Standard Methods for the Examination of Water and Wastewater" as approved by U.S. Environmental Protection Agency, American Public Health Association, National Technical Information Service, or other approved agency.

(b) A water quality laboratory shall identify and describe its sample collection procedures in its Quality Assurance Manual.

(c) Water samples collected for the purpose of compliance with these regulations shall be collected by an individual approved by the Department.

(d) A water quality laboratory that is certified shall accept only samples that are properly labeled, and for which there is assurance that the samples have been collected, preserved, processed, stored, and transported in such a manner as to assure the identity and the stability of the sample with respect to the requested tests or analyses, or if the stability of the sample has not been assured, the water quality laboratory shall refuse the sample.

(e) A supervisor of a certified water quality laboratory shall implement and document sample rejection policies and procedures for each sample that is not suitable for analysis.

(4) Reporting of Laboratory Results.

(a) A water quality laboratory report of analytical results shall be signed by the water quality laboratory supervisor or the supervisor's designee.

(b) Internal water quality laboratory records shall identify the person actually performing the analyses and the Maryland Laboratory Identification Number. The water quality laboratory shall make internal water quality laboratory records available to the Department.

(c) When a water quality laboratory reports compliance results on behalf of a public water system, the water quality laboratory shall comply with the reporting requirements specified in 40 CFR §141.31.

(5) Tests to be Performed by Qualified Analysts. The water quality laboratory supervisor shall assure that all tests are performed by qualified analysts.

(6) Supervisors Limited to Two Laboratories. A water quality laboratory supervisor may not be responsible for the supervision of more than two certified water quality laboratories.

(7) Maintenance of Laboratory Records. Each certified water quality laboratory shall comply with the following requirements:

(a) A suitable record of each test result shall be kept for a period of at least 5 years or until the next certification data audit is completed;

(b) If the laboratory reports on behalf of a public water system, records for chemistry and radiochemistry shall be held for 10 years (40 CFR §141.33) and records for lead and copper shall be held for 12 years (40 CFR §141.91);

(c) All records shall be maintained in a manner that permits ready identification and accessibility;

(d) Certified water quality laboratory records and reports shall identify samples sent to other certified water quality laboratories for analyses, and shall identify the certified water quality laboratory performing the test; and

(e) Laboratory records shall be available to the Department for inspection.

(8) Changes in ownership, mergers, or laboratory closures do not eliminate the requirements in §A(7) of this regulation.

B. The laboratory shall implement the provisions of the Quality Assurance Manual.

.06 Application for Certification.

A. An application is required for:

- (1) Certification for microbiology, chemistry, or radiochemistry; or
- (2) Renewal of certification.

B. An application for water quality laboratory certification shall be submitted to the Department on a form provided by the Department, and shall include, but not be limited to, the following information:

- (1) Name, address, and valid phone number of the water quality laboratory;
- (2) Name of the water quality laboratory owner or director;
- (3) A listing of the tests for which certification is requested;
- (4) Description of facilities, equipment, and methodology;
- (5) The name, education, experience, and training of the water quality laboratory supervisor;
- (6) The name, education, experience, and training of all water quality laboratory analysts;
- (7) The approximate number of tests by category performed annually by the water quality laboratory;
- (8) The laboratory's Quality Assurance Manual;
- (9) Valid Federal Employer Identification Number (FEIN) as required by Environment Article, §1-203, Annotated Code of Maryland;
- (10) A copy of the valid and current water quality laboratory certification that has been issued by any other state or by NELAP, as applicable;
- (11) Proficiency test results for each certified parameter and approved test method; and
- (12) Fees, if applicable.

C. The laboratory owner, director, or quality assurance officer shall complete fully and sign the application.

.07 Fees.

A. A certified water quality laboratory in the State of Maryland, except a federal, State, or a local government laboratory, shall pay an annual certification fee of \$250 plus \$10 for each specific test and parameter combination for which certification is requested.

B. An out-of-State water quality laboratory shall pay a \$400 annual certification fee for all parameters certified by their home state or NELAP accrediting body.

C. The applicant for certification shall pay the fee at the time an application for certification or renewal of certification is submitted to the Department.

D. If a water quality laboratory submits its renewal application after the expiration date of its certification, it shall pay a late fee of \$100.

.08 On-Site Evaluation.

A. The Department may perform announced, or unannounced, on-site evaluations of the premises and operations of a water quality laboratory that is currently certified or that has applied for certification.

B. During an on-site evaluation, the Department may evaluate the adequacy of the quality assurance program, qualifications of personnel, adequacy of equipment, adequacy of the supervision, and compliance with these regulations.

C. An in-State water quality laboratory may not analyze regulated drinking water contaminants until the Department has conducted an on-site evaluation.

D. The Department may revoke the certification of a laboratory that refuses access for the on-site evaluation.

E. The water quality laboratory shall notify the Department of any on-site evaluations performed by other states or third-party organizations that include the review of drinking water test methods.

.09 Personnel Qualifications.

A. The water quality laboratory shall have staff that is trained in the approved drinking water methods to ensure that the water quality laboratory generates valid and accurate test results.

B. To maintain certification, a water quality laboratory shall continue to meet the education and training criteria identified in the Manual for the Certification of Laboratories Analyzing Drinking Water, which is incorporated by reference in Regulation .02 of this chapter.

C. Water Quality Laboratory Supervisor.

(1) The supervisor of a certified water quality laboratory performing chemical analyses on water samples shall have a bachelor's degree in chemistry or a bachelor's degree in a closely related science with a minimum of 12 semester hours of chemistry work and a minimum of 2 years experience in the performance of chemical tests routinely performed by the water quality laboratory except as allowed under §D of this regulation.

(2) The supervisor of a certified water quality laboratory performing microbiological analyses on water samples shall have a bachelor's degree in microbiology or a bachelor's degree in a closely related science with a minimum of one college level microbiology course or equivalent and a minimum of 2 years experience in the performance of microbiological tests routinely performed by the water quality laboratory except as allowed by §D of this regulation.

D. Minimum Education Waiver.

(1) The certification officer may waive the minimum education requirements as specified in the Manual for the Certification of Laboratories Analyzing Drinking Water on a case-by-case basis for experienced analysts or water quality laboratory supervisors.

(2) If a waiver is granted, the certification officer shall document the decision and justification for the waiver in writing.

(3) The waiver is not transferrable to another water quality laboratory and may be subject to additional review or approval

(4) A water quality laboratory shall keep a copy of the waiver available for inspection.

.10 Laboratory Quality Assurance Program.

A. Quality Assurance Manual.

(1) Each certified water quality laboratory shall establish a quality assurance program consistent with U.S. Environmental Protection Agency Laboratory Certification Manual criteria or with TNI standards, if applicable.

(2) A water quality laboratory's Quality Assurance Manual shall include a description of its quality assurance program.

(3) The quality assurance officer for a laboratory is responsible for maintaining the quality assurance manual.

(4) A water quality laboratory shall submit its Quality Assurance Manual for review to the Department as part of the initial certification application.

(5) A water quality laboratory shall submit in writing any revisions to a Quality Assurance Manual if there is a change in laboratory operations or if the Quality Assurance Manual is requested by the Department.

B. An acceptable quality assurance program shall include the following:

(1) A preventive maintenance program that ensures proper functioning of all instruments and equipment;

(2) Regular operational checks and calibrations to assure proper operation and standardization of equipment, instruments, and reagents;

(3) Routine testing of standard reference samples and other quality control materials. Quality control checks on reagents and media utilized in the performance of tests;

(4) Maintenance of quality control records, which will support the reliability of all procedures performed and which shall be kept on file and readily available for a period of 5 years;

(5) Satisfactory participation in a proficiency test program administered under NELAP or a TNI approved accredited proficiency test body, to be performed for every method and parameter requested for certification; and

(6) The analysis of proficiency testing samples at a frequency necessary to evaluate the performance of any certified water quality laboratory.

C. The water quality laboratory supervisor shall assure that a copy of the results of the proficiency testing analyses are forwarded directly to the Department from the approved proficiency test provider within 30 days of receipt.

D. Proficiency Testing Evaluation.

(1) If there is not a valid proficiency test for each parameter and test method combination for the review period, the Department shall downgrade the laboratory's certification to a provisional status for the parameter and test method.

(2) Provisional certification for a parameter and test method is valid for 90 days.

(3) If the laboratory does not submit passing proficiency test results within the review period, the Department may revoke or deny certification for the parameter or test method that does not have a valid proficiency test report.

E. Test results may not be reported on samples when quality control samples included in the analysis are found to be outside acceptable analytical limits. The entire batch of samples in the test run shall be retested and analytical data may not be reported unless quality control samples for the test run are within acceptable limits.

F. The supervisor shall certify that each test or analysis is accurate and valid and that the test or analysis was performed in accordance with approved EPA methods for drinking water.

.11 Evaluation Procedure.

A. Documentation of Corrective Actions.

(1) If a certified water quality laboratory is found to be in noncompliance with these regulations, the water quality laboratory shall submit documentation of corrective action to the Department.

(2) If a certified water quality laboratory is found to be in noncompliance with an on-site evaluation by another state or third-party organization, the laboratory shall forward copies of the associated on-site evaluation report or reports, the laboratory's follow up corrective actions, and notifications of certification status.

B. Adequacy of Corrective Action. On receipt of documentation of corrective action, the Certification Authority shall determine the adequacy of the action taken. If the corrective action is not adequate, the water quality laboratory may be required to test supplemental proficiency test samples or submit to an on-site inspection, or both. If the results of the on-site inspection or the results obtained through testing of unknown samples are unacceptable, the water quality laboratory shall be downgraded for the specific tests for which results are unacceptable or procedures, facilities, or records are not in compliance.

C. Continued Certification of Other Tests. The certified water quality laboratory shall continue to be certified for performance of all tests for which it has demonstrated satisfactory performance through testing of unknown samples and through compliance with these regulations.

D. Notification About Discrepancies. The Department shall advise owners and water quality laboratory supervisors in writing of all certified water quality laboratory discrepancies which may lead to revocation of certification, or a downgrade to provisional status.

.12 Downgrading of Certification for Performance of Specific Tests.

A. If a water quality laboratory is subject to a change in certification status, the Certification Authority shall notify the laboratory in writing of the intent to downgrade the parameter list for the certificate.

B. The Department may deny, make provisional, or revoke approval for one or more tests for the following reasons:

(1) The certified water quality laboratory fails to satisfactorily participate in an approved proficiency test program as indicated, or to pass the test for each parameter and test method combination;

(2) Failure to pass two or more consecutive proficiency tests;

(3) Failure to implement a Quality Assurance Program required under Regulation .10 of this chapter;

(4) Failure to pass an on-site evaluation;

(5) Failure to complete an acceptable corrective action plan to address the on-site evaluation report; or

(6) Failure to report compliance data in a timely manner, as specified in COMAR 26.04.01.

C. A water quality laboratory that is subject to a change in certification status under this section may not analyze those drinking water compliance samples for which approval has been denied or revoked by the Certification Authority.

D. A certified water quality laboratory that has been denied or revoked approval for performance of certain tests may regain approval by documenting corrective actions taken and by requesting a review of the corrective actions.

E. Reinstatement.

(1) The Certification Authority may require an on-site evaluation prior to reinstatement.

(2) Within 30 days after completion of the on-site review, the certification officer shall make a recommendation on the status to the laboratory and submit his report to the laboratory.

(3) The water quality laboratory shall respond with corrective actions within 30 days of the receipt of the on-site report.

(4) If the corrective actions are acceptable, the Certification Authority may reinstate approval subject to continued compliance with these regulations.

(5) If the corrective actions are not acceptable, the Certification Authority may require additional corrections.

F. Reinstatement Corrective Actions.

(1) If the Certification Authority does not reinstate approval for specific tests under this regulation, the Certification Authority shall provide the water quality laboratory supervisor with written notice of actions to be taken to correct deficiencies.

(2) The certified water quality laboratory supervisor may request a new review after 60 days from the date of the last review.

.13 Laboratory Certification Denial, Provisional Certification, and Revocation of Certification.

A. Denial of Initial Certification.

(1) The Department may deny initial certification to a water quality laboratory for any of the following reasons:

(a) Failure to comply with the minimum standards and qualifications required by this chapter;

(b) Failure to participate in or analyze proficiency test samples;

(c) Submittal of another water quality laboratory's results for proficiency tests;

(d) Intentionally false statements made on the application forms or any document associated with the certification application;

(e) Conviction of any violation of the laws of Maryland related to water quality;

(f) Fraudulently or deceptively obtaining or attempting to obtain a certification;

(g) Failure to pay the prescribed certification fees; or

(h) Failure to submit or complete acceptable corrective actions to an on-site evaluation.

(2) The denial of initial certification because a water quality laboratory does not satisfactorily meet certification criteria is not appealable.

B. Provisional Certification.

(1) The Department may downgrade a certification of a water quality laboratory for any of the following reasons:

(a) Violation of any provision of this chapter;

(b) Failure to report compliance data in accordance with COMAR 26.04.01 to the public water system or the Department in a timely manner, thereby preventing compliance with federal or State regulations or endangering public health;

(c) Failure to participate in or analyze proficiency test samples in a timely manner;

(d) Failure to report a change in ownership, management, location of facilities, or name of a water quality laboratory within a period of 30 days after the change has occurred; or

(e) Failure to submit or complete acceptable corrective actions to an on-site evaluation.

(2) Procedure for Downgrading Laboratory Status to Provisional.

(a) If a laboratory is subject to downgrading on the basis of criteria in §B of this regulation, the Certification Authority shall notify the laboratory director or owner by certified mail of its intent to downgrade within 30 days from becoming aware of the situation warranting downgrading.

(b) The laboratory director shall send a written response to the Certification Authority within 30 days of receipt of the letter specifying what immediate corrective actions are being taken and any proposed corrective actions that need the concurrence of the Certification Authority.

(c) The Certification Authority shall notify the laboratory in writing, by certified mail, within 14 days of receipt of the laboratory's response whether the corrective action taken is adequate or if the laboratory is being downgraded to provisionally certified status.

(d) Provisionally certified status may not exceed 90 days.

(3) Testing Under Provisional Certification.

(a) If the Certification Authority determines that the laboratory results are reliable, a provisionally certified laboratory may analyze drinking water samples for compliance purposes.

(b) The laboratory shall notify its clients of its downgraded status in writing on any report.

C. Revocation of Certification for the Water Quality Laboratory.

(1) The Department may revoke certification to a water quality laboratory for one or more of the following reasons:

(a) Failure to comply with the minimum standards and qualifications required by this chapter;

(b) Failure to participate in or analyze proficiency test samples, or to obtain acceptable laboratory results of tests required on the samples annually;

(c) Operation in such a manner as to endanger the public health or safety;

(d) Intentionally false statements made on the application forms or any document associated with certification;

(e) Fraudulence, deliberate falsification, or misrepresentation of federal and State laws when reporting test results;

(f) Conviction of any violation of the laws of Maryland related to water quality laboratories or public drinking water systems;

(g) Documentation of repeated episodes of unethical conduct of water quality laboratory operation;

(h) Failure to pay the prescribed fees associated with certification or renewal of certification;

(i) Fraudulent or deceptive use of a certification;

(j) Fraudulently or deceptively obtaining or attempting to obtain a certification;

(k) Submittal of another water quality laboratory's results for proficiency tests; or

(l) Failure to implement corrective actions to an on-site evaluation.

(2) Procedure for Revocation.

(a) The Certification Authority shall notify the laboratory, by certified mail, of the intent to revoke certification. The notification shall state the reasons that the laboratory's certification is being revoked and set forth corrective actions when applicable.

(b) The laboratory shall have 30 days from receipt of the notice of intent to revoke to submit documentation that shows the decision does not meet the criteria in this section. The documentation and a letter of explanation shall be sent by certified mail to the attention of the certification officer.

(c) If the laboratory has not responded within 30 days of the notification of the intent to revoke the certification, the Certification Authority may issue a notice of revocation. A copy of the Department's judicial review process shall be included with each notice of revocation.

(d) If the laboratory provides documentation and an explanation within the required time, the Certification Authority shall review the submission and determine whether to proceed with revocation.

(e) Within 30 days of receipt of the laboratory's submission, the Certification Authority shall notify the laboratory either that the documentation is satisfactory to address the reasons for revocation or that certification is revoked.

(f) If the Certification Authority determines after review of the laboratory's submission to revoke the certification, the revocation date may not be sooner than 30 days from the Certification Authority's notification to the laboratory. A copy of the Department's judicial review process shall be included with each notice of revocation.

(3) Upon revocation:

(a) A water quality laboratory shall return its certificate and parameter list; and

(b) A water quality laboratory may not analyze drinking water samples for compliance.

D. Request for Reinstatement of Certification.

(1) Revoked Certification. Through a written request, a laboratory may seek reinstatement of certification if a laboratory can demonstrate to the Certification Authority's satisfaction that the deficiencies which resulted in revocation have been corrected. The Certification Authority may require an on-site evaluation, successful analysis of unknown samples, or other measures before determining that a laboratory's certification should be reinstated.

(2) Expired Certification. If a water quality laboratory demonstrates that it meets all renewal requirements, the Department may reinstate the certification of the water quality laboratory.

.14 Expiration and Renewal of Certification.

A. Expiration Date.

(1) Certification expires on the date shown on the certificate and is renewable annually.

(2) The expiration date of a certificate may be amended upon the written request of a water quality laboratory and the approval of the Certification Authority.

B. Annual Certification. The Department shall notify a water quality laboratory not less than 120 days before the expiration date shown on the face of the existing certificate that the laboratory shall submit a renewal application and fees, as applicable.

C. A water quality laboratory shall submit an application and fees, as applicable, for renewal of its certification annually at least 90 days prior to the expiration date on the certificate.

D. A water quality laboratory that has an expired certification may not analyze drinking water compliance samples.

.15 Certification of Out-of-State Water Quality Laboratories.

A. An out-of-State water quality laboratory may be certified to perform drinking water analyses pursuant to Environment Article, Title 9, Subtitle 10, Annotated Code of Maryland, provided it is certified by the U.S. Environmental Protection Agency, TNI, or the state in which it is located, if certification criteria are at least as stringent as the requirements of this chapter. Proof of this certification shall be provided to the Department by the out-of-State water quality laboratory.

B. An out-of-State water quality laboratory shall submit acceptable proficiency test results for each certified parameter and method.

.16 Changes in Personnel, Analytical Procedures, or Location of Water Quality Laboratory.

A. A water quality laboratory shall report a change in ownership, water quality laboratory supervisor, or analyst in writing to the Department within 30 days after its occurrence.

B. A water quality laboratory shall submit in writing to the Department any proposed changes in analytical procedures, instrumentation, or location of a certified water quality laboratory before the change is implemented.

C. The Department may perform an on-site evaluation within 30 days of notification by the laboratory that a change in location has occurred.

.17 Certification Refusal, Revoked Certification, and Provisional Certification.

A. A certification may be downgraded to provisional certification or revoked by the Department following an opportunity for a hearing before the Secretary or a designated hearing officer, pursuant to COMAR 26.01.02.

B. Written notification will be issued to the water quality laboratory or person, or persons, responsible for its operation, specifying one or more reasons for refusal, downgrade to a provisional certification, or revocation.

C. If certification is downgraded to provisional certification, full certification is withdrawn until the cause for noncompliance with this chapter has been removed or addressed.

D. A provisional certification status continuing for more than 90 days without correction may be followed by revocation.

E. After revocation of its certification, the water quality laboratory may be recertified upon presentation to the Department of reasonable evidence of capability to comply with this chapter.

.18 Penalty.

A person who violates any provision of Environment Article, Title 9, Subtitle 10, Annotated Code of Maryland, is guilty of a misdemeanor and on conviction is subject to a fine not exceeding \$1,000 or imprisonment not exceeding 1 year or both.

Administrative History

Effective date: November 21, 1983 (10:23 Md. R. 2063)

Chapter recodified from COMAR 10.10.04 to COMAR 26.08.05

Regulations .01—.16 repealed and new Regulations .01—.18 adopted effective July 21, 2014 (41:14 Md. R. 800)

Title 26 DEPARTMENT OF THE ENVIRONMENT

Subtitle 08 WATER POLLUTION

Chapter 06 Cleaning Agents

Authority: Environment Article, §§9-1501—9-1505, Annotated Code of Maryland

.01 Scope.

These regulations restrict phosphorous content in laundry and dishwashing cleaning agents.

.02 Definitions.

A. The following terms have the meanings indicated.

B. Terms Defined.

(1) "Cleaning agent" means a laundry detergent, dishwashing compound, household cleaner, metal cleaner, phosphate compound, or other substance that is used or intended to be used for cleaning purposes.

(2) "Department" means the Department of the Environment.

(3) "Dishwashing detergent" means a cleaning agent sold, used, or manufactured for the purpose of cleaning dishes, whether by hand or by household or commercial machine.

(4) "Laundry detergent" means a cleaning agent sold, used, or manufactured for the purpose of cleaning laundry, whether by hand or by household or commercial machine.

(5) "Person" includes the State, any county, municipal corporation, or other political subdivision of the State, or any of their units, or an individual receiver, trustee, guardian, executor, administrator, fiduciary, or representative of any kind, or any partnership, firm, association, public or private corporation, or any other entity.

(6) "State" means the State of Maryland.

.03 Phosphate Ban.

A. After December 1, 1985, a person may not use, sell, manufacture, or distribute for use or sale any cleaning agent that contains phosphorous, except as provided below:

(1) Products that may be used, sold, manufactured, or distributed for use or sale regardless of phosphorous content include:

(a) A detergent:

(i) Used in dairy, beverage, or food processing cleaning equipment,

(ii) Used in hospitals, veterinary hospitals, clinics, health care facilities, or in agricultural production,

(iii) Used by industry for metal cleaning or conditioning,

(iv) Manufactured, stored, or distributed for use or sale outside the State,

(v) Used in any laboratory, including a biological laboratory, research facility, chemical laboratory, and engineering laboratory,

(vi) Used in a commercial laundry that provides laundry services for a hospital, health care facility, or veterinary hospital, or

(vii) Used for surface cleaning, appliance cleaning, or specialty home cleaning, and not for dishwashing or laundry;

(b) A phosphoric acid product, including a sanitizer, brightener, acid cleaner, or metal conditioner;

(c) A substance the Department excludes from the phosphorous limitations of this section based on a finding that compliance with this section would:

(i) Create a significant hardship on the user, or

(ii) Be unreasonable because of the lack of an adequate substitute cleaning agent that could be substituted for the subject cleaning agent without significant cost or effect differences.

(2) Laundry Detergents. After December 1, 1985, a person may use, sell, manufacture, or distribute for use or sale a laundry detergent that contains 0.5 percent phosphorous or less that is incidental to manufacturing.

(3) Dishwashing Detergents. After December 1, 1985, a person may use, sell, manufacture, or distribute for use or sale a dishwashing detergent that contains 8.7 percent phosphorous or less by weight.

B. Products Used in Coin-Operated Laundries and Septic Tanks. The Department finds that no significant hardship exists for owners of coin-operated laundries and for owners of septic tanks, so products used by these two groups are specifically included in the phosphate ban.

C. Penalties.

(1) A person who uses a cleaning agent in violation of this chapter is guilty of a misdemeanor and on conviction is subject to a fine not exceeding \$100.

(2) A person who sells, distributes, or manufactures a cleaning agent in violation of this chapter is guilty of a misdemeanor and on conviction is subject to a fine not exceeding \$1,000.

(3) The Department may seize any cleaning agent held for sale or distribution in violation of this chapter. The seized cleaning agents are considered forfeited.

Administrative History

Effective date: July 13, 1986 (13:14 Md. R. 1633)

Recodified from COMAR 10.50.08 to COMAR 26.08.06

Title 26 DEPARTMENT OF THE ENVIRONMENT

Subtitle 08 WATER POLLUTION

Chapter 07 Underground Injection Control

**Authority: Environment Article, §§7-204(a), 7-208, 9-313(a), and 9-314(b)(3) et
seq., Annotated Code of Maryland**

.01 General.

A. Except as provided in Regulation .02, the Department of the Environment adopts by incorporation by reference, as its regulations, the federal regulations for Underground Injection Control contained in 40 CFR 144 (48 FR 14189—14203 (April 1, 1983)) and as amended in 64 FR 68546 (December 7, 1999), 124 (Subpart A) (48 FR 14264—14273 (April 1, 1983)), and 146 (July 1, 1982 Edition), as amended in 48 FR 14293 and as amended in 64 FR 68546 (December 7, 1999.).

B. For any underground injection subject to this subtitle, a person may not cause, maintain, or allow any underground injection except as provided in this subtitle. A person may not construct a Class I—Class IV underground injection well subject to this subtitle until a permit has been issued under this subtitle.

C. The terms "Director" and "State Director", defined in 40 CFR 144.3 and 146.3 mean the Secretary of the Environment or the Secretary of the Environment's designee.

.02 Exceptions.

40 CFR 144.4 (Considerations Under Federal Law) is inapplicable to Underground Injection Control Permits issued by the Department of the Environment and, therefore, is not adopted by incorporation by reference.

.03 Enforcement.

A. A person who violates the requirements of this chapter is subject to administrative and judicial enforcement and penalties, as provided in Environment Article, §§9-334 et seq., Annotated Code of Maryland.

B. The procedures for an adjudicatory hearing under this chapter are those in COMAR 26.01.02.

.04 Prohibitions.

As provided in COMAR 26.13.05.19, the underground injection of hazardous waste is prohibited in Maryland.

Administrative History

Effective date: December 19, 1983 (10:25 Md. R. 2269)

Recodified from COMAR 10.50.04 to COMAR 26.08.07

Regulation .01 amended effective September 3, 2001 (28:17 Md. R. 1559)

Regulation .02 amended effective September 3, 2001 (28:17 Md. R. 1559)

Regulation .03 amended effective September 3, 2001 (28:17 Md. R. 1559)

Regulation .04 adopted effective September 3, 2001 (28:17 Md. R. 1559)

Title 26 DEPARTMENT OF THE ENVIRONMENT

Subtitle 08 WATER POLLUTION

Chapter 08 Pretreatment Requirements to Control Industrial Users of Publicly Owned Treatment Works

**Authority: Environment Article, §§9-313, 9-314, 9-315, 9-319, 9-320, 9-325, 9-327,
and 9-328, Annotated Code of Maryland**

.01 Purpose.

The Department shall operate the State Pretreatment Program to:

- A. Meet national pretreatment requirements; and
- B. Eliminate contributions of pollutants discharged from industrial users into publicly owned treatment works (POTWs) which cause interference with or pass through the POTW, or contaminate the sludge.

.02 General Requirements.

A. POTWs meeting the conditions in Regulation .05 of this chapter shall develop and implement a pretreatment program in accordance with pretreatment requirements.

B. New and existing industrial users which directly or indirectly discharge industrial waste into POTWs shall be regulated by the State and by persons owning POTWs under authority delegated to them by the State.

C. A person may not:

(1) Introduce industrial wastes into a POTW except in compliance with pretreatment requirements; or

(2) Prevent or interfere with the inspection and sampling of industrial users subject to pretreatment requirements.

.03 State Pretreatment Program.

A. A person owning a POTW or combination of POTWs shall implement POTW pretreatment programs in accordance with the pretreatment regulations in this section if:

- (1) The total design flow exceeds 5 million gallons per day; and
- (2) Industrial users discharge wastes which pass through, or cause interference, or are otherwise subject to national pretreatment standards.

B. POTW owners may be required to develop and implement pretreatment programs if:

- (1) The nature or volume of waste from an industrial user causes interference or pass through; or
- (2) An industrial user subject to national pretreatment standards discharges into the POTW.

C. Persons owning POTWs for which pretreatment programs are required shall, upon request, submit to the Department information in accordance with national pretreatment requirements to document that:

- (1) Industrial users discharging to the POTW are adequately identified and characterized;
- (2) Adequate legal authority exists to require industrial users to meet pretreatment requirements;
- (3) Adequate technical ability exists or will exist to meet the requirements of this section;
- (4) Adequate inspection and monitoring capability exists or will exist to ensure compliance with pretreatment requirements;
- (5) Administrative procedures necessary to implement a pretreatment program have been developed; and
- (6) Adequate resources exist or will be committed (funds, equipment, and personnel) to implement a continuing pretreatment program.

D. The Department shall review POTW pretreatment program submittals to determine compliance with the requirements of this section and national pretreatment requirements.

E. The Department shall conform with national pretreatment requirements and the applicable provisions of the Administrative Procedure Act, State Government Article, Title 10, Annotated Code of Maryland, concerning public notice, opportunity for public hearing, and public appeal of final determination.

F. If the Department determines that the POTW's pretreatment program does not meet the requirements of this section and national pretreatment requirements, the Department may order the owners to take any action necessary to ensure compliance.

G. Existing State discharge permits may be reissued for those POTWs required to implement a pretreatment program.

H. The Department may impose as a condition in a discharge permit:

- (1) The implementation of an approved and delegated pretreatment program; and
- (2) The submission of data necessary to ensure compliance with pretreatment requirements.

I. The Department shall administer federal and State pretreatment requirements through delegation agreements with the person owning a POTW. The delegation agreement shall set out:

- (1) Specific pretreatment authority delegated including enforcement authority in Environment Article, §§9-333, 9-334, 9-339, 9-342, and 9-343, Annotated Code of Maryland;
- (2) The pretreatment responsibilities of the person owning the POTW;
- (3) The requirement to collect data and reports, (baseline monitoring reports and self-monitoring report) in accordance with pretreatment requirements;
- (4) The requirement to develop and enforce compliance schedules for industrial users in accordance with pretreatment requirements;
- (5) The requirement to submit information to the Department; and
- (6) The requirement to implement the approved local program to meet pretreatment requirements.

J. A person owning a POTW shall retain all records or information required by the delegation agreement and national pretreatment requirements for a period of not less than 3 years. This period shall be extended during the course of unresolved litigation.

K. The Department shall review reports, inspect and monitor POTWs and industrial users to verify compliance with pretreatment requirements.

L. Notwithstanding the existence of any delegation agreement, to ensure compliance with the pretreatment requirements, the Department may take any of the following actions against a POTW or an industrial user:

- (1) Issue a complaint and order which may include a limitation in flows to the POTW or the imposition of sewer moratoria in accordance with Environment Article, §§9-512 and 9-335, Annotated Code of Maryland;
- (2) Seek injunctive relief in accordance with Environment Article, §9-339, Annotated Code of Maryland;
- (3) Seek civil penalties in accordance with Environment Article, §9-342, Annotated Code of Maryland;
- (4) Seek criminal penalties in accordance with Environment Article, §9-343, Annotated Code of Maryland;
- (5) Impose and enforce pretreatment requirements on industrial users and exercise any other authority delegated to it by law; and
- (6) Order an industrial user to submit any reports imposed by national pretreatment requirements including signatory requirements directly to the Department.

M. The Department, its authorized representatives, and delegated POTWs shall have the right to enter any buildings, structures, or premises of an industrial user that is or may be subject to pretreatment requirements for the purpose of:

- (1) Inspecting and copying required records;
- (2) Inspecting and monitoring methods and equipment;
- (3) Sampling discharges into POTWs; and

(4) Determining compliance with pretreatment requirements.

N. The Department may require or order modifications to any POTW pretreatment program if the Department determines that the pretreatment program is inadequate to prevent interference or pass through.

O. The Department shall review and may approve requests made by any person owning a POTW for modifications to approved pretreatment programs. The Department shall approve the request if the Department determines that the modification meets pretreatment requirements.

P. The Department shall review, in accordance with national pretreatment requirements, requests for industrial category determinations, submitted by a person owning a POTW or an industrial user. When a determination has been made, the decision and a written explanation will be forwarded to EPA for final action.

Q. The owner of a POTW receiving wastes from an industrial user to which a national pretreatment standard applies may request the Department's approval to revise the discharge limit for a specific pollutant covered in the national pretreatment standard applicable to the user. Revisions may be approved if the POTW owner demonstrates compliance with national pretreatment requirements regulating granting of removal credits.

R. If upon review of the request the Department determines that the POTW owner's application to revise a discharge limit can be approved, the Department shall, in accordance with national pretreatment requirements and the Maryland Administrative Procedure Act, issue public notice of the POTW owner's request and provide for public hearing, notice and appeal of final determination.

.04 Variance to State Pretreatment Program.

A. A person believing that factors relating to an industrial user are fundamentally different from the factors considered during development of a national pretreatment standard applicable to the user, and that the existence of those factors justifies a different discharge limit from that specified in the applicable national pretreatment standard, may request a fundamentally different factor variance.

B. A person seeking a variance shall submit to the Department an application which contains the information required for request of variances in the national pretreatment requirements.

C. The Department shall review requests for fundamentally different factors in accordance with procedures established by the national pretreatment requirements and forward the application with its comments to EPA.

.05 Pretreatment Reporting Requirements for a Person Owning a POTW.

A. A person who owns a POTW and has reason to believe that an industrial user has caused interference, pass through, or a permit violation in the POTW shall:

- (1) Within 24 hours report the event to the Department; and
- (2) Within 14 days submit to the Department a written summary of the occurrence and any enforcement or corrective actions taken to prevent or minimize recurrence.

B. A person owning a POTW with an approved pretreatment program shall collect and submit data summaries and other reports to the Department, in accordance with and on a frequency specified by the delegation agreement. The signatures on the reports shall conform with national pretreatment requirements. The reports shall include:

(1) POTW Sampling Report. A summary of self-monitoring conducted by the POTW owner to determine compliance with pretreatment requirements.

(2) Industrial User Sampling Report. A summary of the results of self-monitoring reports filed by industrial users with the participating POTW which includes violations of discharge authorizations.

(3) POTW Inspection Report. A summary of inspections made of industrial users by the POTW staff which shows the number of inspections, type of inspection, results of inspection, and any enforcement actions taken.

(4) POTW Monitoring Report. A summary of the analytical results of industrial waste samples taken by the POTW staff.

(5) POTW Enforcement and Compliance Report. A report indicating the adherence to any applicable schedule for compliance imposed upon an industrial user to comply with pretreatment requirements.

C. A person owning a POTW shall submit annual revisions of their list of industrial users to the Department.

Administrative History

Effective date:

COMAR 10.50.01.08J-1 recodified to COMAR 26.08.08.01—.04

Regulations .01—.04 adopted effective August 26, 1985 (12:17 Md. R. 1706)

Chapter revised effective June 27, 1988 (15:13 Md. R. 1556)

Regulation .02A amended effective April 16, 1990 (17:7 Md. R. 854)

Title 26 DEPARTMENT OF THE ENVIRONMENT

Subtitle 08 WATER POLLUTION

Chapter 09 Public Bathing Beaches

**Authority: Environment Article, §§9-252, 9-313—9-315, and 9-319, Annotated
Code of Maryland**

.01 Definitions.

A. In this chapter, the following terms have the meanings indicated.

B. Terms Defined.

(1) "Approving authority" means the Secretary of the Department of the Environment or the Secretary's designee.

(2) "Beach Action Value" (BAV) means the value the approving authority uses to issue beach notifications and is defined as follows:

(a) BAV is 235 colony forming units (cfu) using E. coli indicator at freshwater beaches.

(b) BAV is 104 cfu using Enterococci indicator at marine beaches.

(3) Beaches.

(a) "Beaches" means natural waters, including points of access, used by the public for swimming, bathing, surfing, or other similar water contact activities.

(b) Beaches are places where people engage in or are likely to engage in activities that could result in immersion in or ingestion of the water.

(c) Beaches are designated as such from Memorial Day through Labor Day.

(4) "Owner or operator" means an individual, receiver, trustee, guardian, personal representative, fiduciary, or representative of any kind and any partnership, firm, association, corporation, governmental body, or other entity receiving a permit for a beach.

(5) Permitted Beach.

(a) "Permitted beach" means a beach which the owner or operator holds open to the public for bathing, swimming, or other water recreation and which abuts a pond, lake, quarry, stream, bay, or other water body.

(b) "Permitted beaches" includes the buildings and appurtenances, if any, used in connection with it.

(6) "Sampling event" means samples taken at a beach or permitted beach to characterize bacterial concentrations with the number and placement of sampling stations sufficient to characterize conditions in the full extent of the bathing area.

(7) "Sanitary survey" means a comprehensive survey conducted by the approving authority of the topographic drainage area surrounding the beach or permitted beach to determine possible sources of pollution or any discharge which may adversely affect the quality of water in the swimming area.

.02 Approval of Plans and Application for Permitted Beaches.

A. An owner or operator shall submit an application for a permit to operate a permitted beach to the approving authority for approval 30 days before the planned opening of the permitted beach.

B. Plans.

(1) Plans shall be drawn to scale.

(2) The application shall include the following plans, except as provided in §C, of this regulation:

(a) A diagram of the beach area including all buildings;

(b) Plans for the bathhouses;

(c) Plans of the water supply and sewage system;

(d) Location of trash and waste containers;

(e) Plans of any food facility; and

(f) Plans of marina facilities, if any.

C. When a permitted beach has had no change in the facilities which would require a change in the previously approved, existing plans for the permitted beach, the approving authority, upon the request of the applicant, may approve the existing plans.

.03 Annual Permit for Operation of Permitted Beaches.

A. An owner or operator may not operate or permit the use of a permitted beach without obtaining a written permit from the approving authority.

B. The beach shall be served by public sewerage or an approved sewage disposal system. An operating permit may not be issued until a sanitary survey conducted by the approving authority has demonstrated that the beach does not represent a public health risk.

C. A permittee shall comply with all:

(1) Terms and conditions of the permit;

(2) Applicable laws, regulations, and ordinances.

D. A permit is not valid for more than 1 year and expires not later than December 31st of the year of the issuance of the permit.

E. Operating permits shall be posted conspicuously at a beach.

F. A permit may be suspended or revoked for failure to comply with this regulation. A revoked permit shall be removed and a copy of the revocation notice shall be posted by the owner or operator of the beach.

.04 Drinking Water at Permitted Beaches.

An adequate supply of potable drinking water shall be available to bathers at each permitted beach.

.05 Sanitary Facilities at Permitted Beaches.

A. Toilet facilities shall be provided in accordance with applicable local plumbing codes.

B. The beach shall be served by public sewerage or an approved sewage disposal system. Sewage disposal systems shall comply with COMAR 26.04.02 and COMAR 26.04.03 and all applicable local ordinances.

C. Plans for a sewage disposal system to be constructed at any beach shall first be submitted to, and receive the written approval of, the approving authority.

D. The permittee shall provide adequate containers for the disposal of refuse, trash, and garbage.

.06 Sanitary Quality of Permitted Beaches.

A. A sanitary survey shall be performed by the approving authority before a beach is permitted to open.

B. The sanitary quality of a beach is acceptable for use when the sanitary survey discloses that there is no public health risk.

C. The sanitary survey shall evaluate potential sources of pollution which include, but are not limited to:

(1) Discharges from sewage treatment plants, sewage pumping stations, storm drain outfalls, and failing on-site sewage disposal systems;

(2) Natural storm water discharges;

(3) Industrial and commercial discharges;

(4) Agricultural runoff;

(5) Discharges at marinas; and

(6) Concentrated domestic or wild animal populations.

D. Two or more sampling events shall be performed and completed during the 30-day period before the opening of a beach for public use.

E. An operating permit may be issued if a sanitary survey reveals no dangerous sources of pollution and if the microbiological samples collected during the sanitary survey satisfy the Beach Action Value (BAV).

F. When results of the samples show an exceedance of the BAV, a permit may be issued only if it is further determined by the approving authority, after additional sampling and analysis, that the bathing water poses no significant health risk to the bathers.

G. The approving authority shall periodically sample the bathing waters under permit for microbiological quality. Sampling shall be consistent with Regulation .07 of this chapter. All permitted beaches are considered Tier I and shall be monitored at least weekly unless a justification for lower priority is provided by the approving authority. The approving authority may order restrictions, including suspension of the permit and closing of the bathing water to use, as necessary, when the results of the bacterial indicator density exceed the BAV. A permit may be reinstated when the bacterial indicator densities return to acceptable limits.

H. When an emergency health hazard is caused by any dangerous contaminant or condition, the approving authority or the Department may immediately order summarily the suspension of the operating permit and promptly shall provide the permittee written notice of the suspension, the finding and the reasons that support the finding, and an opportunity to be heard.

.07 Tiered Monitoring — Applicable Memorial Day Through Labor Day.

A. Prioritization for Monitoring. The approving authority shall maintain a list of all beaches. The monitoring priority for each area shall be based on frequency and nature of use, proximity of pollution sources, and effects of storm events on the waters. The approving authority shall identify each beach as Tier 1 (High Priority), Tier 2 (Medium Priority), or Tier 3 (Low Priority) and provide appropriate public notification.

B. Bacteriological Monitoring.

(1) The approving authority shall perform a sanitary survey before a beach may open. In addition, one or more sampling events shall be performed and completed during the 30-day period before the opening of a beach for public use.

(2) Sampling Frequency.

(a) Tier 1 — Frequently used beaches or beaches where risk may potentially be elevated by known pollution sources or impacts from rainfall shall be monitored weekly.

(b) Tier 2 — Less frequently used beaches or beaches where potential pollution impacts are minimal shall be monitored biweekly.

(c) Tier 3 — All other beaches shall be monitored monthly.

(3) Evaluation of water quality using Beach Action Values (BAV).

(a) Sampling events shall consist of at least three indicator bacteria samples per sampling event.

(b) In addition to the application of the BAV, the approving authority may consider other factors, including the results of sanitary surveys, prior rainfall, and other environmental conditions in making public health decisions.

.08 Public Notification.

A. When results of the samples show an indicator organism density that exceeds the Beach Action Value, the Approving Authority shall issue a public notification unless there is reason to doubt the accuracy or certainty of the first sample. The approving authority shall then promptly resample and, if standards are being exceeded, prompt public notification of the advisory or closure if required. If a known pollution source exists, such as combined sewer overflow, failing sewer infrastructure, wastewater treatment discharge, or other source, the approving authority shall close the beach and provide prompt public notification of the closing.

B. The beach may be opened or the advisory lifted only after subsequent bacteriological sampling results in indicator densities that satisfy the Beach Action Value.

C. When an emergency health hazard is caused by any dangerous contaminant or condition, the Approving Authority or the Department may immediately order the beach closed and summarily suspend the operating permit (for permitted beaches) and shall promptly provide the permittee written notice of the suspension, the finding and the reasons that support the finding, and an opportunity to be heard. Public notification procedures shall be implemented.

.09 Appeal.

An owner or operator aggrieved by the decision of the Department shall have notice and an opportunity for a hearing in accordance with the provisions of the Administrative Procedure Act and other applicable statutes and regulations. Requests for hearings shall be filed with the Department, Water Management Administration, within 10 days after notification by the Department or the Approving Authority of the opportunity for a hearing.

Administrative History

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Regulation .06E, F, G amended effective April 10, 2018 (45:7 Md. R. 347)

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Title 26 DEPARTMENT OF THE ENVIRONMENT

Subtitle 08 WATER POLLUTION

Chapter 10 Overflows or Bypasses

Authority: Environment Article, §9-331.1, Annotated Code of Maryland

.01 Definition.

A. In this chapter, the following term has the meaning indicated.

B. Overflow.

(1) "Overflow" means any loss of wastewater or discharge from a sanitary sewer system, combined sewer system, or wastewater treatment plant bypass which results in the direct or potential discharge of raw, partially treated or diluted sewage into waters of the State as defined in Environment Article, §9-101(l), Annotated Code of Maryland.

(2) "Overflow" includes, but is not limited to, any overflow or discharge of raw or diluted sewage onto the surface of the ground, into waterways, storm drains, ditches or other manmade or natural drainage conveyances to surface or ground waters.

(3) "Overflow" does not include:

(a) An overflow or discharge of 50 gallons or less to the ground that are cleaned up within 1 hour of its occurrence; and

(b) An overflow or discharge to impervious surfaces that are effectively contained and cleaned up so that there is no direct or potential pollution of waters of the State as a result of the overflow or discharge.

.02 Overflows Prohibited.

A. Overflows are prohibited except as allowed under the terms of a discharge permit issued by the Department.

B. The existence of a discharge permit for a sanitary sewer system or combined sewer system that does not specifically reference the requirements of this chapter does not exclude the owner, operator, or permittee from the requirements of this chapter.

.03 Reports — Generally.

A. The owner or operator, or both, of any sanitary sewer system, combined sewer system, or wastewater treatment plant shall report to the Department and local health department any overflow that results in the direct or potential discharge of raw, partially treated, or diluted sewage into waters of the State.

B. The owner of a separate sanitary sewer system, pumping station, or grease trap that is connected to a public sewer system is responsible for providing reports required by this chapter.

C. Reports required by this chapter shall be made by telephone as soon as practicable to the telephone number or numbers designated by the Department, but not later than 24 hours after the time that the owner or operator becomes aware of the event.

.04 Telephone Reports.

Telephone reports shall include:

- A. The location of the overflow, including latitude and longitude if reasonably available, Maryland Grid Coordinates or nearest street and intersection, city or town, and county;
- B. The name of the owner and operator of the sanitary sewer system or treatment plant;
- C. The name of the receiving water, if applicable, and if known, whether the receiving water is designated as shellfish waters or for a public drinking water supply;
- D. The volume discharged based on actual measurement or as an estimate using best professional judgment;
- E. A description of the combined sewer system, separate sanitary sewer system or treatment plant component from which the overflow was released, such as manhole, crack in pipe, pumping station wet well or constructed overflow pipe;
- F. Whether the overflow is from a combined sewer system, a separate sanitary sewer system, or a treatment plant bypass;
- G. A detailed description of visual observations and preliminary assessment of the overflow's actual or potential impact upon waters of the State;
- H. The cause or suspected cause of the overflow;
- I. The date and time when the overflow began and stopped or, if not stopped, the date and time the overflow is expected to be stopped;
- J. The steps taken or planned to reduce, eliminate, and prevent recurrence of the overflow and a time schedule for completion of the steps;
- K. Measures taken or planned to mitigate the adverse impact of the overflow and a time schedule for implementation of the measures; and
- L. Whether the public has been notified, who performed the notification, the media used, and the content of the message.

.05 Written Reports.

A. Within 5 calendar days after the telephone notification of the event, the owner or operator shall provide the Department and local health department with a written report that includes, at a minimum, the information in Regulation .04 of this chapter unless the Department waives the requirement for submission of a written report due to the small volume of the overflow. The written report shall be directed to the mailing address specified by the Department.

B. The owner or operator of the sanitary sewer system, combined sewer system, or wastewater treatment plant or a duly authorized representative shall sign any written report. A person is a duly authorized representative only if the owner or operator has signed and submitted a written authorization to the Department specifying that the person or the person holding a specified position is authorized to sign sewage overflow reports. The written authorization shall be directed to the mailing address specified by the Department.

.06 Records, Disclosure.

The owner or operator shall, for at least 5 years from the date of the overflow or backup:

A. Maintain copies of all overflow records and reports, including:

- (1) Any backups of sewage into houses or businesses;
- (2) Work orders associated with investigation of overflows;
- (3) A list and description of complaints from customers or others related to overflows; and
- (4) Documentation of performance and implementation measures to address overflows;

and

B. Make this information available to the Department for review upon request.

.07 Reports to the Public.

The owner or operator shall coordinate with the local health officer or environmental health director regarding the content of reports to the public about overflows in accordance with the procedures developed by the Department, in cooperation with the Maryland Department of Health, local health departments, and local environmental health directors.

.08 Public Notification.

A. Unless advised by the Maryland Department of Health, local health department, or environmental health director on a case by case basis that public notification is not necessary, the owner or operator shall notify the public as soon as practicable, but not later than 24 hours after the time that the owner or operator becomes aware of the event, about:

(1) Any overflow that enters:

- (a) Shellfish harvesting waters;
- (b) Waters protected as drinking water sources;
- (c) Waters used as public bathing beaches where people may swim; or
- (d) Waters used for public recreation where people may boat, fish, or swim; and

(2) Any situation where the Maryland Department of Health, local health department, or environmental health director has reason to believe is a public health risk.

B. Public notification shall be made as soon as practicable, but not later than 24 hours after the time that the owner or operator becomes aware of the event and shall be made:

(1) By a public service announcement or paid advertising in a daily newspaper, radio station, or television station serving the immediate area where the overflow occurred and any other areas where the overflow is likely to have an adverse impact; and

(2) By posting affected areas, if the Maryland Department of Health, local health department, environmental health director, or a designee determines that:

(a) There is an immediate threat of human contact with contaminated water or ground where the overflow occurred;

(b) The size and flow rate of the water body into which the discharge entered are such that the discharge constitutes a significant portion of the flow;

(c) The potential for dilution and dispersal of the overflow into the receiving waters is minimal due to the season of the year, the period of time of the actual discharge, or the receiving water already being listed as impaired due to nonattainment of State bacteriological water quality standards; or

(d) The concentration of the effluent increases the risk to public health.

C. In addition to the public notification requirement based on the criteria in §B(1) of this regulation, if the overflow's total volume at the time of completed repair as measured or estimated using best professional judgment is 10,000 gallons or more, the owner or operator shall notify the public by:

(1) A public service announcement or paid advertising in a daily newspaper, radio station, or television station serving the immediate area where the overflow occurred and any other areas where the overflow is likely to have an adverse impact; and

(2) Posting affected areas, unless advised by the Maryland Department of Health, local health department, or environmental health director that public notification is not necessary.

D. The public advisory shall remain in effect until the Maryland Department of Health, local health department, environmental health director, or a designee determines that sampling data for the receiving water shows return to normal or prior background levels.

E. If the overflow's total volume at the time of completed repair as measured or estimated using best professional judgment is less than 10,000 gallons, and the Maryland Department of Health, local health department, environmental health director, or their designee determines that none of the factors listed in §B(1) and (2) of this regulation apply, the general public notification may be in the form of information provided in quarterly or annual reports, reports of incidents included with water bills, or information about incidents available on a website in conjunction with a written notification. The information shall:

(1) State that due to various causes, such as accidents and equipment failures, the specific sewer system experienced occasional sewage overflows;

(2) State the time period being reported;

(3) State the number of overflows that occurred;

(4) State the total number of gallons released;

(5) Advise the public in areas that are posted to avoid contact with the water or other water contact activities; and

(6) Advise that for larger overflows with potential environmental or human health impacts the public is notified through the media and, if appropriate, by posting signs.

F. Any public notification shall state:

(1) The approximate number of gallons of overflow;

(2) When the overflow occurred;

(3) Where the overflow occurred;

(4) The name of the receiving water;

(5) That swimming or other direct contact should be avoided in the receiving water from a specific point upstream to a specific point downstream until a specific date that is to be determined by the Maryland Department of Health, local health department, or environmental health director; and

(6) A telephone number for additional information.

.09 Personal Notification of Schools and Other Establishments.

If there are schools, day care centers, hospitals, or similar establishments or locations with potentially sensitive populations that may be subject to exposure in the immediate area of the overflow, the owner or operator of the system or plant or a representative shall personally notify each establishment of the overflow as soon as possible.

.10 Departmental Responsibilities and Authority.

A. The Maryland Department of Health, the local health officer, or the local environmental health director shall make all decisions and determinations as to public health issues resulting from an overflow.

B. The Maryland Department of Health, the local health officer, or the local environmental health director may require that reports to the public concerning an overflow include specific information regarding public health.

C. Signs posted following an overflow may be removed only as directed by the Maryland Department of Health, the local health department, or the local environmental health director.

.11 Owner or Operator Responsibilities.

A. The owner or operator shall make any local policies or procedures related to the requirements of this chapter available to the public upon request.

B. The owner or operator shall perform sampling of State surface waters that have received an overflow as directed and under the guidance of the Maryland Department of Health, the local health department, or the local environmental health director. The owner or operator shall have samples tested for fecal coliform, *Escherichia coli* (*E. coli*), Enterococci, or any other specific organism as directed by the Maryland Department of Health, the local health department, or the local environmental health director.

C. The owner or operator shall provide data collected after an overflow or bypass event and information about any permanent postings or health advisories to the Department within 14 days of the event. Reports of bacterial analysis shall include the dates the samples were taken, the latitude and longitude of the sampling location or Maryland Grid Coordinates if the latitude and longitude are not known, quantitative results, the name and address of the laboratory that performed the analysis, and any additional data that the Department may require. If a permanent posting or health advisory results from the monitoring, information shall be provided to the Department regarding the name and location of the receiving waters and the latitude and longitudes or Maryland Grid Coordinates of the upstream and downstream boundaries of the area to which the advisory applies, and a contact name.

Administrative History

Effective date: March 28, 2005 (32:6 Md. R. 636)

