APPENDIX A

VILLAGE OF CROTON-ON-HUDSON
DRAFT WATER SUPPLY SOURCE
PROTECTION RULES AND REGULATIONS

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RULES AND REGULATIONS

INTRODUCTION

The Village of Croton-on-Hudson's water supply is obtained from sand and gravel deposits laid down in the Croton River valley. This valley-fill aquifer is primary source of drinking water for the Village of Croton-on-Hudson and is located in the northern portion of the village; the area which contributes water to this aquifer includes parts of both the Village of Croton-on-Hudson and the Town of Cortlandt.

River valley aquifers usually underlie the river form a band on either side of the stream. These bands tend for varying distances upstream of smaller tributaries. Ground-water flow in valley-fill aquifers is generally toward the river which forms the discharge point. Ground-water flow patterns are modified by pumping wells which create a cone of influence.

Pollution of ground water is more difficult to clean up than pollution of surface water. Ground water is afforded little dilution because of the laminar flow which resists mixing and because of the slow movement. Where water is withdrawn from the ground and then returned for disposal, as

with subsurface sewage disposal, contaminants accumulate in the ground water.

Normal domestic activities, both residential and commercial, result in the discharge, on a widespread basis, of small quantities of nondegradable metals, salts hydrocarbons, nitrates, and other toxic substances. Even small quantities of soluble organic chemical substances when discharged at or below the land surface, can migrate to the water table and seriously contaminate the ground water. Limitations of future developmental density and strict management of the use of the land in the Village of Croton-on-Hudson and the Town of Cortlandt, specifically in the areas adjacent to the Croton River and the well field, are essential to control potential pollutants and prevent degradation of drinking water quality.

The purpose of this regulation is to preserve, protect, and maintain the existing purity and quality of the ground water within the Village of Croton-on-Hudson. It will establish protective land-use regulations for the watershed affecting the well field.

Ground-Water Zones

There are three zones affecting the quality of the aquifer and a degree of regulation or management for each is required if the water-supply source is to be protected from contamination. The three zones are as follows:

1. Wellhead protection area, including the cone of influence.
2. Recharge area of the aquifer.
3. Watershed area tributary to recharge area.

This three-zone system will be superimposed on existing land-use zones. The requirements of the underlying districts shall continue to apply. Permitted uses, except where prohibited by this regulation, shall also continue to apply. In the event of conflict between this regulation and any other regulation, the more restrictive requirements shall control.

The wellhead protection area is defined by this study to be the area designated by Figure 1; it includes at a minimum the area within 200 ft of the well and the cone of influence.

The cone of influence is created when the drawdown caused by pumping of the ground water creates a pressure gradient which induces a flow of ground water toward well. Any contaminant that reaches the ground water within this cone of influence will be drawn to the well. This cone of influence may cause a disruption of the normal ground-water flow patterns because water normally flowing parallel to the well or downgradient from the well may be directed toward the well.

Additional protection is needed for ground-water supplies, which are vulnerable to contaminant-generating activities outside the wellhead protection area, such as area and river valley aquifers where the water-bearing formations extend to the surface. Controls over recharge area and the watershed tributary (surface water) to the recharge area are needed.

The recharge area is the area where precipitation rapidly infiltrates into the ground and into an aquifer where it will flow towards the point(s) of withdrawal. Such aquifers are characterized by water-bearing deposits of sand and gravel with high permeability and porosity. contaminant-producing activity in this area will travel rapidly to the ground water.

River valley aquifers are replenished not only by direct infiltration of precipitation, but also by runoff from that portion of the watershed tributary to the recharge area, an area composed of relatively impervious consolidated and unconsolidated material. Typically, runoff flows overland and in defined stream beds until reaching the recharge area where it seeps underground. In large streams, water may flow through the recharge area in times of high water tables and high flows. The large stream will generally have a continuous flow of water; the exchange between surface and ground water will take place either to the stream or to the aquifer depending upon water conditions, the location of withdrawal points, and the relative size of withdrawals.

STATEMENT

Water supply sources are subjected to contaminants from the following sources:

1. Wastewater discharges to surface and ground water.

2. Improper handling and disposal of waste material.

3. Improper handling, storage and use of materials which are, or may be, contaminating.

4. Accidental spills of contaminating material from storage, during transit or during use.

5. Water, land, and air resource use which may adversely affect water quality.

Public water supply sources have been contaminated in numerous instances because of systems, facilities, and activities which were not properly managed or were not appropriately located in relation to public water supply sources. The people of the State of New York have a right to expect and the Commissioner of Health is obligated to see that every reasonable precaution and measure is taken to protect water supply sources from contamination and that safe drinking water is available from public water supply sources and systems.

The aquifer protection is hereby extended over the entire watershed as delineated in Figure 1, at a scale of 1 inch equals 500 feet. The severest restrictions apply to Zone 1 and the least severe restrictions apply to Zone 3. With additional research, the zone boundaries may change; in this case, the criteria used to set up the boundaries shall control.

In order to assure the adequate protection of sources of public water supply, the Village of Croton-on-Hudson institutes the promulgation of the following regulations.

Scope

Minimum requirements are hereby presented to protect public water-supply sources from contamination. All the activities detailed below may not presently occur in the watershed; however, this document will provide guidance in the future with continued growth of the village.

Definitions

1. Aquifer shall be the water-saturated subsurface geologic formations which are now or may subsequently be developed for use as public water supply sources, including the Croton River aquifer from which the village takes its supply.

2. Aquifer recharge area shall be the land area where precipitation, snow and rain, percolates directly through the ground to an aquifer. The aquifer recharge area shall also be known as Zone 2.

3. Best management practices shall be those methods and practices which are developed and adopted by the United States Environmental Protection Agency, the New York State Department of Environmental Conservation, and the County of Westchester to control non-point and point sources of pollution.

4. Chloride salt shall mean the solid compounds or the solutions of potassium chloride (commonly used as fertilizer), calcium chloride (commonly used for winter road maintenance), or sodium chloride (halite)(commonly used for winter road maintenance and water softener regeneration).

5. Composting toilet or dry toilet shall be any receptical for human excreta and/or kitchen waste which is a self-contained unit requiring periodic removal of composted material

6. Cone of influence shall mean the area where the drawdown of the ground water, caused by water withdrawal from the well, creates a pressure gradient which induces a flow of ground water toward the point of withdrawal.

7. Environmental impact assessment shall be as defined in 6 NYCRR 615.1(c): a written evaluation prepared by a permit applicant which provides a description of a proposed project or development and a detailed analysis of its environmental effects.

8. Fertilizers shall be any commercially produced mixture generally containing phosporous, nitrogen, and potassium which is applied to the ground to increase nutrients to plants.

9. Flood plain shall be the 100-year high water level of streams, ponds, estuaries, and lakes.

10. Ground water shall be any water beneath the land surface in the saturated zone that is under atmospheric or artesian pressure and that enters wells and springs.

11. Herbicide shall mean any substance used to destroy or inhibit plant growth.

12. Human excreta shall mean human feces and urine.

13. Junkyard shall mean an area where two or more unregistered, old, or secondhand motor vehicles are being accumulated for purposes of disposal, resale of used parts, or reclaiming certain materials such as metal, glass, fabric, and/or the like.

14. Land application of wastewater shall be the distribution of municipal or industrial wastewater by spray irrigation or direct flow, over the land surface with or without an underdrain system and point discharge(s)

15. Linear distance shall mean the shortest horizontal distance from the nearest point of a structure or object to the high water mark of a reservoir or to the edge, margin, or steep bank forming the ordinary high water line of a watercourse

16. New York City reservoir shall be the reservoirs used by the City of New York, including the Croton reservoir system.

17. Non-point pollution shall mean pollutants resulting from facilities, systems, and activities which are not specifically covered by effluent permits issued under Title 8 Section 17-0803 of the Environmental Conservation Law.

18. Pesticide shall mean any substance used to destroy or inhibit pests, such as rodents and insects.

19. Point source pollution shall mean pollutants resulting from facilities, systems, and activities which are covered and operate under a permit issued pursuant to Title 8 Section 17-0803 of the Environmental Conservation Law.

20. Pollutant shall mean dredge, spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, chemical waste, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into water.

21. Radioactive material shall mean any material in any form that emits radiation spontaneously Radiation shall mean ionizing radiation, that is any alpha particle, beta particle, gamma ray, x-ray, neutron, high-speed proton, and any other atomic particle producing ionization, but shall not mean any sound or radio wave, or visible, infrared, or ultraviolet light

22. Refuse shall mean all putrescible and nonputrescible solid wastes, including garbage, manure, rubbish, ashes, incinerator residue, street cleanings, dead animals, offal, and solid commercial and industrial wastes.

23. Refuse disposal area shall mean land used for the depositing of refuse except that it shall not include the land used for the depositing of refuse from a single family, a member of which is the owner, occupant, or lessee of said land, or any part of a farm on which only animal wastes resulting from the operation of such farm are deposited.

24. Reservoir shall mean any natural or artificial lake or pond which is tributary to or serves as a source of the community water supply.

25. Septage shall be that residue removed from on-site wastewater disposal systems.

26. Sewage shall mean any liquid or solid waste matter from a domestic, commercial, private, or industrial establishment which is normally carried off in sewers or waste pipes.

27. Sewage disposal system shall mean any system used for disposing of sewage, including an on-site disposal system and its seepage unit.

28. Sewage system cleaner or additive shall be as defined in Article 39 of the Environmental Conservation Law.

29. Single-use lakes and impoundments shall be any and all natural lakes or man-made lakes created by impounding a free-flowing water course which have the provision of potable water as their sole intended use.

30. Sludge shall be the solid residue resulting from a municipal or industrial process or wastewater or water treatment which also produces a liquid stream of effluent.

31. Small lakes and ponds shall be water bodies with a surface area of 2.5 square miles or less.

32. Surveillance zone shall be a ground-water management zone as delineated herein; they shall be designated Zone 1, Zone 2, and Zone 3 for ground water.

33. Toxic chemical shall mean any organic or inorganic substance including but not limited to petroleum derivatives, any metallic elements including the transition series, and any hazardous wastes which pose a substantial present or potential threat of producing injury or disease upon exposure, ingestion, inhalation, or assimilation by a living organism.

34. Treatment works shall mean any treatment plant, sewer, disposal field, lagoon, pumping station, septic system, constructed drainage ditch, or surface water intercepting ditch, incinerator, area devoted to sanitary landfill, or other works not specifically mentioned in this paragraph, installed for the purpose of treating, neutralizing, stabilizing, or disposing of sewage.

35. Watershed tributary to aquifer recharge area is that land area which is the tributary surface from which the aquifer is replenished by runoff to the aquifer recharge area. The watershed tributary to the aquifer recharge area shall also be known as Zone 3.

36. Water supply shall mean the public water supply of the community.

37. Watercourse shall mean every spring, stream, marsh, or channel of water of any kind which flows or may flow into the community water supply.

38. Watershed is that land area which contributes surface water to a specific stream or lake or a delineated portion thereof.

39. Well shall be any present and future artificial excavation used as a source of public water supply which derives water from the intersticies of the rocks or soils which it penetrates, including bored wells, drilled wells, and driven wells and excluding ditches or tunnels that lead ground water to the surface by gravity.

40. Wellhead protection area shall be the area of the well field itself with a protective perimeter around each of the wells. This shall be known also as Zone 1.

41. Zone 1 shall be the wellhead protection area as designated on Figure 1 included with the regulation.

42. Zone II-G shall be the aquifer recharge area as designated on Figure 1 included with this regulation.

43. Zone 3 shall be the watershed tributary to the aquifer recharge area as designated on Figure 1 included with this regulation.

General Provisions

A. Surveillance zones shall be designated by this regulation.

B. Inspections shall be made by the Department of Health and the water supply owner in accordance with a schedule determined by the Department of Health and water supply owner to determine that the details of this regulation are being followed.

C. Permits and approvals by state agencies or political subdivisions shall not be issued for the manufacture, use, storage, disposal or discharge of any products, materials or by-products, such as liquid or solid wastes within the zones which might adversely affect water supply sources, including but not limited to SPDES permit; on-site disposal systems; land application of wastewater; disposal wells; recharge basins; landfills; septage and sludge disposal; hazardous materials and toxic manufacture, storage, transportation, use and disposal; radiological material; wastewater lagoons and pits; pesticide storage and use. All permits must be in conformance with these rules and regulations and ensure that the standards for raw water quality as contained in 10 NYCRR 170 and 6 NYCRR 703 are met. No systems, facilities, or activities which would significantly degrade existing water quality are to be permitted.

All water suppliers in the area, regional health offices, County Health Department and the Commissioner of Health, the Water Commissioner for the Village of Croton, Planning and Zoning Boards of Croton, and the Village Engineer shall be afforded an opportunity to comment on the permit applications for systems, facilities, and activities in the zones before action is taken, and copies of all permits issued shall be sent to these agencies. Permit

applications shall be sent to the water supply interests within 10 days of receipt; 30 days shall be allowed for review and comment by the interested agencies. No response shall be considered as having no objections. Copies of permits issued shall be sent to the interested agencies on the date of issuance.

D. Monitoring of water quality in the surveillance zones shall be the responsibility of the Village of Croton's Water Department. A monitoring schedule shall be established that will develop an information base to demonstrate both acute and chronic changes in water quality over time. This requirement is in addition to monitoring intake raw water.

E. Exceptions to the rules and regulations may be granted by the Commissioner of Health after appropriate study and review, based on prior usage or unique local conditions, if, in his judgment, the health and safety of the consuming public will be protected because of treatment provided or other remedial action taken. Such exceptions shall be given in writing and only given after a hearing on the question has been held.

F. Environmental assessments shall be prepared by all state and local agencies covering (1) all continuing program activities and (2) special projects within the surveillance

zones that may adversely affect water quality. The commissioner may require a full environmental impact statement in accord with 6 NYCRR 617 if the environmental review warrants. Any significant change in program activities requires an environmental assessment. All program environmental assessments shall be revised and updated every 5 years.

G. Potential water supply sources not yet developed and utilized may have surveillance zones designated by the Commissioner of Health to allow management of water bodies, watersheds, and ground-water recharge areas and to preserve water quality for water supply purposes, providing the Commissioner of Environmental Conservation has designated the specific water resource as a public water supply reserve.

H. An inventory and census shall be initiated and updated on a regular basis by the supplier of all systems, facilities, and activities in the surveillance zones that may contribute to water supply source contamination including, but not limited to the following:

1. Land use.
2. Population.
3. On-site disposal systems.
4. Dwelling units.
5. Domestic animals.
6. Pesticide and herbicide storage and use.

7. Deicing salt storage and application.
8. Landfills and dumps.
9. Wastewater storage pits and lagoons.
10. Animal waste storage.
11. Land application of wastewater, sludge and septage disposal.
12. Disposal wells.
13. Recharge basins.
14. Toxic waste manufacture, storage, transportation, and use.
15. Fertilizer storage and application.
16. Surface and underground storage of gasoline, oil, or other contaminating materials.
17. Commercial and industrial activity.
18. Point source discharges.
19. Storm sewer discharges.
20. Junkyards.
21. Agricultural activity.
22. Accidental spills.
23. Sediment generation and control practices.
24. Permits issued to regulate systems, facilities, and activities.

Ground-Water Protection Zones

A. Surveillance Zones for Ground-Water Sources

Zone 1 is the wellhead protection area. Zone 2 is the aquifer recharge area. Zone 3 is the watershed area tributary to the recharge area.

B. Specific Regulations Zone 1

i. All land shall be protected and controlled through direct ownership of the land or through the acquisition of protective easements or other appropriate measures by the owner of the water supply in order to prevent pollution of the ground or ground water.

ii. All systems, facilities, and activities are prohibited except for physical pumping and treatment facilities and controls. The area shall not be used for any other purpose than public water supply.

iii. All wellheads and containment buildings must be in conformance with federal, state, and local flood plain management or similar regulations or ordinances to prevent their contamination by flood waters. This area shall further be protected from pollution by surface waters originating outside thereof by the construction of suitable diversion ditches or embankments. The development of the water sources shall be so carried out that there shall be no opportunity for pollution to enter the water sources.

iv. The physical pumping facilities and controls shall be protected against damage from tampering by fencing or other suitable enclosures or by their manner of construction and installation.

v. The area shall be posted prohibiting trespass for any purpose.

C. Specific Regulations Zone 2

i. On-Site Disposal Systems

a. All on-site disposal systems serving single-family residences of 10 persons or less, or with flows of less than 1,000 gallons per day shall be designed, installed, and maintained in accordance with the sanitary code and the standards promulgated in 10 NYCRR 75. Local county sanitary codes and town, city, and village ordinances shall also apply if they contain more stringent standards.

b. A permit is required prior to installation of any subsurface disposal system. This permit must be obtained from the county health department or in the absence of such department from the district health office having local jurisdiction. Conditions for a permit shall be reviewed and approved by Village of Croton-on-Hudson and shall include an approved engineering plan, verification of the percolation rate by

a disinterested party, and inspection of installation prior to backfilling. Permits are renewable on a 5-year basis. All septic tanks shall be pumped clean every 5 years or more often if condition warrants.

c. The applicable standards and permit requirements of the Department of Environmental Conservation shall apply to systems with flows in excess of 1,000 gallons per day or those which contain industrial wastewater.

d. The use of sewage system cleaners or additives is prohibited.

e. Where conditions warrant, water conservation plumbing fixtures may be required, and nonessential water-using appliances, such as garbage disposals, dishwashers, and clothes washers, may be prohibited.

f. Where there is evidence that chlorides and/or nitrates are increasing at an undesirable rate, the density of subsurface seepage systems may be prohibited or limited by requiring minimum lot sizes or sewers for future development.

g. All composting toilets of the type that dispose of human excreta, wash waters, and sink wastes require a permit from the county health department or, in the absence of such department, the district health office having local jurisdiction.

ii. Land Application of Wastewater

Land application of wastewater is prohibited.

iii. Disposal Wells

Disposal wells are prohibited.

iv. Storm Water Runoff Recharge Basins

Use of recharge basins is prohibited.

v. Snow Disposal

The stockpiling of snow removed from urban areas onto the ground surface is prohibited.

vi. Refuse Disposal Areas and Junkyards

a. The establishment of refuse disposal areas and junkyards is prohibited. The continued operation of existing refuse disposal areas is prohibited after 1 January 1989.

b. A comprehensive monitoring program for existing and abandoned refuse disposal areas in accordance with 6 NYCRR 360 is required.

vii. Animal Wastes

a. Farm animal wastes shall not be concentrated except where provision has been made to prevent seepage to the ground water. Suitable storage facilities are required when it is not possible to spread or dispense waste on a daily basis.

b. In urban areas, pet owners are required to provide for animal waste disposal on an individual basis.

viii. Land Application of Septage and Municipal Sludges

Land application of septage and municipal sludges is prohibited.

ix. Leaking Sewers

a. All sewers installed shall be as tight as the state of the art allows.

b. Remedial measures shall be taken by the owner if evidence indicates excessive infiltration or exfiltration is occurring.

c. New sewers shall meet the tightness specifications for water mains as a minimum.

x. Industrial Sludge and Toxic Chemicals

a. No toxic chemical identified by the U.S. Environmental Protection Agency or the Department of Environmen- Conservation shall be stored except under permit from those agencies and from the Village of Croton.

b. Disposal of toxic chemicals and industrial sludge is prohibited.

c. Toxic chemicals shall not be buried in the soil, spread upon the surface on the ground, or allowed to enter ground waters.

d. Transportation of toxic chemicals is prohibited except under permit of the Department of Transportation pursuant to Article 2, Sections A through F of the transportation law.

xi. Wastewater Lagoon and Pits

Use of wastewater lagoons and pits for temporary storage of wastewater is prohibited. All storage facilities shall be watertight and aboveground and under permit by the Department of Environmental Conservation.

xii. Radioactive Material

a. Disposal of radioactive material is prohibited.

b. Transportation of radioactive material is prohibited except under permit of the Department of Transportation pursuant of Article 2, Sections A through F of the transportation law.

xiii. Fertilizer Use

a. Open storage of artificial fertilizers for commercial use is prohibited.

b. Agricultural use of fertilizers shall be in conformance with best management practices as developed by the State Soil and Water Conservation Committee and as implemented by the preparation and use of farm plans as required by Soil and Water Conservation District Law, Section 9, Subdivision 7a.

c. Fertilizer use for nonfarm and nonresidential application shall be in accordance with best management practices as developed under Item b.

xiv. Pesticide and Herbicide Use

a. No pesticides or herbicides shall be used until an environmental assessment is made specifically addressing the question of groundwater contamination

b. All pesticide and herbicide storage, use, and application shall be under permit as provided in Environmental Conservation Law Article 33.

c. Use of streams for make-up water or washing of equipment is prohibited

d. Disposal of containers and washing of equipment used in conjunction with pesticides and herbicides is prohibited.

xv. Accidental Spills

a. Oil spills shall be reported and cleaned up pursuant to Navigation Law Sections 170 through 197

b. Spills of any other material stored in bulk shall be reported as required by the Environmental Conservation Law, Section 1743. Cleanup of spills is the responsibility of the owner; in case of material in

transit, cleanup is the responsibility of the carrier.

c. The Commissioner of Health shall be advised of any accidental spills within 48 hours.

xvi. Stockpiles

a. Storage of chloride salts is prohibited except in waterproof buildings or in watertight vessels.

b. Storage of coal is prohibited except in watertight buildings or on a watertight surface which prevents seepage and runoff.

xvii. Deicing Salt Application

a. Deicing salt use is restricted to the minimum amount needed for public safety in accordance with best management practices as developed by the Department of Transportation.

b. Calcium chloride shall be used instead of sodium chloride where necessary to limit sodium input to waters

xviii. Cemeteries

All cemeteries shall be operated in accordance with Department of Health rules and regulations.

xix. Underground Storage Tanks and Pipelines

a. Underground storage of petroleum products or any other toxic chemicals or radioactive material is prohibited unless measures have been taken to ensure that leakage will not occur.

b. Any spills or leaks shall be reported as provided for in Item xv.

c. The owner of any underground storage tank or pipeline is responsible for prompt reporting of any spills or leaks and for the costs of cleanup.

xx. Atmospheric Fallout

Appropriate monitoring of the constituents of precipitation shall be undertaken by the Village of Croton-on-Hudson Water Department and the Departments of Health and Environmental Conservation, and where data indicate appropriate action shall be taken.

xxi. Land Use Management

a. Where ground water deterioration is likely to be caused by land development, municipal officials and the Department of Health shall ensure that appropriate zoning and other controls are implemented to protect the ground water, including, where appropriate, the designation of the aquifer as "sole source" as permitted in Section 1442(e) of the Safe Drinking Water Act.

b. Environmental assessments must be prepared for the following and submitted to the Department of Health for review and comment before any permits are issued.

1. Excavations or cut-ins which expose ground water permanently or during maximum elevation of the water table, or which significantly reduce the thickness of the soil cover and thereby ease the entrance of contaminants into ground waters

2. The establishment of sand and gravel mining operations

3. The construction of overhead transmission lines, liquified natural gas lines or other pipelines for materials which can impair water quality.

4. Major surface transportation corridors.

xxii. Improperly Constructed or Abandoned Wells

a. All oil and gas wells shall be constructed in accordance with the requirements of the Department of Environmental Conservation.

b. All water supply wells shall be constructed in accordance with the requirements of the Department of Health.

c. All abandoned wells shall be sealed in accordance with requirements for oil and gas wells and requirements for water supply wells.

D. Specific Regulations Zone 3

1. On-Site Disposal Systems

a. All on-site disposal systems serving single-family residences of 10 persons or less or with flows of less than 1,000 gallons per day shall be designed, installed, and maintained in accordance with the sanitary code and the standards promulgated in local county sanitary codes; town, city, state, and village ordinances shall also apply if they contain more stringent standards.

b. A permit is required prior to the stallation of any subsurface disposal systems. This permit must be obtained from the county health department or in the absence of such department from the district health office local jurisdiction. Conditions for a permit shall be reviewed and approved by the Village of Croton-on-Hudson and shall include an approved engineering plan, verification of the percolation rate by a disinterested party and inspection of the installation prior to backfilling. Permits are renewable on a 5-year basis. All septic tanks shall be pumped clean every 5 years or more often if conditions warrant.

c. The applicable standards and permit quirements of the Department of Environmental Conservation shall apply to systems with flows in excess of 1,000 gallons per day or those which contain dustrial wastewater.

d. The use of sewage system or septic system cleaners or additives are prohibited.

e. Where conditions warrant, water conservation plumbing fixtures may be required, and nonessential water-using appliances such as garbage disposals, dish washers, and clothes washers may be prohibited.

f. No portion of the seepage unit shall be constructed, placed, or rebuilt within 50 ft linear distance of the recharge area or tributary water courses.

g. Where rapid percolation is indicated, such as in rock fissures, the use of subsurface disposal systems may be prohibited.

ii. Point Discharge

Point source discharges to tributary streams are prohibited unless treatment equivalent to sand filtration and disinfection is provided for domestic wastewater and equivalent treat-

ment for industrial wastewaters. All effluents will meet drinking water standards.

iii. Storm Sewer Outlets

Storm sewer outlets shall not discharge directly to streams and water courses. Provision shall be made to discharge to the surface of the ground 100 ft from a water course and a recharge area.

iv. Snow Disposal

The dumping of snow removed from streets, roads, and parking areas directly into streams is prohibited.

v. Refuse Disposal Areas and Junkyards

a. No refuse shall be deposited on or beneath the surface of the ground within a 250 ft linear distance of any water course or Zone 2.

b. Solid waste disposal facilities shall conform to 6 NYCRR 360 and be under permit.

c. Abandoned refuse disposal areas should be investigated, monitored when warranted, and remedial action undertaken if undesirable conditions are present.

d. No junkyards shall be located within a 250 ft linear distance of any water course or Zone 2.

vi. Animal Wastes

a. No concentrations of animal wastes from an agricultural operation, including but not limited to manure piles, feedlots, barnyards, and yarding areas, shall be located within a 100 ft linear distance from any water course or Zone 2.

b. Barnyards, feedlots, yarding areas, and manure piles shall be separated from streams by ditches or surface grading to prevent their runoff from entering streams.

c. Drainage from barnyards, feedlots, yarding areas, or manure piles shall not be be discharged directly to any water course or to Zone 2. Such drainage shall be dispersed over the surface of the ground at a minimum distance of 250 ft linear distance from any water course or from Zone 2.

d. Provision shall be made for satisfactory disposal of milk house waste either by surface or subsurface irrigation that prevents any discharge to any water course or Zone 2. Such facilities shall be located at least 100 ft linear distance from any water course or Zone 2.

e. Manure shall not be spread on frozen ground if there is any likelihood that surface runoff will be carried into streams.

f. Pet owners in urban areas must provide for animal waste disposal on an individual basis.

vii. Septage and Sludge Disposal

a. No septage, municipal sludge, or human excreta shall be disposed of unless deposited in trenches or pits at a linear distance of not less than 250 ft from any water course or Zone 2 and covered with not less than 1 ft of soil in such manner effectively to prevent it from being carried into any water course or into Zone 2 by surface runoff.

b. All disposal of septage, municipal sludge, or human excreta shall be done only under permit issued by the Department of Environmental Conservation or Department of Health as appropriate.

viii. Industrial Sludges and Toxic Chemicals

a. No industrial sludges and toxic chemicals shall be stored except under permit by the U.S. Environmental Protection Agency and the Department of Environmental Conservation.

b. Disposal of industrial sludges and toxic chemicals is prohibited.

c. Toxic chemicals shall not be buried in the soil, spread upon the surface of the ground, or allowed to enter ground waters.

d. Transportation of toxic chemicals is prohibited except under permit of Department of Transportation pursuant to Article 2, Sections A through F of the transportation law.

ix. Radioactive Material

Disposal of radioactive material is prohibited.

x. Fertilizer Use

a. Open storage of artificial fertilizers for commercial use is prohibited.

b. Agricultural use of fertilizers shall be in conformance with best management practices as developed by the State Soil and Water Conservation Committee and implemented by the preparation and use of farm plans as required by the Soil and Water Conservation District Law, Section 9, Subdivision 7a.

c. Fertilizer use for nonfarm and nonresidential application shall be in accordance with best management practices as developed under Item b.

xi. Pesticide and Herbicide Use

a. All pesticide and herbicide storage, use and application shall be under permit as provided in Environmental Conservation Law, Article 33.

b. Disposal of containers of unused pesticides and herbicides is prohibited except in accordance with the permit issued as indicated under Item a.

c. Use of streams for make-up water or washing of equipment is prohibited.

xii. Accidental Spills

a. Oil spills shall be reported and cleaned up pursuant to the Navigation Law Sections 170 through 197.

b. Spills of any material stored in bulk shall be reported as required by Environmental Conservation Law Section 1743. Cleanup of spills is the responsibility of the carrier.

c. The Commissioner of Health shall be advised of any accidental spills within 48 hours.

d. Underground storage of petroleum products or any other contaminating material is prohibited unless measures have been taken to ensure that leakage will not occur. Underground tanks at facilities where over 1,100 gallons of material are stored must be tested in accordance with NYSDEC bulk storage petroleum and chemi-

cal regulations (NYSDEC 1985). steel or painted steel tanks must be tested, in accordance with accepted testing procedures, initially when tank is 10 years old and every 5 years thereafter. State-of-the-art, corrosion-resistant underground tanks must be initially tested when they are 15 years old and every 5 years thereafter. Underground tanks that are not regulated by the bulk storage requirements must be tested when they are 10 years old every 5 years thereafter. All results of tank testing must be reported to the Village of Croton-on-Hudson.

xiii. Stockpiles

a. Storage of chloride salts is prohibited within a 500 ft linear tance of any water course or Zone 2 except in weatherproof buildings or watertight vessels.

b. Storage of coal is prohibited except in watertight buildings or on a watertight surface which prevents seepage and runoff.

Deicing Salt Application

a. Deicing salt use is restricted to the minimum amount needed for public safety in accordance with best management practices as developed by the Department of Transportation.

b. Calcium chloride shall be used instead of sodium chloride where possible to limit sodium input to area waters.

Cemeteries

a. No interment of a human body shall be made within a 250 ft linear distance of a water course or Zone 2.

xvi. Sediment Generation

a. Farm tillage practices shall be in conformance with best management practices as developed by the State Soil and Water Conservation Committee and implemented by the preparation and use of farm plans as required by Soil and Water Conservation District Law, Section 9, Subdivision 7a.

b. All farms shall have an operational farm plan pursuant to Item a in place.

c. Soil erosion and sediment production by stream and road bank erosion shall be evaluated by County Soil and Water Conservation District and appropriate remedial action taken where necessary.

d. All land-disturbing activity, cluding general construction, highway construction, access road construction, and maintenance, is pro-

hibited except where remedial measures have been put in place to minimize erosion and sediment production as specified in local ordinances and regulations.

xvii. Atmospheric Fallout

Appropriate monitoring of the constituents of precipitation shall be undertaken by the Village of Croton-on-Hudson Water Department and the Department of Health and Environmental Conservation and where data indicate appropriate action be taken.

xviii. Land Use Management

a. Where ground-water deterioration is likely to be caused by land development or use, the water supplier, municipal officials, and the Department of Health shall ensure that appropriate zoning and other controls are implemented to protect the ground water.

b. All lands or tributary streams draining to public water supply aquifers, shall be so identified on land use maps and in zoning regulations.