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DEPARTMENT OF CONSUMER AND REGULATORY AFFAIRS

NOTICE OF FINAL RULEMAKING

The Director, Department of Consumer and Regulatory Affairs, pursuant to the authority set forth in section 5 of the Water Pollution Control Act of 1984, D.C. Law 5-188, effective March 16, 1985, D.C. Code section 6-924 (1988) and Mayor's Order 85-152, September 12, 1985, hereby gives notice of his adoption of the following rules as Chapter 11 of Title 21 DCMR, Water Quality Standards of the District of Columbia. Notice of the proposed rulemaking was published in the D.C. Register on August 25, 1989, at 34 DCR 6079. A comment was received from the U.S. Army Corps of Engineers, the drinking water treatment agency, that the Potomac River within the District was no longer a raw water source for public water supply and the rules were changed to drop that beneficial use class and the associated standards. Comments were received from the U.S. Environmental Protection Agency regarding compliance with the federal requirements for the standards and appropriate changes were made. These final rules will be effective upon publication of this notice in the D.C. Register.

WATER QUALITY STANDARDS
OF THE
DISTRICT OF COLUMBIA

1100 PURPOSE AND SCOPE

1100.1 These rules establish the revised Water Quality Standards for the surface and ground waters of the District of Columbia, herein referred to as waters of the District, under Section 5 of the D.C. Law 5-188, the "Water Pollution Control Act of 1984", which authorizes the revision of the classification of the beneficial uses of the waters and the criteria needed for the protection of the particular class of beneficial uses.

1101 DESIGNATION OF SURFACE WATERS

1101.1 Surface waters of the District which possess such characteristics as to be an outstanding District or national resource shall be maintained or restored to the highest quality achievable above the standards by designation as an antidegradation segment.

- 1101.2 New point source discharges of wastewater, treated or otherwise, shall be prohibited in antidegradation segments after the effective date of designation.
- 1101.3 Increases in loadings or new pollutants from existing point source discharges shall be prohibited in antidegradation segments.
- 1101.4 Non-point source discharges, storm water discharges and combined sewer overflows to antidegradation segments shall be controlled to the extent feasible through implementation of best management practices and regulatory programs.
- 1101.5 Construction projects such as roads, bridges and bank stabilization in the waters of a designated segment which may lead to pollution shall be considered on a case by case basis to insure that there are no long term adverse water quality effects and no impairment of the designated beneficial uses of the segment.
- 1101.6 Short term water quality effects on antidegradation segments from construction projects shall be subject to intergovernmental coordination and public participation requirements.
- 1101.7 The following waters of the District are designated as antidegradation segments:
- (a) Rock Creek and tributaries; and
 - (b) Battery Kemble Creek and tributaries.
- 1101.8 Surface waters of the District which are usually of sufficient quality to meet or exceed the water quality standards of the beneficial uses assigned to them in the Maintenance category of subsection 1103.1 shall be maintained at or above the quality necessary to support the uses actually attained on or after November 28, 1975.
- 1101.9 Surface waters of the District which are not of such quality as to meet or exceed the water quality standards of the beneficial uses assigned to them in the Restoration category of subsection 1103.1 shall be restored to such a quality as to be able to support and sustain those future uses. Any permits issued pursuant to Section 7 of D.C. Law 5-188 shall be based upon consideration of those future uses.

1102 BENEFICIAL USE CLASSES FOR SURFACE WATERS

1102.1 The surface waters of the District shall be grouped into classes so as to protect the waters from pollution for the beneficial uses designated within each class as set forth in this section.

1102.2 The following classes of surface waters shall be protected for the purposes indicated below:

- (a) Class A waters shall be protected for primary contact recreation;
- (b) Class B waters shall be protected for secondary contact recreation and aesthetic enjoyment;
- (c) Class C waters shall be protected for use as habitat by aquatic life, waterfowl, shore birds and water oriented wildlife;
- (d) Class D water shall be protected for use as a raw water source for industrial water supply; and
- (e) Class E waters shall be protected for navigational use.

1103 SURFACE WATER CLASSIFICATION

1103.1 The surface waters of the District shall be classified according to beneficial uses as follows:

Waters of the District	USE CLASSES	
	Maintenance (Present)	Restoration (Future)
Potomac River and tributaries (except as listed below) from Montgomery County line to Key Bridge	B, C, D, E	A, B, C, D, E
Battery Kemble Creek	B, C	A, B, C
C & O Canal	B, C	A, B, C
Potomac River and tributaries (except as listed below) from Key Bridge to Hains Point	B, C, D, E	A, B, C, D, E
Rock Creek and tributaries	B, C	A, B, C
Tidal Basin	B, C, D	A, B, C, D
Potomac River and tributaries (except as listed below) from Hains Point to Prince George's County line	B, C, D, E	A, B, C, D, E
Washington Ship Channel	B, C, E	A, B, C, E
Oxon Run	B, C	A, B, C
Anacostia River and tributaries (except as listed below)	B, C, D, E	A, B, C, D, E
Hickey Run	B, C	B, C
Watts Branch	B, C	B, C

1104 STANDARDS

1104.1 The surface waters of the District shall be free from substances attributable to point or non-point sources discharged in concentrations that do the following:

- (a) Settle to form objectionable deposits;
- (b) Float as debris, scum, oil or other matter to form nuisances;

- (c) Produce objectionable odor, color, taste or turbidity;
- (d) Injure, are toxic to or produce adverse physiological or behavioral responses in humans, plants or animals; or
- (e) Produce undesirable aquatic life or result in the dominance of nuisance species.

1104.2 Numerical standards for the protection of the quality of surface water to sustain the beneficial use classes consist of specific criteria. The numerical standards that apply to the use classes which can be protected by the assignment of specific water quality criteria are given in subsection 1104.7. For those waters of the District with multiple designated beneficial uses, the most stringent standards or criteria shall govern.

1104.3 Class A waters shall be free of discharges of untreated sewage; unmarked, submerged or partially submerged, man-made structures, and litter which constitute a hazard to the health of the users.

1104.4 Class E waters shall be free of unmarked submerged or partially submerged man-made objects which pose a hazard to users of these waters.

1104.5 The numerical standards necessary to sustain the use classes shall be as follows:

Constituent	Criteria for Classes			
	A	B	C	D
Bacteriological (No./100 ml)				
Fecal Coliform (Maximum 30 day geometric mean for 5 samples)	200	1,000		1,000
Physical				
Dissolved oxygen (mg/l)				
Minimum daily average (3 samples per 24 hours once per 8 hour)				5.0
Instantaneous minimum				
March through June				5.0
July through February				4.0
Temperature (°C)				
Maximum				32.2
Maximum change above ambient				2.8
pH				
Greater than	6.0	6.0	6.0	6.0
and less than	8.5	8.5	8.5	8.5
Turbidity increase above ambient (NTU)	20	20	20	
Total dissolved gases (maximum % saturation)				110
Hydrogen sulfide (maximum (ug/l))				2.0
Oil & grease (mg/l)				10.0

Constituent**Criteria for Class C**

Trace Metals & Inorganics (Maximum mg/l)

Aluminum, dissolved	0.087
Antimony	1.0
Arsenic, total recoverable	0.09
Beryllium	0.005
Cadmium, total recoverable	(I)
Chlorine, total residual	0.01
Chromium, hexavalent	0.01
Chromium, trivalent	0.2
Copper, total recoverable	(II)
Cyanide free	0.003
Iron, total	1.0
Lead, total recoverable	(III)
Mercury, total recoverable	0.000012
Nickel	(IV)
NH ₃ , un-ionized (as N)	0.02
Selenium, total recoverable	0.04
Silver, total recoverable	(V)
Thallium	0.04
Zinc, total recoverable	(VI)

Organics (Maximum-ug/l)

Acenaphthene	50.0
Acrolein	10.0
Acrylonitrile	700.0
Aldrin	0.4
Alachlor	500.0
Atrazine	170.0
Benzene	500.0
Benzidine	250.0
Carbon tetrachloride	1,000.0
Chlordane	0.0043
Chlorinated benzenes (except di)	25.0
Chlorinated ethanes	50.0
Chlorinated naphthalene	200.0
Chlorinated phenols (except penta)	3.0
Chloroalkyl ethers	1,000.0
Chloroform	1,000.0
DDT & isomers	0.001
Dichlorobenzenes	200.0
Dichlorobenzidine	10.0
Dichloroethylenes"	1,000.0
Dieldrin	0.0019
Dinitrotoluene	33.0
Diphenylhydrazine	30.0
Endosulfan	0.01

Constituent	Criteria for Classes
	C
Organics cont.	
Endrin	0.0023
Ethylbenzene	40.0
Flouranthene	400.0
Haloethers	40.0
Halomethanes	1,000.0
Heptachlor	0.0038
Hexachlorobutadiene	10.0
Hexachlorocyclohexane (Lindane)	0.08
Hexachlorocyclopentadiene	0.5
Isophorone	1,000.0
Naphthalene	600.0
Nitrobenzene	1,000.0
Nitrophenols	20.0
Nitrosamines	600.0
Pentachlorophenol	3.0
Phenol	0.1
Phthalate esters	100.0
Polychlorinated biphenyls	0.01
Polynuclear aromatic hydrocarbons	100.0
Propachlor	8.0
Tetrachloroethylene	800.0
Toluene	600.0
Toxaphene	0.01
Tributyltin	0.026
Trichloroethylene	1,000.0
2-chlorophenol	100.0
2,4-dichlorophenol	200.0
2,4-dichloroethylene	200.0
2,4-dimethylphenol	200.0
Dichloropropane	1,000.0
Dichloropropene	200.0
Others	(VII)

(I) The numerical standard in ug/l shall be given by:

$$e^{(0.7852[\ln(\text{hardness})]-3.490)}$$

(II) The numerical standard in ug/l shall be given by:

$$e^{(0.8545[\ln(\text{hardness})]-1.465)}$$

(III) The numerical standard in ug/l shall be given by:

$$e^{(1.2730[\ln(\text{hardness})]-4.705)}$$

(IV) The numerical standard in ug/l shall be given by:

$$e^{(0.76[\ln(\text{hardness})]+1.06)}$$

(V) The numerical standard in ug/l shall be given by:

$$e^{(1.72[\ln(\text{hardness})]-6.52)}$$

(VI) The numerical standard in ug/l shall be given by:

$$e^{(0.8473[\ln(\text{hardness})]+0.7614)}$$

Hardness in each case shall be measured as mg/l of CaCO₃.

(VII) A guideline value for Class C waters shall be ten percent of the 96 hour LC50 for affected biota for short term exposure of less than forty-eight (48) hours.

For exposures equal to or longer than forty-eight (48) hours, the criteria shall be one toxic unit as determined by the applicable method in the Environmental Protection Agency publications Technical Support Document for Water Quality-Based Toxics Control (EPA/440/44-85032) and Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (EPA/600/4-89/001).

1105 APPLICABILITY

1105.1 The discharge of pollutants in quantities that prevent the attainment of the surface water quality standards shall be allowed temporarily only if the discharger can demonstrate at least once every three (3) years through a public hearing process that one (1) of the following conditions hold:

(a) Irretrievable and irreversible conditions exist which prevent the attainment of the standards; or

(b) The application of technology sufficient to attain the standards is more stringent than that required by sections 301 and 306 of the federal Clean Water Act and would result in substantial and widespread adverse economic and social impacts.

1105.2 The numerical standards shall not apply at flows less than the average seven (7) day low flow which has a probability of occurrence of once in ten (10) years.

1105.3 The numerical standards for fecal coliform, dissolved oxygen, turbidity and un-ionized ammonia shall not apply for a period of twenty-four (24) hours following high flow conditions.

1105.4 High flow for the Potomac River is defined as a two

hundred percent (200%) increase in flow during a twenty-four (24) hour period.

- 1105.5 High flow for the Anacostia River is defined as rainfall with an intensity greater than two-tenths of an inch (0.2") per hour for a period of one (1) hour in the portion of the District of Columbia contributory to the Anacostia River or a three hundred percent (300%) increase in flow during a twenty-four (24) hour period.
- 1105.6 High flow for Rock Creek and tributaries is defined as rainfall with an intensity greater than two-tenths of an inch (0.2") per hour for a period of one (1) hour in the portion of the District of Columbia contributory to Rock Creek or a three hundred percent (300%) increase in flow during a twenty-four (24) hour period.
- 1105.7 High flow for other tributaries to the Potomac and Anacostia Rivers is defined as a flow increase of five hundred percent (500%) during a twenty-four (24) hour period.
- 1105.8 The numerical standards shall not apply to intermittent streams. Dischargers to intermittent streams shall provide to the Department for approval information demonstrating that the discharge will not impair the designated beneficial uses of the stream segment nor downstream segments.
- 1105.9 Mixing zones shall be established for point source discharges of pollutants which immediately threaten the present nearby aquatic community or present or future water uses of the stream segment or downstream segments.
- (a) Permissible size of the zone shall be dependent on an acceptable amount of impact and the size of the receiving water body;
 - (b) Mixing zones shall be free from discharged substances that will settle to form objectionable deposits; float to form unsightly masses; or produce objectionable color, odor or turbidity;
 - (c) Mixing zones shall protect aquatic life in shallow areas which serve as nursery areas;
 - (d) A mixing zone, or two (2) or more mixing zones, shall not form a barrier to migratory aquatic life;
 - (e) As a guideline, the quality for life within a mixing zone shall be such that the acute toxicity for biota significant to the area's

aquatic life community is not exceeded;

- (f) The positioning of mixing zones shall be done in a manner that provides the greatest protection to aquatic life and for the various uses of the water; and
- (g) Within the estuary, the maximal dimension of the mixing area shall not exceed ten percent (10%) of the numerical value of the cross-sectional area of the waterway and shall not occupy more than one third (1/3) of the width of the waterway.

1106 GROUND WATER

1106.1 The following sections describe classes of ground waters within the District, establish criteria to protect the designated uses, establish the concepts of Enforcement Standards and Early Warning Values, and provide ground water monitoring requirements.

1106.2 Ground water in the District is not currently being used as a potable water source; however, where attainable, it shall be protected for beneficial uses, including surface water recharge, drinking water in other jurisdictions, and potential future use as a drinking water source in the District. Groundwaters shall be protected from pollution because the lack of such protection might result in:

- (a) Large future cleanup costs of contaminated groundwater;
- (b) Contaminated groundwater becoming a potential health hazard to the public;
- (c) Contaminated ground water mixing with and contaminating adjacent surface waters; or
- (d) Contaminated ground water mixing with and contaminating the ground waters of adjacent jurisdictions.

1107 APPLICABILITY OF GROUND WATER STANDARDS

1107.1 The ground water standards and ground water classifications shall apply to all ground waters of the District.

1107.2 When point source ground water pollution occurs, the numerical criteria and enforcement standards of Section 1111 shall be applied.

1108 BENEFICIAL USE CLASSES FOR GROUND WATER

1108.1 The following ground waters shall be classified as Class G1 if they are of drinking water quality:

- (a) Ground waters that are highly vulnerable to contamination;
- (b) Ground waters in recharge areas for the drinking water aquifers of adjacent jurisdictions;
- (c) Ground waters that are hydrologically connected to surface waters of the District including designated antidegradation segments of Subsection 1101.7; and
- (d) Ground waters that discharge to a sensitive ecological system that supports a unique habitat.

1108.2 The following ground waters shall be classified as Class G2:

- (a) Ground waters that are of drinking water quality but are not classified as G1;
- (b) Ground waters in recharge areas of drinking water aquifers of adjacent jurisdictions but are not of drinking water quality;
- (c) Ground waters that are hydrologically connected to surface waters of the District including designated antidegradation segments but are not of drinking water quality; and
- (d) Ground waters that are not of drinking water quality but can be made suitable for drinking water by conventional treatment processes.

1108.3 Class G3 ground waters shall be those that can neither be grouped under Class G1 nor under Class G2.

1108.4 In order to adequately maintain and preserve ground water quality within the District, where land use is affecting or has the potential to affect ground water quality, the Department shall identify areas that are highly vulnerable to ground water contamination due to hydrogeologic factors. Class G1, G2 or G3 ground water shall then be designated as ground water vulnerable to ground water contamination.

1109 SPECIFIC GROUND WATER CLASSES

(Reserved)

1110 GROUND WATER CLASSIFICATION

1110.1 All ground waters shall be classified as Class G1 until enough information that warrants a different classification is provided to or obtained by the Department and evaluated.

1111 GROUND WATER STANDARDS

1111.1 For the protection of the designated use of the ground water and the hydrologically connected water bodies, narrative and numerical criteria, enforcement standards and early warning values for each ground water class are hereby provided in order to establish upper contaminant levels that shall not be exceeded.

1111.2 The following narrative criteria shall apply to all ground waters of the District:

- (a) All ground waters shall at all places and at all times be free from pollution in the form of oil, carcinogens, toxicants, and other substances in concentrations which might present a health hazard and/or render the groundwater unusable.
- (b) All ground waters shall at all places and at all times be free from domestic, industrial, agricultural, and/or other man-induced non-thermal components of discharges in concentrations which, alone or in combination with other substances or components of discharges:
 - (1) Are harmful to plants, animals or other organisms;
 - (2) Are carcinogenic, mutagenic, teratogenic, or toxic in toxic amounts to human beings;
 - (3) Are acutely toxic to biological species of the aquatic community within surface waters affected by the ground water at the point of contact with surface waters;
 - (4) Pose a serious danger to the public health, safety or welfare;
 - (6) Create or constitute a nuisance; or
 - (7) Impair the reasonable and beneficial use of

adjacent waters within and outside the
District.

1111.3 Numerical criteria for Class G1 ground waters shall be
most restrictive and are as follows:

Constituent	Criterion	Early Warning Value
Trace Metals & Inorganics (maximum mg/L unless noted otherwise)		
Primary		
Arsenic	0.05	0.01**
Barium	1.0	0.2**
Cadmium	0.01	0.002**
Chromium, hexavalent	0.05	0.01**
Chromium, trivalent	0.05	0.01**
Cyanide, free	0.005	0.001**
Fluoride	2.0	0.4**
Lead	0.05	0.01**
Mercury	0.002	0.0004**
Nitrates	10.0	2.0**
Nitrite	1.0	0.5*
Selenium	0.01	0.002**
Silver	0.05	0.01**
Secondary		
Turbidity	5 NTU	NA
Chloride	250.0	125.0*
Copper	1.0	0.5
Iron	0.3	0.15*
Manganese	0.05	0.025*
Sulfate	250	125*
Total dissolved solids	500	250*
Zinc	5.0	2.5*
Organics (maximum ug/l)		
Benzene	5.0	+LOD
Carbon tetrachloride	5.0	+LOD
Dichlorobenzene (para)	75.0	+LOD
Dichloroethylenes	7.0	+LOD
Endrin	0.2	+LOD
Ethylbenzene	680	+LOD
Hexachlorocyclohexane (Lindane)	4.0	+LOD
Methoxychlor	100	+LOD
1,1,1-Trichloroethane	200	+LOD
1,2-Dichloroethane	5.0	+LOD
Tetrachloroethylene	5.0	+LOD
Toluene	100	+LOD
Total Trihalomethanes	100	+LOD
Toxaphene	5.0	+LOD
Trichloroethylene	5.0	+LOD
2,4-D	100	+LOD
2,4,5-TP Silvex	10.0	+LOD

Constituent	Criterion	Early Warning Value
Organics cont'd.		
Vinyl chloride	2.0	+LOD
Xylene	620	+LOD
Radionuclides (maximum activity, pCi/L)		
Combined Radium-226 & Radium-228	5	1.0 **
Gross alpha particle activity	15	3.0 **
Gross beta particle activity	50	10 **
Microbiological (maximum organisms/ml)		
Fecal Coliform	1	NA
Acidity (allowable range, standard units)		
pH	6.5 to 8.5	NA

** : Early Warning Value is 20% of criterion.

* : Early Warning Value is 50% of criterion.

+ : Early warning Value for synthetic chemicals that have no natural source is level of detection (LOD).

NA: Not Applicable.

1111.4 For the purposes of these regulations, the enforcement standard is the value assigned to any contaminant, which if exceeded, may result in the Department initiating enforcement action.

1111.5 Except as specified in subsection 1111.6, the enforcement standards shall be established based on the following:

- (a) For Class G1, where a criterion is established, the enforcement standard shall be the criterion if the criterion is not exceeded in the background water quality;
- (b) For Class G1, if a criterion is established and exceeded in the background water quality, the enforcement standard shall be the background concentration;
- (c) When a criterion is not established for a Class G1 ground water, the enforcement standard shall be based on the best available scientific knowledge including, but not limited to, the background water quality, the use of U.S. Environmental Protection Agency water quality criteria and

Health Advisories, other states water quality criteria, and risk assessment calculations. The value utilized will depend on technological and economic factors;

- (d) When a specific activity which does or may contaminate ground water is being regulated by the Department and a criterion is not established, the enforcement standard may be established through, but not limited to, a state waste discharge permit or other department permit, department order or a memorandum of understanding with other regulating agencies; and
- (e) For a Class G2 or Class G3 ground water, the enforcement standard shall be based on the best available scientific knowledge including, but not limited to, the background water quality, the use of U.S. Environmental Protection Agency water quality criteria and Health Advisories, other states water quality criteria, and risk assessment calculations. The value utilized will depend on the class of ground water, and technological and economic factors.

1111.6 A request for variation from the enforcement standards of subsection 1111.5 for any class of groundwater be made to the Department. The request, by the responsible party, shall be based on both the technological and economic analyses. The responsible party shall demonstrate to the satisfaction of the Department that cleanup to the enforcement standard is both technologically and economically infeasible. The request shall propose an alternate cleanup level.

1111.7 Early Warning Values ("EWV") are established to protect ground waters from contamination and to avoid costly remediation by providing for early detection of increasing contaminant concentrations before the criteria or enforcement standards are exceeded.

1111.8 EWV's are applicable to facilities or activities with a potential to contaminate ground water and which are required to monitor the impact of their activities on ground water quality.

1111.9 Whenever a criterion or an enforcement standard is set above background level, an EWV or trend analysis shall be utilized.

1111.10 Early Warning Values shall be determined by either of the following:

- (a) When the regulated substance is not found in the

background water quality or is present in levels lower than the criterion or the enforcement standard then the EWV shall be:

- (1) Level of detection for all synthetic constituents for which no natural source exists;
 - (2) 20% of the criterion or enforcement standard for substances of health concern;
 - (3) 50% of the criterion or enforcement standard for substances of public welfare concern; or
 - (4) EWV for specific criteria are according to Subsection 1111.3; or
- (b) When the regulated substance is found in the background water quality in a concentration that exceeds the criterion or enforcement standard for that substance, then the EWV shall be set between background and the criterion or enforcement standard in such a way that increasing or decreasing contaminant levels will be detected.

1111.11 Should the permittee or regulated person desire, a trend analysis in lieu of fixed values for EWV's may be used. The trend analysis must use a scientifically sound and valid statistical procedure appropriate to the discharge and shall provide a 99% level of confidence. The design and implementation of the trend analysis shall be the responsibility of the permittee and must be approved by the Department. Response levels shall be defined for each trend analysis but at a minimum shall include those levels as defined in subsection 1111.3.

1111.12 It shall not be considered a violation of these regulations when pollutants are detected in concentrations exceeding an EWV unless:

- (a) The pollutant concentrations exceed the numerical criterion of Subsection 1111.3 and the enforcement standards of Subsection 1111.5; and/or
- (b) There is failure to inform the Department or respond as required in subsection 1111.13.

1111.13 The following procedures shall apply when a substance(s) is detected at the point of compliance and an EWV is attained or exceeded, or a net change in concentration is detected through an approved trend analysis:

- (a) The permittee or responsible party must notify the Department, in writing, within 30 days; and
- (b) Upon receiving notification, the Department may require the permittee or responsible party to perform one of the following:
 - (1) No Action;
 - (2) Resample wells to verify results;
 - (3) Revise the monitoring plan including increased monitoring; or
 - (4) Complete a report documenting the extent of contamination, contamination sources and discuss alternative methods of operation.

1112 REMEDIAL ACTION PROTOCOL FOR POINT SOURCE CONTAMINATION OF GROUND WATER

(Reserved)

1113 GROUND WATER MONITORING FOR POTENTIAL CONTAMINATION

1113.1 Except as specified in subsection 1113.2 these monitoring requirements apply to the owners and operators of landfills, piles, land spreading disposal facilities, surface impoundments, waste discharge facilities, and other activities with a potential to contaminate ground water.

1113.2 These monitoring requirements do not pertain to departmental programs and other activities already covered by a promulgated rule that has specific monitoring requirements including the federal discharge permits program and Hazardous Waste Management, DCMR Title 20, Chapter 40.

1113.3 All permitted facilities requiring ground water monitoring must submit for approval, a ground water monitoring program to determine representative background water quality and the quality of the water passing the point of compliance. Background monitoring points should be located at points where potential sources of ground water contamination from the permitted site will not affect ground water quality. The monitoring program shall include, but not be limited to, the uppermost aquifer and any aquifer in the point of compliance that is hydrologically connected to the surface waters of the District and antidegradation segments of Subsection 1101.7 and

drinking water aquifers of adjacent jurisdictions. At a minimum, the monitoring program shall include the following:

- (a) One upgradient well and three downgradient wells installed at appropriate locations and depth to yield ground water samples from the uppermost aquifer and all hydrologically connected aquifers below the active portion of the facility;
- (b) All monitoring wells must be cased to maintain the integrity of the monitoring well bore hole. The casing must allow collection of representative water samples. The well must be constructed in such a manner as to prevent contamination of the samples, the sampled strata, water bearing aquifers and prevent contamination between aquifers;
- (c) A sampling and analysis plan;
- (d) A quality assurance and quality control plan;
- (e) A quarterly sampling frequency for the first two years. If early warning values are not reached or a trend analysis shows no significant contamination, sampling frequency will either be reduced or discontinued on approval of the Department; and
- (f) Submittal of an annual report of monitoring results notwithstanding requirements pursuant to Subsection 1111.12.

1113.4 Monitoring may be required for nonpermitted point and non-point source activities with a potential to contaminate ground water.

1114 ENFORCEMENT

1114.1 This Chapter shall be enforced pursuant to the Water Pollution Control Act of 1984, D.C Law 5-188, as amended.

1114.2 All laboratory examinations of samples collected to determine compliance with these water quality standards shall be performed in accordance with procedures approved by the U.S. Environmental Protection Agency.

1114.3 All field analyses and measurements to determine compliance with these water quality standards shall be conducted in accordance with standard procedures

specified by the Department.

1114.4 Nothing in these water quality standards shall be interpreted as alleviating any discharger from meeting more stringent water quality standards of downstream or downgradient jurisdictions.

1114.5 Primary contact recreation is prohibited in the Potomac and Anacostia rivers until such time as the standards in Section 1104 for Class A beneficial use are consistently maintained.

1104

When used in this chapter, the terms and phrases defined in this section shall have the meanings ascribed:

"Acute toxicity" - means the concentration of a substance which is lethal to fifty (50) percent of the test organisms within ninety six (96) hours, referred to as the LC50.

"Ambient" - means those conditions existing before or upstream of a source or incidence of pollution.

"Aquifer" - means a geologic formation, group of formations, or part of a formation that is sufficiently permeable to yield economically significant quantities of water to wells and springs.

"Background water quality" - means the levels of chemical, physical, biological, and radiological constituents or parameters upgradient of a facility, practice, or activity and which have not been affected by that facility, practice, or activity.

"Beneficial uses" - means uses of waters of the District which include but are not limited to use for fish, shellfish, recreation, industrial water, generation of electric power, irrigation, surface water recharge, current and potential use for domestic purposes within the District and in jurisdictions downgradient of the District.

"Best management practices" - means one or several practices found to be the most effective and practical means of preventing or reducing point and non-point source pollution to levels that are compatible with water quality goals.

"Chronic toxicity" - means the concentration of a substance which causes an adverse effect to a test organism.

"Contamination" - means an impairment of water quality by biological, chemical, physical, or radiological materials which lowers the water quality to a degree that creates a potential hazard to the environment or public health or interferes with a beneficial use.

"Criteria" - means numerical values or narrative statements necessary to maintain the given designated beneficial uses.

"Department" - means the Department of Consumer and Regulatory Affairs.

"Detection level" - means the level at which a constituent can be detected by a Department approved method of analysis.

"District" - means the District of Columbia.

"Early warning value" - means a concentration which is a percentage of or level of detection for a ground water quality criterion or enforcement standard.

"Enforcement standard" - means the value assigned to a contaminant for the purpose of regulating an activity and may or may not be the same as the criterion for that contaminant.

"Ground water" - means that part of the subsurface water that is in the zone of saturation, including underground streams.

"Intermittent stream" - means a water course which has no flow for a period of seven (7) consecutive days on a frequency of at least once a year.

"Landspreading disposal facility" - means a facility that applies sludges or other solid wastes onto the land or incorporates solid waste in the soil surface at greater than vegetative utilization and soil conditioners/immobilization rates.

"Landfill" - means a disposal facility or part of a facility which solid waste is permanently placed in or on land and which is not a landspreading facility.

"Mixing zone" - means an area, contiguous to a discharge, in which dilution occurs such that there is a transition between effluent limitations and water quality standards.

"Narrative criteria" - means a condition that should not be attained in a specific medium to maintain a given beneficial use.

"Nonpoint source pollution" - means pollution that endangers any water of the District from any dispersed land based or water-based activities, including but not limited to surface water runoff from construction sites, subsurface or underground sources and atmospheric deposition.

"Numerical criteria" - means the maximum level a contaminant shall not exceed, or the minimum level of a constituent that shall be attained, or the acceptable range of a parameter in water that shall be attained to maintain a given beneficial use.

"Permitted" - means an activity, facility or entity authorized through a department permit to treat, store, or dispose of materials or wastes.

"Point of compliance" - means the point or points where the water quality enforcement standard or criterion must not be exceeded.

"Point source" - means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, or concentrated animal feeding operation from which contaminants are or may be discharged.

"Pollution" - means the man-made or man-induced alteration of the chemical, physical, biological, or radiological integrity of water.

"Pollutant" - means any gas, liquid, solid, or any combination thereof introduced into the waters of the District that causes pollution.

"Primary contact recreation" - means those water contact sports or activities which result in frequent whole body immersion and/or involve significant risks of ingestion of the water.

"Remedial action" - means any immediate or long term response to a pollution occurrence including cleanup, restoration, mitigation, and any other action approved or required by the Department.

"Responsible party" - means any person who has caused or is causing pollution or has created or is creating a condition from which pollution is likely to occur.

"Secondary contact recreation" - means those water contact sports or activities which seldom result in whole body immersion and/or do not involve significant risks of ingestion of the water.

"Solid waste" - means all putrescible and non-putrescible solid and semisolid wastes, including but not limited to garbage, rubbish, ashes, industrial wastes, swill, demolition and construction wastes, abandoned vehicles or parts thereof, and discarded commodities. This includes all liquid, solid and semisolid, materials which are not the primary products of public, private, industrial, commercial, mining, and agricultural operations.

"Standards" - means those regulations, in the form of numerical, narrative, or enforcement standards which specify a level of quality of the waters of the District necessary to sustain the designated beneficial uses.

"Surface impoundment" - means a facility or part of a facility which is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials), and which is designed to hold an accumulation of liquids or sludges.

"Surface waters" - means all rivers, lakes, ponds, wetlands, inland waters, streams, and all other water and water courses

within the jurisdiction of the District of Columbia.

"Trend analysis" - means a statistical methodology used to detect net changes or trends in contaminant levels over time.

"Waters of the District" - means all waters within the jurisdiction of the District of Columbia including all streams, rivers, creeks, runs, canals, estuaries, ground waters, lakes, ponds, springs, wells, drainage systems, marshes, wetlands, watercourses, and all other accumulations of water, surface or underground.