

Kayaderoseras Creek Watershed:
An Examination of
Land Use Patterns &
Point and Nonpoint Pollution

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Objective

This project uses a series of GIS maps to visually convey point discharges as well as land use types that may contribute to nonpoint effluent. Additionally, relevant State and Federal permitting and policy procedures are included in order to highlight regulatory aspects applicable to facilities and land uses that may affect the quality of the watershed.

Introduction

The Kayaderosseras Creek watershed is located in northwestern Saratoga County, New York and covers approximately 490 square kilometers (189 square miles). Several decades ago, land use within the Kayaderosseras watershed was primarily agricultural (Dweck et al. 2002). Since then there has been increased development pressure that has resulted in significant growth and a shift in land use in the watershed (Dweck et al. 2002). While the percentage of forested lands has increased, the percentage of land used for commercial and industrial applications has grown as well. All watersheds are fragile environments and the Kayaderosseras is no exception. The Land Trust of the Saratoga Region (LTSR) has been a steward of conservation in the County and has listed Kayaderosseras as a highly erodible stream (Dweck et al. 2002). The growing development in the watershed has subsequently increased the potential for point and nonpoint source pollution. Additionally, the Kayaderosseras Creek feeds into Saratoga Lake, a possible new drinking water source for Saratoga Springs.

Relevant Pollution Policy

Through the years there have been several policy changes that have been significant to the quality of the Kayaderosseras Creek watershed. With the advent of the Clean Water Act in 1972 (CWA), reducing point and non-point source pollution became

a national priority. To help meet these new clean water standards, the National Pollution Discharge Elimination System (NPDES) was developed. The major elements of this program are: public education and involvement, illicit discharge detection and correction as well as construction and post-construction runoff control (Dweck et al. 2002). In 1972 New York State enacted its own Environmental Conservation Law (ECL) to “conserve, improve and protect its natural resources and environment and control water, land and air pollution, in order to enhance the health, safety and welfare of the people of the state and their overall economic and social well being” (ECL 1972 Appendix B). Included in the ECL is the State Pollutant Discharge Elimination System (SPDES), the state equivalent to NPDES, which issues permits authorizing discharges into state waters. Depending on the permit, these facilities may be required to submit Discharge Monitoring Reports (DMR) to “demonstrate compliance with the SPDES permit conditions” (ECL 1972 Appendix B).

Another aspect of federal monitoring includes the Toxic Release Inventory (TRI). In 1986, through the Emergency Planning and Community Right to Know Act (EPCRA) Congress mandated that the TRI be made public and the TRI reports be submitted to and regulated by the Environmental Protection Agency (EPA). The EPCRA “specifically requires manufactures and other industry groups to report the chemicals manufactured or used in the identified facilities and the annual amount of these chemicals released and otherwise managed in on- and off-site waste management facilities” (NYSDEC 2001). There are currently (as of 2001) over 650 individually listed TRI chemicals and chemical categories. This information helps communities identify the hazards associated with the presence of toxic chemicals. This data also serves as a tool

for measuring chemical uses and releases as well as targeting new environmental initiatives.

Land use management is a crucial aspect to the health of any watershed. The two most highly populated areas in the Kayaderosseras watershed are the City of Saratoga Springs and the Village of Ballston Spa. These two municipalities have experienced the largest amount of development and are large contributors to the increase of impervious surfaces. Of the seven cities and towns in the watershed, all have recently completed or are in the process of establishing comprehensive land use management plans (Dweck et al. 2002). These policies all contain standards to provide some degree of protection for the natural resources in the watershed by regulating and monitoring regional development activities. The State Environmental Quality Review Act (SEQR), implemented in 1975, is crucial for recognizing the potential environmental impacts of proposed development. Its intention is to ensure environmental factors are taken into account during the early planning stages of actions by local, regional and state agencies (Dweck et al. 2002). If it is determined that an action may significantly affect the environment, public comment periods in addition to a series of impact statements must be completed to identify alternatives to minimize negative environmental consequences. These policies exist to maintain the well being of all public waterways including the Kayaderosseras.

Point Source Pollution

Regardless of the environmental controls that exist, point source pollution continues to be a significant concern within the watershed. In 1983, the EPA listed four point source pollution discharges into the watershed. Twenty-two years later, three of the four legally polluting facilities still exist with permits to discharge their wastewater into

the Kayaderosseras. Presently, there exist at least seven facilities that have state water discharge permits allowing them to add to the effluent levels in the Kayaderosseras and its tributaries. Though these discharges are sanctioned, they contribute to the overall degradation of the watershed. Currently, the EPA registers eight facilities that handle, use or transport at least one toxic chemical in the watershed since monitoring began.

Nonpoint Pollution

Nonpoint pollution is defined by the New York State ECL as “any source of water pollution or pollutants which is not a discrete conveyance or point source” (ECL 1972 Appendix B). Possible nonpoint source pollution exists on a wide scale primarily in the form of rainwater runoff from many types of land use including: low and high intensity residential, commercial/industrial/transportation, quarries/strip mines/gravel pits, pasture/hay, row crops and urban/recreational grasses (see Appendix A for definitions). Nonpoint pollution is a concern because “there is a growing opinion that, despite the billions of dollars spent on point source control measures, further point source control cannot achieve major additional benefits in water quality without significant control over nonpoint sources” (FAO 1996). Locally, the Kayaderosseras Creek watershed is of interest because of the presence of many land use types that have the potential to contribute to nonpoint pollution.

The main branch of the Kayaderosseras is fed by five major tributaries in addition to fifteen sub-tributaries. In order to more accurately quantify the problem, nonpoint source pollution, in the form of runoff into the Kayaderosseras Creek and its tributaries, needs to be closely scrutinized. Nutrients may originate from residential lawns and gardens, recreational grasses, and agricultural land, entering the Kayaderosseras or a

tributary in the form of runoff. Determining the existing areas of possible nonpoint sources of pollution in the Kayaderosseras Creek watershed will help provide a baseline for future studies.

Methods

Possible Point Sources of Pollution

We collected possible point sources of pollution from records obtained from the Saratoga County Environmental Management Council (SCEMC) and from the EPA Envirofacts Data Warehouse website. The SCEMC provided us with two comprehensive reports on the Saratoga Lake watershed which includes the Kayaderosseras watershed. The first report was compiled in 1983 under pretense from the EPA as part of the Clean Water Act's Clean Lakes Program (Hardt et. Al 1983). This report was the first comprehensive study of the watershed that included socio-economic, biological, chemical and policy information. The 1983 report established baseline data on land use patterns that are useful for comparison with current trends. The second report was compiled in 2002 under the EPA's Wetlands Protection State Development Grant Program. This study included updates on the 1983 report and new parameters for assessing the watershed's health.

The EPA provides the public with an online database for searching the TRI for every zip code, city and county (EPA Envirofacts TRI 2005). This list catalogues facilities that are permitted to handle toxic chemicals. The EPA also lists facilities that have NPDES permits to discharge wastewater into rivers in Saratoga County. This directory is also available online under the EPA's Permit Compliance System Database (PCS) which lists NPDES regulated facilities (EPA Envirofacts PCS 2005). From the

TRI and NPDES listings we obtained several possible point source pollution sites in the Kayaderosseras watershed.

The addresses of registered TRI and NPDES facilities were mapped using latitude and longitude coordinates provided by the EPA website and plotted on a Geographic Information Systems map (GIS) using the mapping software ArcGIS Version 9 (EPA Envirofacts 2005). These sites were then overlaid on a map created with National Land Cover Data (NLCD) generated by the U.S. Geological Survey (USGS) in 1992. This map data was obtained from the Cornell University Geospatial Information Repository (CUGIR 1998). The GIS maps demonstrate the locations of the facilities relative to land use patterns in the watershed. One map demonstrates the locations of the TRI facilities and the other shows the facilities holding NPDES permits.

The area in square meters of each land use category present in the Kayaderosseras watershed was obtained from the attribute table of the GIS land use map. Microsoft Excel was then used to calculate each category's area as a percent of the total watershed in square meters. Next each of the thirteen land use category's areas were divided by the total area of the watershed and multiplied by 100 to obtain a percent of total (Figure 2).

Possible Nonpoint Sources of Pollution

We collected possible nonpoint sources of pollution by examining current land use patterns in the watershed. Data from the NLCD contains six land use categories in the Kayaderosseras watershed (thirteen sub-categories) including: water, developed, barren, vegetated/natural forested upland, herbaceous planted/cultivated, and wetlands (Appendix A). Seven of these sub-categories were determined to qualify as possible nonpoint sources of pollution including: low and high intensity residential,

commercial/industrial/transportation, quarries/strip mines/gravel pits, pasture/hay, row crops and urban/recreational grasses. A map was created to show the percent of total land area that qualifies as possibly contributing to nonpoint pollution in addition to roads that are also a source of runoff. The area in square meters of each land use category qualifying as a possible source of nonpoint pollution was obtained from an attribute table of the GIS land use map. Microsoft Excel was then used to calculate each category's area as a percent of the total watershed in square meters. The next step was to combine the seven land use categories to produce a sum of the area qualifying as possible nonpoint pollution. This sum was then converted to square kilometers in dividing by 1000. The total percent of possible nonpoint pollution area out of the complete watershed is visually represented in a pie graph (Figure 6).

Results

Figure 1

Figure 1 displays 1992 land use patterns in the Kayaderosseras watershed along with the Kayaderosseras Creek and its tributaries.

Figure 2

Figure 2, shown below, represents the thirteen land use categories and their respective percent of total land area in the watershed.

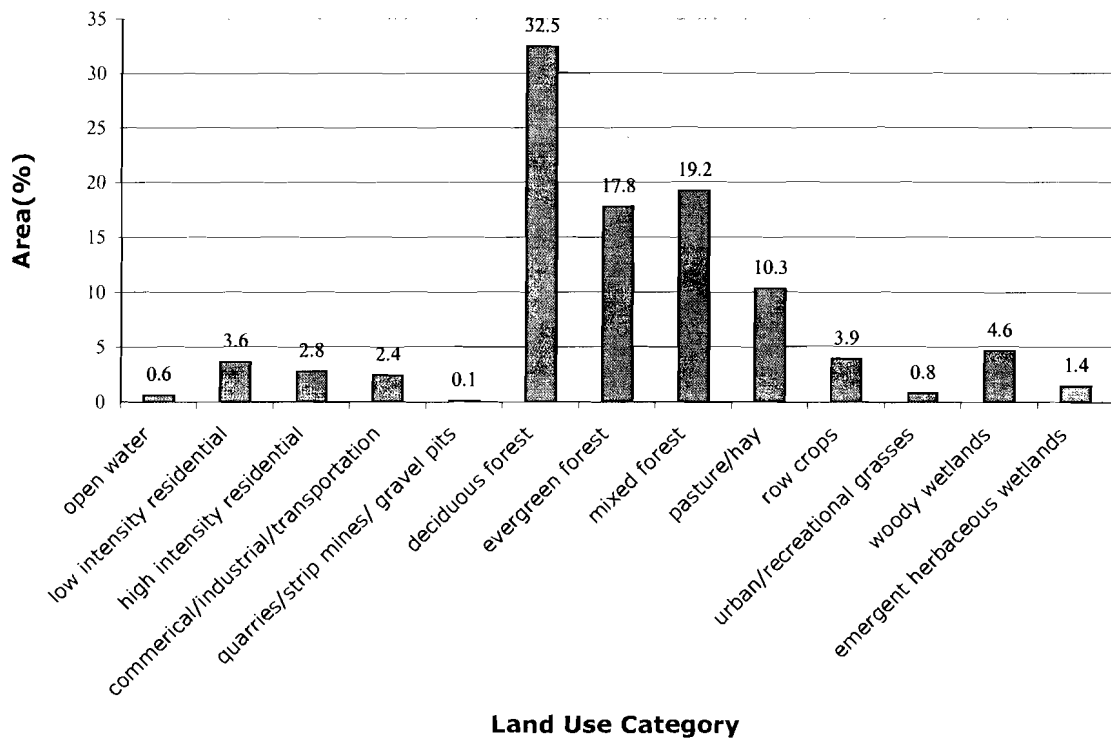


Figure 3

Figure 3 displays the Kayaderosseras Creek and 1992 land use within its watershed. There are eight EPA registered TRI facilities located in the watershed. Cottrell Paper Co., USDOE Knolls Atomic Power Laboratory, Espey Manufacturing & Electronics Corp. and Congress Gas & Oil are all located in the

Commercial/Industrial/Transportation land use type. Ball Metal Beverage Container Corp., Stewarts Shop and Graphic Packaging Corp. are all located in the high intensity residential land use type. The Quad Graphics facility is located in an area designated as row crops and surrounded by all three forest land use types.

Figure 4

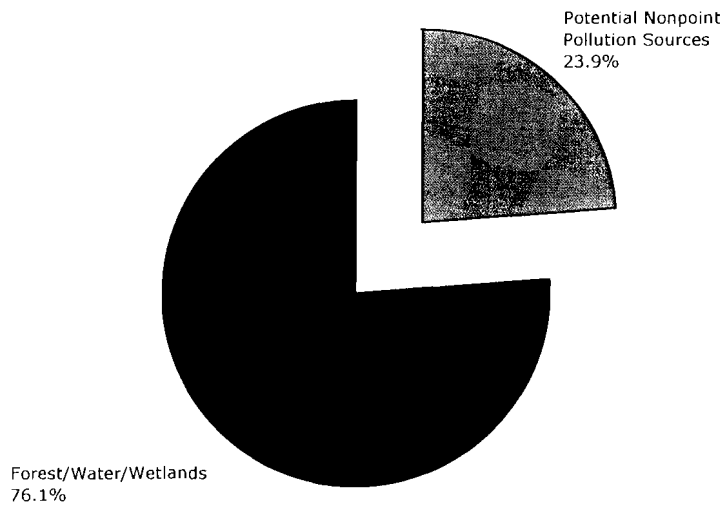
Figure 4 displays 1992 watershed land use in addition to seven facilities that possess NPDES permits for discharging wastewater in the Kayaderosseras Creek Watershed. Cottrell Paper Co., USDOE Knolls Atomic Power Laboratory, Congress Gas & Oil/Saratoga Chrysler and the Saratoga Race Track (267 Union Ave.) are located in the Commercial/Industrial/Transportation land use type. Congress Gas & Oil and Saratoga Chrysler are both located at 617 Maple Avenue in Saratoga Springs and possess separate NPDES permits. Ball Metal Beverage Container Corp. is located in the high intensity residential land use type. The Forest Hills Mobile Home Park is located in the deciduous forest land use type in close proximity to woody and emergent herbaceous wetland types.

Figure 5

Figure 5 displays combined land use types that qualify as potential sources of nonpoint pollution. These include: low and high intensity residential, commercial/industrial/transportation, quarries/strip mines/gravel pits, pasture/hay, row crops, urban and recreational grasses (Appendix A). Additionally, all primary and secondary roadways are shown to emphasize their potential contribution to nonpoint runoff in the watershed.

Figure 6

Figure 6 shows potential nonpoint pollution sources as 23.9 percent of the total land area while forest/water/wetlands represent the remaining 76.1 percent.



Discussion

Figure 1

The Kayaderosseras Creek watershed encompasses thirteen land use types catalogued by the USGS (Appendix A). Higher densities of residential and commercial land uses are located in the cities of Saratoga Springs and Ballston Spa. This region includes the interstate 87 corridor and county route 50 where low and high residential as well as commercial/industrial/transportation are the primary land uses. The north, center and slight west of center areas are mainly comprised of all three types of forests, with intermittent pasture/hay and row crops dispersed throughout. The far west, southwest, and south central areas showcase the greatest concentrations of pasture/hay. Row crops

are scattered throughout the watershed in small patches. Both types of wetlands are found in close proximity to both Lake Lonely, which is inside the watershed, and Saratoga Lake, which is located just outside the watershed's southeastern boundary. Urban/recreational grasses exist, but comprise a minor component of the watershed in relation to total land area.

Figure 2

The most prominent land use category in the Kayaderosseras watershed is forested upland comprising 69.5 percent. The next highest percent of land use is the combined types of herbaceous planted/cultivated, at 15 percent. The third group is the combined developed types at 8.8 percent. Wetlands make up 6 percent, while barren and open water make up 0.1 percent and 0.6 percent respectively.

Figure 3

The eight TRI facilities in the watershed are all located in the central, northeastern and east central regions. Six of the eight facilities, excluding Cottrell Paper Co. and the USDOE plant, are found within or in close proximity to the cities of Saratoga Springs and Ballston Spa. These sites correlate with the most developed areas of the watershed, demonstrating an association between businesses and industry in relation to urban centers. These data suggest that the potential for facilities handling hazardous materials increases proportionally with development.

Cottrell Paper Co. is located in the Rock City Falls district of Milton. Both deciduous and evergreen forests surround Cottrell's facility, which is located directly alongside a tributary of the Kayaderosseras. Cottrell's proximity to the tributary increases the potential impact of its activities with toxic chemicals on the creek. The

USDOE facility is situated on grounds of the Kenneth A. Kesselring Reservation, in the West Milton district. This reservation is characterized by a combination of quarries/strip mines/gravel pits and commercial/industrial/transportation bordered on all sides by all three forest types. These two facilities are unique because they exist outside of the central developed areas of the watershed.

All eight of these facilities qualify as potential point sources of pollution since they handle various toxic chemicals. Though each facility is given different standards to comply with by the EPA, depending on the chemicals they employ, all have the capability to release toxins into air, land and/or water.

Figure 4

There are currently seven facilities that possess NPDES permits to discharge wastewater into the Kayaderosseras Creek watershed. Four of these are contained in the city of Saratoga Springs, the other three are in Rock City Falls, Ballston Spa, and West Milton. Though these are legal discharges designed to comply with the Clean Water Act, they may still compromise the Kayaderosseras water quality. These point sources of wastewater discharge remain of interest because of their ability to influence the watershed and unintentionally exceed the legal permit limitations on discharge type, amount, and frequency.

Figure 5

The areas highlighted demonstrate the combined proportion of land that may contribute to nonpoint sources of pollution in the watershed. Developed land, which consists of 30% or greater constructed materials, increases the likelihood of rainwater runoff containing chemicals harmful to the water because of the abundance of impervious

surfaces. This runoff can contain fertilizers, greases and oils, fecal matter and pathogens, organic contaminants, nutrients, heavy metals, pesticides, sediment and salts (FAO 1996). Areas of extractive mining such as quarries/strip mines/gravel pits contain little or no vegetation to combat erosion. Specifically, runoff from these activities can contain sediment, acids, metals, oils, organic contaminants and salts (FAO 1996). The heightened potential for erosion may result in increased sedimentation of the Kayaderosseras and a subsequent change in water quality. Planted/cultivated lands including pasture/hay, row crops and urban/recreational grasses can add nutrients, sediment, pesticides, heavy metals and pathogens to the watershed (FAO 1996).

The nature of nonpoint pollution makes it difficult to both create and enforce regulations to combat this issue. However, Article 17 Title 14 Section 17-1403 of the ECL stipulates “best management practices” be employed to reduce or eliminate the introduction of nonpoint pollutants into receiving waters whenever possible (ECL 1972 Appendix B). This statute aims to prevent or reduce the impact of nonpoint pollution to a level compatible with water quality standards established in the ECL to comply with the CWA.

Figure 6

Figure 6 represents land areas that qualify as possible sources of nonpoint pollution. The nonpoint land area represents almost a quarter (23.9%) of the total land area of the watershed. The concentrated areas of nonpoint land use are found in the southeastern and eastern regions of the watershed. These areas are indicative of the high amount of development in the Saratoga Springs and Ballston Spa regions. Less concentrated areas of nonpoint land use are scattered throughout the less developed

regions of the watershed. Since the nonpoint land area represents almost a quarter of the total watershed, it is important to implement the best management practices designated in Title 14 of the ECL (ECL 1972 Appendix B).

Conclusion

Recognizing that land use patterns are evolving is the first step toward designing policies that ensure the sustainability of the watershed. The crucial aspect of this is the continued monitoring of development patterns and pollution sources. This responsibility rests upon a lasting partnership between citizens, watershed communities and local, state and federal agencies.

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Appendix A

National Land Cover Data System (NLCD) Provided by
Cornell University Geospatial Information Repository (CUGIR)
USGS Land Cover Class Definitions

1) *Water*

A) Open Water – areas of open water, generally with less than 25 percent or greater cover of water.

2) ***Developed*** – areas characterized by high percentage (approximately 30% or greater) of constructed materials (e.g. asphalt, concrete, buildings, etc).

A) Low Intensity Residential – Includes areas with a mixture of constructed materials (30-80%) and vegetation (20-70%). These areas most commonly include single-family housing units. Population densities will be lower than in high intensity residential areas.

B) High Intensity Residential – Includes heavily built up urban centers where people reside in high numbers. Examples include apartment complexes and row houses. Vegetation is less than 20% and constructed materials account for 80-100% of cover.

C) Commercial/Industrial/Transportation – Includes infrastructure (e.g. roads, railroads, etc.) and all highways and all developed areas not classified as high intensity residential.

3) ***Barren*** – Areas characterized by bare rock, gravel, silt, sand, clay, or other earthen material, with little or no “green” vegetation present regardless of its inherent ability to support life. If vegetation is present, it is more widely spaced and scrubby than that in the “green” vegetated categories; lichen cover may be extensive.

A) Quarries/Strip Mines/Gravel Pits – Areas of extractive mining activities with significant surface expression.

4) ***Forested Upland*** – Characterized by tree cover (natural or semi-natural woody vegetation, generally greater than six meters tall); tree canopy accounts for 25-100% of cover.

A) Deciduous Forest – Areas dominated by trees where 75% or more of the tree species shed foliage simultaneously in response to seasonal change.

B) Evergreen Forest – Areas characterized by trees where 75% or more of the tree species maintain their leaves all year. Canopy is never without green foliage.

C) Mixed Forest – Areas dominated by trees where neither deciduous nor evergreen species represent more than 75% of the cover present.

5) ***Herbaceous Planted/Cultivated*** – Areas characterized by herbaceous vegetation that has been planted or intensively managed for the production of food, fiber or feed; or is maintained in developed settings for specific purposes. Herbaceous vegetation accounts for 75-100% of the cover.

A) Pasture/Hay – Areas of grasses, legumes or grass-legume mixtures planted for livestock grazing or the production of seed or hay crops.

B) Row Crops – Areas used for the production of crops, such as corn, soy beans and vegetables.

- C) Urban/Recreational Grasses – Vegetation (primarily grasses) planted in developed settings for recreation, erosion control, or aesthetic purposes. Examples include parks, lawns, golf courses, airport grasses and industrial site grasses.
- 6) Wetlands** – Areas where the soil or substrate is periodically saturated with or covered with water.
- A) Woody Wetlands – Areas where forest or shrubland vegetation accounts for 25-100% of the cover and the soil or substrate is periodically saturated with or covered with water.
 - B) Emergent Herbaceous Wetlands – Areas where perennial herbaceous vegetation accounts for 75-100% of the cover and the soil or substrate is periodically saturated with or covered with water.

Appendix B

ECL ARTICLE 1 TITLE 1 DECLARATION OF POLICY

Section 1-0101. Declaration of policy.

S 1-0101. Declaration of policy.

1. The quality of our environment is fundamental to our concern for the quality of life. It is hereby declared to be the policy of the State of New York to conserve, improve and protect its natural resources and environment and control water, land and air pollution, in order to enhance the health, safety and welfare of the people of the state and their overall economic and social well being.

2. It shall further be the policy of the state to improve and coordinate the environmental plans, functions, powers and programs of the state, in cooperation with the federal government, regions, local governments, other public and private organizations and the concerned individual, and to develop and manage the basic resources of water, land, and air to the end that the state may fulfill its responsibility as trustee of the environment for the present and future generations.

3. It shall further be the policy of the state to foster, promote, create and maintain conditions under which man and nature can thrive in harmony with each other, and achieve social, economic and technological progress for present and future generations by:

- a. Assuring surroundings which are healthful and aesthetically pleasing;
- b. Guaranteeing that the widest range of beneficial uses of the environment is attained without risk to health or safety, unnecessary degradation or other undesirable or unintended consequences;
- c. Promoting patterns of development and technology which minimize adverse impact on the environment;
- d. Preserving the unique qualities of special resources such as the Adirondack and Catskill forest preserves;
- e. Providing that care is taken for the air, water and other resources that are shared with the other states of the United States and with Canada in the manner of a good neighbor.

ECL ARTICLE 17 TITLE 1 GENERAL PROVISIONS AND PUBLIC POLICY

Section 17-0101. Declaration of policy.

17-0103. Statement of purpose.

17-0105. Definitions applicable to portions of this article.

S 17-0101. Declaration of policy.

It is declared to be the public policy of the state of New York to maintain reasonable standards of purity of the waters of the state consistent with public health and public enjoyment thereof, the propagation and protection of fish and wild life, including birds, mammals and other terrestrial and aquatic life, and the industrial development of the state, and to that end require the use of all known available and reasonable methods to prevent and control the pollution of the waters of the state of New York.

S 17-0103. Statement of purpose.

It is the purpose of this article to safeguard the waters of the state from pollution by preventing any new pollution and abating pollution existing when the predecessor of this chapter was enacted, under a program consistent with the declaration of policy stated in section 17-0101.

S 17-0105. Definitions applicable to portions of this article.

When used in titles 1 to 11, inclusive, and titles 14 and 19 of this article:

1. "Person" or "persons" means any individual, public or private corporation, political subdivision, government agency, municipality, industry, co-partnership, association, firm, trust, estate or any other legal entity whatsoever.

2. "Waters" or "waters of the state" shall be construed to include lakes, bays, sounds, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic ocean within the territorial limits of the state of New York and all other bodies of surface or underground water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters which do not combine or effect a junction with natural surface or underground waters), which are wholly or partially within or bordering the state or within its jurisdiction.

3. "Marine district" shall include the waters of the Atlantic ocean within three nautical miles from the coast line and all other tidal waters within the state, except the Hudson river northerly of the south end of Manhattan Island.

4. "Sewage" means the water-carried human or animal wastes from residences, buildings, industrial establishments or other places, together with such ground water infiltration and surface water as may be present. The admixture with sewage as above defined of industrial wastes or other wastes as hereafter defined, shall also be considered "sewage" within the meaning of this article.

5. "Industrial waste" means any liquid, gaseous, solid or waste substance or a combination thereof resulting from any process of industry, manufacturing, trade, or business or from the development or recovery of any natural resources, which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards adopted as provided herein.

6. "Other wastes" means garbage, refuse, decayed wood, sawdust, shavings, bark, sand, lime, cinders, ashes, offal, oil, tar, dyestuffs, acids, chemicals, ballast and all other discarded matter not sewage or

industrial waste which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards adopted as provided herein.

7. "Standard" or "Standards" means such measure of purity or quality for any waters in relation to their reasonable and necessary use as may be established by the department pursuant to section 17-0301.

8. "Sewer system" or "sewerage system" means pipe lines or conduits, pumping stations, and force mains, and all other constructions, devices, and appliances appurtenant thereto, used for conducting sewage, industrial waste or other wastes to a point of ultimate disposal.

9. "Treatment works" means any plant, disposal field, lagoon, pumping station, constructed drainage ditch or surface water intercepting ditch, incinerator, area devoted to sanitary land fills, or other works not specifically mentioned herein, installed for the purpose of treating, neutralizing, stabilizing or disposing of sewage, industrial waste or other wastes.

10. "Disposal system" means a system for disposing of sewage, industrial waste or other wastes, and including sewer systems and treatment works.

11. "Outlet" means the terminus of a sewer system, or the point of emergence of any water-borne sewage, industrial waste or other wastes or the effluent therefrom, into the waters of the state.

12. "Shellfish" includes oysters, scallops, clams, mussels and other aquatic mollusks, and lobsters, shrimp, crawfish, crabs and other aquatic crustaceans.

13. "State Pollutant Discharge Elimination System" or "SPDES" means the system established pursuant hereto for issuance of permits authorizing discharges to the waters of the state.

14. "National Pollutant Discharge Elimination System" or "NPDES" means the national system for the issuance of permits under the Federal Water Pollution Control Act.

15. "Effluent standard and/or limitation" means any restriction on quantities, quality, rates and concentrations of chemical, physical, biological, and other constituents of effluents which are discharged into or allowed to run from an outlet or point source into waters of the state promulgated by the federal government.

16. "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, concentrated animal feeding operation, vessel or other floating craft, or landfill leachate collection system from which pollutants are or may be discharged. This term does not include agricultural stormwater discharges and return flows from irrigated agriculture.

17. "Pollutant" means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, and agricultural waste discharged into water; and ballast which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards adopted as provided herein.

18. "Schedule of compliance" means a schedule of remedial measures

including an enforceable sequence of actions or operations leading to compliance with an effluent limitation, other limitation, prohibition, or standard.

19. "Toxic pollutant" means those pollutants, or combination of pollutants, including disease-causing agents which after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly through food chains, will, on the basis of information available to the department, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions, including malfunctions in reproduction, or physical deformations, in such organisms or their offspring.

20. "New source" means any source, the construction of which is commenced after the publication of a standard or performance applicable to such source under the provisions of the Act, provided such standard is thereafter promulgated and adopted.

21. "Standard of performance" means a standard for the control of the discharge of pollutants which reflects the greatest degree of effluent reduction which the federal government determines to be achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants.

22. "Toxic and pretreatment effluent standard" means standards adopted by the federal government pursuant to section 307 of the Act.

23. "Tanker" means any watercraft of more than three hundred gross tons and having a fully loaded draft of seven feet or more used to carry any liquid cargo, including petroleum, oil or water.

ECL
ARTICLE 17
TITLE 7
PERMITS AND CERTIFICATES

Section 17-0701. Permit for outlet, point source and for disposal system required.

17-0703. Issuance, denial, and revocation of permits.

17-0705. Certificates of compliance for purposes of the Real Property Tax Law.

17-0707. Certificates of compliance for purposes of the Tax Law.

S 17-0701. Permit for outlet, point source and for disposal system required.

1. It shall be unlawful for any person, until a written SPDES permit therefor has been granted by the commissioner, or by his designated representative, and unless such permit remains in full force and effect, to:

a. Make or cause to make or use any outlet or point source for the discharge of sewage, industrial waste or other wastes or the effluent therefrom, into the waters of this state, or

b. Construct or operate and use a disposal system for the discharge of sewage, industrial waste, or other wastes or the effluent therefrom,

into the waters of the state, or make any change in, addition to or an extension of any existing disposal system or part thereof which would materially alter the volume of, or the method or effect of treating or disposing of the sewage, industrial waste or other wastes, or

c. Increase or alter the content of the wastes discharged through an outlet or point source into the waters of the state by a change in volume or physical, chemical or biological characteristics.

2. Notwithstanding any other provision of this article, for the purposes of this title, the following definitions shall be applicable:

a. "Industrial waste" means any liquid, gaseous, solid or waste substance or a combination thereof resulting from any process of industry, manufacturing, trade, or business or from the development or recovery of any natural resources, which may cause or might reasonably be expected to cause pollution of the waters of the state.

b. "Other wastes" means garbage, refuse, decayed wood, sawdust, shavings, bark, sand, lime, cinders, ashes, offal, oil, tar, dye-stuffs, acids, chemicals, ballast and all other discarded matter not sewage or industrial waste which may cause or might reasonably be expected to cause pollution of the waters of the state.

3. No permit prescribed by subdivision 1 of this section shall be issued by the commissioner or by his designated representative until the requirements of title 8 of this article and the regulations promulgated thereunder have been satisfied.

4. a. A person, corporation, public authority or public benefit corporation hereafter intending to construct a nuclear steam-electric generating facility shall file an environmental feasibility report, in a form prescribed by the commissioner, with the department concurrently with the filing of the preliminary safety analysis report required to be filed with the United States atomic energy commission for a nuclear power plant.

b. No person, corporation, public authority, or public benefit corporation shall construct or operate any new steam-electric generating facility or increase the capacity of any existing steam-electric generating facility without a permit issued in accordance with the provisions of this subdivision allowing thermal discharge from such facility to the waters of the state. A public hearing may be conducted by the department prior to the issuance of any such permit.

5. A SPDES permit shall be issued to the applicant upon such conditions as the commissioner may direct:

a. if the commissioner finds on the basis of the submitted plans or application that the discharge from the outlet or point source or modified disposal system will not be in contravention of the standards, criteria, limitations, rules and regulations adopted or applied by the department; or

b. in case no classification has been made of the receiving waters at said outlet or point source or into which such proposed discharge is to be made, if the commissioner finds that such proposed discharge will not be injurious to public health and public enjoyment thereof, the propagation and protection of fish and wild life, the industrial development of the state and will not contravene standards, criteria, limitations, rules and regulations adopted or applied pursuant to title

8 hereof.

6. The permit prescribed by subdivision 1 of this section and title 8 hereof shall not be required for the construction and use of a new or modified disposal system, point source or outlet when such disposal system, point source or outlet is designed to discharge or discharges sewage effluent without the admixture of industrial wastes or other wastes to the ground waters of the state when such discharge consists of a flow of less than one thousand gallons per day. Nothing contained in this subdivision shall be construed to permit the making or use of an outlet or point source discharging an effluent to the waters of the state in contravention of any standards adopted by the former Water Pollution Control Board or the former Water Resources Commission and continued by this article or adopted by the department or standards, criteria, limitations, rules or regulations promulgated or applied pursuant to title 8 hereof, or discharging an effluent in such a manner as to expose sewage on the ground surface, impair the quality of waters of the state used for drinking purposes or otherwise create a nuisance or menace to health. A county, city, town or village may adopt and enforce additional local laws, ordinances and regulations or enforce existing local laws, ordinances and regulations relating to discharges of sewage herein referred to, including local laws, ordinances and regulations requiring a permit for disposal systems, point sources or outlets for such discharges, provided that such local laws, ordinances and regulations are not inconsistent with the provisions of this chapter or the sanitary code.

7. The commissioner may delegate to qualified personnel of county and city health departments his duties of review and approval of plans and issuance of permits required in subdivisions 1, 3 and 4 of this section, subject to such conditions as he may establish.

9. In the case of a major steam electric generating facility, as defined in section one hundred forty of the public service law, for the construction or operation of which a certificate is required under article eight of such law, an applicant shall apply for and obtain such certificate in lieu of filing plans and reports and obtaining a permit under this section. Any reference in this article to a permit under this section shall, in the case of such major steam electric generating facility, be deemed for all purposes to refer to such certificate, provided that nothing herein shall limit the authority of the departments of health and environmental conservation to monitor the environmental and health impacts resulting from the operation of such major steam electric generating facility and to enforce applicable provisions of the public health and environmental conservation laws and the terms and conditions of the certificate governing the environmental and health impacts resulting from such operation.

S 17-0703. Issuance, denial, and revocation of permits.

1. The permit provided in section 17-0701 and title 8 hereof shall be issued by the commissioner or by his designated representative, pursuant to regulations of the department adopted in accordance with subdivision 3 of section 17-0303 and title 8 hereof.

2. Public hearings, on due notice, shall be conducted by the

commissioner or by his designated representative in connection with the issuance of any order or determination denying, revoking, continuing or modifying a permit as provided by section 17-0701 paragraph f of subdivision 4 of section 17-0303 and title 8 hereof, unless the applicant or permittee waives said hearing in writing and no request for a public hearing has been received from any interested party.

S 17-0705. Certificates of compliance for purposes of the Real Property Tax Law.

1. For the purposes of section 477 of the Real Property Tax Law, the commissioner or his designated representative is hereby authorized to issue certificates of compliance concerning industrial waste treatment facilities, and industrial waste treatment controlled process facilities as defined in such law. No such certificate shall be issued unless the facility to which it is applicable is in compliance with applicable provisions of titles 1 to 11, inclusive, and title 19 of article 17, article 19, and title 1 of article 27 of this chapter; of the Public Health Law; of the state sanitary code and of regulations, permits or orders issued pursuant thereto.

2. In the case of facilities which have not been completed prior to the close of a taxable status date with respect to which an exemption may be claimed under the Real Property Tax Law, a temporary certificate of compliance may be issued if the commissioner or his representative is satisfied, on the basis of the construction which has taken place, that such facilities, when completed, will be in compliance with the provisions of titles 1 to 11, inclusive, and title 19 of article 17, article 19, and title 1 of article 27 of this chapter; of the Public Health Law; of the state sanitary code, and regulations, permits or orders issued pursuant thereto. Such a temporary certificate shall apply only to taxes levied as of the taxable status date with respect to which such a certificate is issued.

S 17-0707. Certificates of compliance for purposes of the Tax Law.

1. For the purposes of sections 208, 210, 606 and 612 of the Tax Law, the commissioner or his designated representative is hereby authorized to issue certificates of compliance concerning industrial waste treatment facilities and industrial waste treatment controlled process facilities as defined in such law. No such certificate shall be issued unless the facility to which it is applicable is in compliance with applicable provisions of titles 1 to 11, inclusive, and title 19 of article 17, article 19, and title 1 of article 27 of this chapter; of the Public Health Law; of the state sanitary code and of regulations, permits or orders issued pursuant thereto.

2. In the case of facilities which have not been completed prior to the close of a taxable year for which a deduction may be claimed under the Tax Law, a temporary certificate of compliance may be issued if the commissioner or his representative is satisfied, on the basis of the construction which has taken place, that such facilities will be in compliance with the provisions of titles 1 to 11, inclusive, and title 19 of article 17, article 19, and title one of article 27 of this chapter; of the Public Health Law of the state sanitary code, and

regulations, permits or orders issued pursuant thereto. Such a temporary certificate shall apply only to expenditures made in the taxable year with respect to which such a certificate is issued.

ECL
ARTICLE 17
TITLE 8
STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM

Section 17-0801. Purpose.

- 17-0803. SPDES permits; application.
- 17-0804. Rules and regulations.
- 17-0805. Notice and public participation; access to information.
- 17-0807. Prohibited discharges.
- 17-0808. Municipal and industrial stormwater discharges.
- 17-0809. Effluent limitations.
- 17-0811. Application of effluent standards and limitations; water quality standards; other requirements.
- 17-0813. Compliance schedules.
- 17-0815. SPDES permits; additional terms and conditions.
- 17-0815-a. Discharge point signs.
- 17-0816. Coordination with AEM program.
- 17-0817. SPDES permits; duration and reissuance.
- 17-0819. Applications, reports, notices; provisions to insure verity.
- 17-0821. Fees.
- 17-0823. Power plant siting.
- 17-0825. Discharges of industrial waste to publicly owned treatment works.
- 17-0826. Notification of discharges affecting groundwaters.
- 17-0827. Conflicts of interest.
- 17-0828. Discharges affecting groundwaters.
- 17-0829. Inspection and entry.
- 17-0831. Environmental monitors for tankers.

S 17-0801. Purpose.

To create a state pollutant discharge elimination system (SPDES) to insure that the State of New York shall possess adequate authority to issue permits regulating the discharge of pollutants from new or existing outlets or point sources into the waters of the state, upon condition that such discharges will conform to and meet all applicable requirements of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251, et seq.) hereinafter referred to as the "Act", and rules, regulations, guidelines, criteria, standards and limitations adopted pursuant thereto relating to effluent limitations, water quality related effluent limitations, new source performance standards, toxic and pretreatment effluent limitations, ocean discharge criteria, and monitoring, and to participate in the national pollutant discharge elimination system (NPDES) created by the Act.

S 17-0803. SPDES permits; application.

Except as provided by subdivision five of section 17-0701 of this article, it shall be unlawful to discharge pollutants to the waters of the state from any outlet or point source without a SPDES permit issued pursuant hereto or in a manner other than as prescribed by such permit. The department shall, by rule and regulation, require that every applicant for a permit to discharge pollutants into the waters of the state shall file such information at such times and in such form as the department may reasonably require to execute the provisions of this article. Rules and regulations adopted hereunder may provide that in lieu of issuance of such permit the department may accept as compliance herewith a permit duly issued by the federal government or an agency thereof pursuant to the provisions of the Act.

S 17-0804. Rules and regulations.

The rules and regulations adopted by the department to implement this title and the provisions of article 70 of this chapter and rules and regulations thereunder shall govern permit applications, renewals, modifications, suspensions and revocations under this title.

S 17-0805. Notice and public participation; access to information.

l. a. Public notice of a complete application for a SPDES permit, including: (i) all renewals of SPDES permits issued in lieu of NPDES permits; (ii) other permit renewals, except renewals of permits for projects defined as minor in article 70 of this chapter; and (iii) modifications involving substantive changes in permit requirements or authorized activities, except modification of permits for projects defined as minor under article 70 of this chapter, shall be circulated in a manner designed to inform interested and potentially interested persons and any other state, the waters of which may be affected, of such application. Such notice shall include, where appropriate, the following: (i) the applicant's name and address; (ii) a brief description of the project or proposed project and its location; (iii) a list of all department permits directly related to the project for which application has been made; (iv) the name and classification of the water body to which discharges are being made or are to be made; (v) the volume and type of the discharge authorized or to be authorized; (vi) the permit's priority ranking score; (vii) the name and telephone number of the department and the lead agency contact persons for the project; (viii) a statement that copies of the permit application, the existing or draft permit, the fact sheet, the priority ranking fact sheet, worksheet and a description of the SPDES permit priority ranking system are available upon request; and (ix) a statement that written comments or requests for a public hearing on the permit application, draft environmental impact statement or the permit's priority ranking score may be filed by a time and at a place specified.

b. The department shall provide a period of not less than thirty days following the date of the public notice pursuant to paragraph a of this subdivision during which time interested persons may submit their written views with respect to the application and the priority ranking of the permit. The period for comment may be extended at the discretion

of the department. All written comments submitted during such thirty day or extended period shall be retained by the department and considered in the formulation of the final determination on the application and the priority ranking of the permit. The department may, in its discretion, provide an opportunity for the applicant or any interested agency, person or group of persons to request or petition for a public hearing with respect to such application or the priority ranking of the permit. Such request or petition shall be made during the public notice and comment period. The department shall promulgate rules and regulations with respect to notice, procedures and conduct of public hearings in accordance with due process of law for administrative proceedings and the provisions of the Act.

2. Notwithstanding any other provision of law, any effluent data, any SPDES permit, permit application including a permit renewal application, priority ranking fact sheet or request for permit modification, suspension or revocation shall be available to the public for inspection and copying. This includes information submitted on the forms themselves and any attachments used to supply information required by the forms.

3. Except insofar as trade secrets would be disclosed, the following information shall be available to the public for inspection and copying;

(a) any public comments, testimony or other documentation concerning a permit application, including a permit renewal application, priority ranking fact sheet or request for permit modification, suspension or revocation; and

(b) any information obtained pursuant to any monitoring, records, reporting or sampling requirements or as a result of sampling or other investigatory activities of the department.

4. The department shall identify and hold confidential any information, except effluent data, SPDES permits, permit applications, including permit renewal applications priority ranking fact sheets or requests for permit modification, suspension or revocation, including information submitted on the forms themselves and any attachments used to supply information required by the forms, shown by any person to be information which, if made public, would divulge methods or processes entitled to protection as trade secrets of such person.

S 17-0807. Prohibited discharges.

The following discharges into the waters of the state are hereby prohibited.

1. the discharge of any radiological, chemical or biological warfare agent or high-level radioactive waste, as such terms are defined by the Act or pursuant thereto.

2. any discharge which would substantially impair anchorage and navigation, as determined by the Secretary of the Army.

3. any discharge to which the federal government has objected pursuant to any right to object provided by the Act.

4. any discharge not permitted by the provisions of this article, rules and regulations adopted or applicable pursuant hereto, the Act, or provisions of a permit issued hereunder.

S 17-0808. Municipal and industrial stormwater discharges.

1. Prior to October first, nineteen hundred ninety-two, no permit shall be required for discharges composed entirely of stormwater, except as provided in subdivision two of this section.

2. Subdivision one of this section shall not apply with respect to the following stormwater discharges:

a. A discharge with respect to which a permit has been issued under this title prior to the effective date of this section;

b. A discharge associated with industrial activities directly related to manufacturing, processing, or raw materials storage areas at an industrial plant;

c. A discharge from a municipal separate storm sewer system serving a population of one hundred thousand or more; or

d. A discharge which the commissioner determines contributes to a violation of water quality standards adopted pursuant to section 17-0301 of this article or is a significant contributor of pollutants to the waters of the state.

3. Permits for discharges from municipal storm sewers:

a. May be issued on a system or jurisdiction-wide basis, pursuant to paragraph (a) of subdivision seven of section 70-0117 of this chapter;

b. Shall include a requirement which regulates non-stormwater discharges into the storm sewers; and

c. Shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system design and engineering methods, and such other provisions as the commissioner determines appropriate for the control of such pollutants.

4. The commissioner shall promulgate regulations setting forth the requirements for permit applications for stormwater discharges and the deadlines for the receipt of applications.

S 17-0809. Effluent limitations.

1. SPDES permits issued pursuant hereto shall contain applicable effluent limitations as required by the Act and as may be promulgated by the department.

2. Notwithstanding any other provision of this article, any point source the construction of which is commenced after the date of enactment of the Act and which is so constructed as to meet all applicable standards of performance shall not be subject to any more stringent standard of performance during a ten-year period beginning on the date of completion of such construction or during the period of depreciation or amortization of such facility for the purposes of section 167 or 169 (or both) of the Internal Revenue Code of 1986, whichever period ends first.

3. Notwithstanding any other provision of this article, when effluent limitations are established they must be at least as stringent as the effluent limitations previously required unless the commissioner determines, through regulation, that an exception is warranted as provided in section 303(d) and 402(o) of the Federal Water Pollution Control Act (33 U.S.C. sections 1313(d) and 1342(o)) as amended by the Water Quality Act of 1987.

S 17-0811. Application of effluent standards and limitations; water quality standards; other requirements.

SPDES permits issued pursuant hereto shall include provisions requiring compliance with the following, where applicable;

1. effluent limitation.
2. standards of performance for new sources.
3. toxic and pretreatment effluent standards.
4. ocean discharge criteria adopted by the federal government.
5. any further limitations necessary to insure compliance with water quality standards adopted pursuant to state law.

S 17-0813. Compliance schedules.

SPDES permits issued pursuant hereto may contain compliance schedules. Such compliance schedules shall require that the permittee within the shortest reasonable time consistent with the requirements of the Act conform to and meet;

1. applicable effluent limitations.
2. any further limitations necessary to insure compliance with water quality standards adopted pursuant to state law.
3. standards of performance for new sources.
4. ocean discharge criteria adopted by the federal government pursuant to the Act.
5. toxic and pretreatment effluent standards.

S 17-0815. SPDES permits; additional terms and conditions.

SPDES permits shall include the following provisions, terms, requirements and conditions;

1. that all discharges authorized by the permit shall be consistent with the provisions, terms, requirements and conditions of such permit.
2. that facility expansions, production increases or process modifications by the permittee which result in new or increased discharges of pollutants into the waters of the state shall be reported by the permittee by submission of a new SPDES application.
3. that the discharge of any pollutant not identified and authorized by such permit or the discharge of any pollutant more frequently than or at a level in excess of that permitted by such permit shall constitute a violation of the terms of the permit.
4. that, where the permit is for a publicly owned treatment works, notice shall be given the department of any new introduction into such works of pollutants or substantial changes in volume or character of pollutants.
5. that for discharges from publicly owned treatment works appropriate measures will be established by the permittee to insure compliance by industrial users with any system of user charges and recovery of construction costs required under the provisions of the Act.
6. that such permit may be modified, suspended or revoked where the department finds.
 - a. a violation of any term of the permit;
 - b. that the permit was obtained by misrepresentation or failure to disclose fully all relevant facts; or
 - c. a change in conditions or the existence of a condition which

requires either a temporary or permanent reduction or elimination of the authorized discharge.

7. such other terms, provisions, requirements or conditions as may be necessary to meet the requirements of the Act.

8. recording, reporting, monitoring, and sampling requirements applicable under the Act.

S 17-0815-a. Discharge point signs.

1. Any person possessing a SPDES permit which allows the discharge of waste water into the surface waters of the state shall post a sign as provided for in subdivision two of this section at all discharge points to surface waters, except for those sites where the discharge is composed exclusively of storm water runoff.

2. (a) All SPDES permit holders for discharges to surface waters shall erect or post a conspicuous and legible sign of not less than eighteen inches by twenty-four inches bearing the following statement:

"N.Y.S. Permitted Discharge Point Permit No. (here insert permit number). For information on this discharge you can contact:"

The sign shall also contain the following information: The SPDES permit number as issued by the department; the name and telephone number of the permit holder which shall be the business office repository of the permit holder as required by this title; and the name, address and telephone number of the regional department office in which the discharging facility is located.

(b) The permit holder shall provide for public review at the business office repository of the permit holder or at the off-premises location of its choice (such location shall be the village, town, city or county clerk's office, local library or such other location as the department and permit holder shall agree upon) all the Discharge Monitoring Reports (DMR) prepared by the permit holder to demonstrate compliance with the SPDES permit conditions. A copy of each DMR shall be placed on file at such location at the same time it is sent to the department. This information shall be kept on file for the period of the effective dates of the SPDES permit.

(c) The permit holder shall be in compliance with this title by providing, at its option, on or off premises inspection of documents pursuant to paragraphs (a) and (b) of this subdivision and providing the address or location where the required information is available for public review upon an inquiry.

3. The department shall, pursuant to the terms and conditions of the permits issued pursuant to this title, establish the actual appearance and location of the sign on the property of the permit holder in as close proximity to the point of discharge into the surface waters as is reasonably possible while ensuring the maximum visibility from the surface water and shore.

4. It shall be the responsibility of the permit holder to periodically and reasonably maintain the sign to ensure that it is still legible, visible and factually correct. A good faith documented effort by permit holder to maintain such sign will be an affirmative defense for its absence.

5. The department may in its discretion waive all or part of the

requirements of this section if it determines that: (a) such sign cannot be reasonably maintained; (b) such sign would be inconsistent with the provisions of another statute; (c) such sign could not be so located as to provide a public purpose; (d) the nature of the discharge is temporary and of a relatively short duration; (e) the permit has been issued under the terms and conditions of a general permit as authorized by this title; or (f) the discharge is not a major, significant discharge.

S 17-0816. Coordination with AEM program.

To the extent practical and consistent with the purposes of this title and title seven of this article, SPDES permits for farm operations participating in the agricultural environmental management (AEM) program as set forth in article eleven-A of the agriculture and markets law shall incorporate as part of the SPDES permit terms and conditions any AEM plan prepared for the permit applicant.

S 17-0817. SPDES permits; duration and reissuance.

1. SPDES permits issued in lieu of national pollutant discharge elimination system permits shall be valid for a fixed term not to exceed five years. All other SPDES permits issued pursuant to this chapter shall be valid for a term not to exceed ten years.

2. All SPDES permits may be administratively renewed in accordance with article seventy of this chapter.

3. The department shall review at least once every five years all existing permits for conformance with new federal treatment technology, new state water quality classifications and water quality standards.

4. The department shall develop a priority ranking system of SPDES permits. The ranking system shall prioritize permits for full technical review and, when necessary, modification. For purposes of this subdivision, full technical review shall mean the complete evaluation of all elements of the permit associated with the ranking system's priority ranking factors, together with substantive issues identified in comments submitted during the public comment period, and the verification of the accuracy and appropriateness of all other information contained in the permit. Any permits reviewed pursuant to this subdivision shall require compliance with current effluent standards and limitations and water quality standards.

5. Any interested party may request at any time that a permit be modified, suspended or revoked on the grounds that newly discovered, material information has been discovered; that a material change in environmental conditions has occurred; that relevant technology or applicable law or regulations have changed since the issuance of the existing permit; or on other grounds established by the department by regulation. All such requests shall be in writing and contain facts or reasons supporting the request. If the department determines that the request is not justified, it shall send the party a brief written response giving the reasons for the decision. A copy of such request and the department's response shall be sent to the permittee. If the department determines that the request is justified, it shall take action pursuant to article seventy of this chapter.

6. Within eight months after the effective date of this section the department shall hold at least three public hearings to solicit public comments on the SPDES permit priority ranking system, including the permit priority ranking factors and the weighing and scoring system. All comments submitted during the hearing process and associated comment period shall be considered by the department in the review, and modification if appropriate, of the SPDES permit priority ranking system. Thereafter, whenever the department reviews the SPDES permit priority ranking system for possible modification, the department shall formally solicit and provide for the involvement of the public in such review. The department shall annually publish in the environmental notice bulletin any changes in the priority ranking list, and solicit and provide for the involvement of the public in a review of the priority ranking list.

S 17-0819. Applications, reports, notices; provisions to insure verity.

All applications, reports, notices or notifications required or authorized to be made or filed by this title or by rules or regulations promulgated pursuant hereto or by the provisions or conditions of any permit issued pursuant to this title or title three of this article by or on behalf of a permittee, applicant for a permit or person in control of an outlet into the water of the state or point source shall be verified or sworn to in respect to all statements of fact therein or shall bear a form notice as provided in section 210.45 of the penal law to the effect that false statements made therein are punishable.

S 17-0821. Fees.

The department is hereby authorized to establish a schedule of reasonable fees, such schedule taking into consideration the volume of the discharge and treatment costs, for application for issuance of SPDES permits to compensate the department for its expenses hereunder, giving due recognition to the amount of federal assistance available; provided, however, that the department shall not charge a publicly owned drinking water treatment plant the rates charged industrial facilities, but shall consider such plants to be municipal facilities for the purposes of the imposition of fees pursuant to section 72-0602 of this chapter.

S 17-0823. Power plant siting.

In the case of a major steam electric generating facility, as defined in section one hundred forty of the public service law, for the construction or operation of which a certificate is required under article eight of such law, an applicant shall apply for and obtain such certificate in lieu of filing an application and obtaining a permit under this article. Any reference in this article to a permit shall, in the case of such major steam electric generating facility, be deemed for all purposes to refer to such certificate, provided that nothing herein shall limit the authority of the departments of health and environmental conservation to monitor the environmental and health impacts resulting from the operation of such major steam electric generating facility and to enforce applicable provisions of the public health and environmental conservation laws and the terms and conditions of the certificate

governing the environmental and health impacts resulting from such operation. In such case all powers, duties, obligations and privileges conferred upon the department by this article shall devolve upon the New York state board on electric generation siting and the environment. In considering the granting of permits, such board shall apply the provisions of this article and the Act.

S 17-0825. Discharges of industrial waste to publicly owned treatment works.

Persons discharging industrial waste to a publicly owned treatment works shall comply with toxic effluent standards and pretreatment standards and to monitoring, reporting, recording, sampling and entry requirements provided by the Act or adopted pursuant thereto.

S 17-0826. Notification of discharges affecting groundwaters.

Whenever a provision of this title is violated by a facility operating under or pursuant to a SPDES permit and located within an area designated pursuant to any federal or state statute as a sole source aquifer, all public water purveyors with a service area or portion thereof located within a three mile radius of the violating facility shall be notified by the department of such violation if the department determines that the violation could have a significant impact on the water resources of the area. The department's notices pursuant to this section shall be made within fourteen days of the official notice of noncompliance of the SPDES permit to the violating facility.

For the purposes of this section "public water purveyor" shall mean any person, partnership, public or private corporation, municipality, or public authority which sells water derived from a sole source aquifer to at least five service connections or at least twenty-five individuals.

S 17-0827. Conflicts of interest.

The commissioner of the department or his designee responsible for issuance of SPDES permits hereunder, is hereby prohibited from receiving, or during two years prior to approval of an application for a permit from having received, a significant portion of his income directly or indirectly from permit holders or applicants for a permit. For the purposes of this section (a) "significant portion of his income" shall mean ten percent of gross personal income for a calendar year, except that it shall mean fifty percent of gross personal income for a calendar year if the recipient is over sixty years of age and is receiving such portion pursuant to retirement, pension, or similar arrangement; (b) "income" includes retirement benefits, consultant fees, and stock dividends; and (c) income is not received "directly or indirectly from permit holders or applicants for a permit" where it is derived from mutual-fund payments, or from other diversified investments over which the recipient does not know the identity of the primary sources of income.

S 17-0828. Discharges affecting groundwaters.

In addition to any other requirements imposed by this title, any person seeking a SPDES permit or a renewal hereunder, within an area

designated pursuant to any federal or state statute as a sole source aquifer, shall include as a part of the required information, the name and address of all public water purveyors with a service area or portion thereof located within a three mile radius of the applicant's facility. The names of all public water purveyors identified in the SPDES permit application or renewal shall be included in the project description as set forth when announced in the environmental notice bulletin.

For the purposes of this section "public water purveyor" shall mean any person, partnership, public or private corporation, municipality, or public authority which sells water derived from a sole source aquifer to at least five service connections or at least twenty-five individuals.

S 17-0829. Inspection and entry.

(a) To carry out the purposes of this Act or any rule, regulation, order, or permit, issued thereunder, the department or its authorized representative, upon presentation of his credentials:

(1) shall have a right of entry to, upon, or through any premises in which any effluent source is located or in which any records are required to be maintained;

(2) may at reasonable times have access to and copy any records required to be maintained;

(3) may inspect any monitoring equipment or method which is required; and

(4) may have access to and sample any discharges or pollutants to waters or to publicly owned treatment works resulting directly or indirectly from activities or operations of the owner or operator of the premises in which the effluent source is located.

(b) For the purposes of this section the term "effluent source" shall mean:

(1) a point source of the discharge of pollutants or

(2) a source of introduction of pollutants into publicly owned treatment works by an industrial user.

S 17-0831. Environmental monitors for tankers.

1. At the discretion of the commissioner, a tanker withdrawing or transporting water where such withdrawal or transport was authorized pursuant to a permit issued under section 15-1506 of this chapter shall be accompanied by an environmental monitor authorized by the department.

2. It shall be the duty of such environmental monitor to inspect and monitor the compliance of such tankers with all federal, state and local requirements for operations and ballasting.

3. Nothing in this section shall prohibit the department from entering into a memorandum of understanding with the board of commissioners of pilots, created by article six of the navigation law, to allow licensed pilots to perform the functions of environmental monitors.

4. The department is authorized to set environmental monitoring fees to recover all costs associated with such monitors. Every tanker withdrawing or transporting water where such withdrawal or transport was authorized pursuant to a permit issued under section 15-1506 of this chapter shall be subject to such fees.

**ECL
ARTICLE 17
TITLE 14
NONPOINT SOURCE WATER POLLUTION CONTROL**

Section 17-1401. Purpose.

17-1403. Definitions.

17-1405. Inventory.

17-1407. Priority nonpoint source pollution.

17-1409. State assistance for non-agricultural nonpoint source abatement and control projects.

17-1411. Regulations.

S 17-1401. Purpose.

It is the purpose of this title to safeguard the waters of the state from nonpoint source pollution by controlling and abating new and existing sources of nonpoint source pollution.

S 17-1403. Definitions.

As used in this title:

1. "Best management practices" means methods, measures or practices determined to be the most practical and effective in preventing or reducing the impact of pollutants generated by nonpoint sources to a level compatible with water quality standards established pursuant to section 17-0301 of this article. Best management practices include, but are not limited to, structural and nonstructural controls and operations and maintenance procedures. Best management practices can be applied before, during or after pollution producing activities to reduce or eliminate the introduction of pollutants into receiving waters.

2. "Municipal corporation" means a county, city, town or village or an entity designated to act on behalf of such.

3. "Nonpoint source" means any source of water pollution or pollutants which is not a discrete conveyance or point source permitted pursuant to title seven or eight of this article.

4. "Nonpoint source abatement and control program" means a program of activities and projects for the abatement and reduction of nonpoint source pollution through the implementation of best management practices.

5. "District" means a county soil and water conservation district created pursuant to section five of the soil and water conservation districts law.

S 17-1405. Inventory.

1. Within eighteen months of the effective date of this title the commissioner, in cooperation with the state soil and water conservation committee, shall prepare a report which:

a. identifies those water bodies within the state which, without additional action to control nonpoint sources of pollution, cannot reasonably be expected to attain and maintain applicable water quality standards; and

b. identifies categories or subcategories of nonpoint sources or

particular nonpoint sources which add significant amounts of pollution to each water body identified above.

2. The report prepared pursuant to this section shall be revised by the commissioner in cooperation with the state soil and water conservation committee at least every five years.

S 17-1407. Priority nonpoint source pollution.

From the inventory developed pursuant to section 17-1405 of this title the commissioner, after consultation with the state soil and water conservation committee, shall develop a prioritized list of water bodies, management of which will reduce and control nonpoint source pollution and improve water quality. In developing such list, consideration shall be given to the existing water quality of the water body, the best usage of the water body pursuant to section 17-0301 of this article and its potential for improvement.

S 17-1409. State assistance for non-agricultural nonpoint source abatement and control projects.

1. Subject to the availability of funds appropriated therefor, a matching grant program is established to fund the costs of implementing nonpoint source abatement and control projects that meet the following criteria:

- a. the project must consist of activities and projects which will significantly reduce, abate or control nonpoint source pollution originating from non-agricultural activities;
- b. the project must be proposed for implementation by a municipal corporation, or by a district at the formal request of such corporation;
- c. the project must be located within a water body identified by the commissioner, pursuant to section 17-1407 of this title;
- d. the project must propose to implement best management practices which meet the criteria promulgated pursuant to section 17-1411 of this title; and
- e. the municipal corporation must have funds available to pay for its share of the eligible project costs.

1-a. Subject to the availability of funds appropriated therefore, a matching grant program is established to fund the cost of comprehensive watershed based water quality management designed to address the reduction and control of nonpoint source pollution and the improvement of water quality in a water body or water bodies identified on the prioritized list developed pursuant to section 17-1407 of this title.

2. Applications for matching grants shall contain the following information:

- a. the name and location of the water body and the nonpoint source problem to be addressed;
- b. for projects described in subdivision one of this section, an identification of the best management practice to be implemented;
- c. a cost estimate for the proposed project;
- d. the source of funds available to pay for the non-state share of the eligible costs;
- e. information sufficient to demonstrate that the criteria set forth in subdivision one of this section have been met; and

f. such other information as may be required by the commissioner through regulations.

3. In awarding grants pursuant to this section, the commissioner shall give preference to those projects located or designed to address water quality concerns for in the highest priority water bodies identified pursuant to section 17-1407 of this title.

4. Eligible costs that may be funded pursuant to this section are architectural and engineering services, plans and specifications, consultant and legal services and other direct expenses related to comprehensive watershed based water quality management and project implementation.

5. Matching grants awarded pursuant to this section shall be up to seventy-five percent of the eligible costs for any specified project.

6. Notwithstanding any other provision of law to the contrary, storm water discharges of a municipality permitted pursuant to title seven or eight of this article shall be treated as a non-agricultural nonpoint source for the purpose of qualifying for funding pursuant to this section.

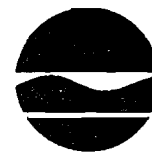
S 17-1411. Regulations.

1. The commissioner may promulgate regulations necessary to effectuate the purposes of section 17-1409 of this title including, but not limited to, regulations setting forth criteria for submission and processing of grant applications, components of best management practices and state standards necessary to control nonpoint source pollution.

2. Regulations promulgated pursuant to subdivision one of this section shall not require the approval of the state environmental board pursuant to paragraph a of subdivision two of section 3-0301 or subdivision two of section 5-0107 of this chapter.

Appendix C

SPDES Permit No. NY-0007161
Cottrell Paper Co. Inc.
NYS Route 29
Rock City Falls, Saratoga County, NY 12863



Thomas C. Jorling
Commissioner

MEMORANDUM

TO: Distribution Below
FROM: Bob Hannaford
SUBJECT: SPDES PERMIT CLASSIFICATION CHANGE

DATE: November 30, 1993 (C.T.V) Milton (T)

PERMITTEE NAME: Cottrell Paper Co. Inc. COUNTY: Saratoga

SPDES NO.: NY- 0007161 DEC NO.: 5-4142-00001/00002-1

DISCHARGE CLASS (CL) CHANGED FROM 03 TO 01

TOXIC CLASS (TX) CHANGED FROM -- TO --

REASON: This permit is no longer on the list of EPA Major permits (see below).
Therefore, the permit issued 11/23/93 listed an incorrect class.

NOTE: *Do not modify the permit for this internal-use class code change, but please correct your records.*

CLASSIFICATION CODES

Non-significant classes*

02 = P/C/I
04 = Industrial

Major Classes

03 = Industrial**
05 = Municipal**

Significant Minor Classes

01 = Industrial**
07 = Municipal**
09 = P/C/I**
10 = Petroleum
Remediation

* Permits must not require DMR submissions for these classes.
** These permits must require DMR submissions

TOXIC CODES

N = Non-Toxic
T = Toxic (see TOGS 1.2.2 for definition of Toxic Substances)

DISTRIBUTION:

~~Sources Surveillance Section~~ BWF0
Region 5, Regional Water Engineer
Region 5, Regional Permit Administrator, Warrensburg
~~BWF0 Section~~
File

FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning EDPand lasting until EDP + 5 YEARS

the discharges from the permitted facility shall be limited and monitored by the permittee as specified below:

Outfall Number & Effluent Parameter	Discharge Limitations		Units	Minimum Monitoring Requirements	
	Daily Avg.	Daily Max.		Measurement Frequency	Sample Type
<u>001 - (Process Outfall)</u>					
Flow	Monitor	Monitor	MGD	Continuous	Recorder
BOD ₅	417	758	lbs/day	Weekly	24-hr. Comp.
Suspended Solids	333	682	lbs/day	Weekly	24-hr. Comp.
Settleable Solids	Monitor	Monitor	ml/l	Daily	24-hr. Comp.
pH	6.5-9.0	range	SU	2/week	Grab
Zinc, Total	Monitor	0.9	lbs/day	2/month	24-hr. Comp.
Temperature (May-Oct.) (Note 1)	78	85	Deg.F	Weekly	Instantaneous
Temperature (Nov.-Apr.) (Note 1)	53	62	Deg.F	Weekly	Instantaneous
Phenolics, Total	0.06	Monitor	lbs/day	2/month	24-hr. Comp.
Phosphorus, Total Soluble	Monitor	Monitor	lbs/day	Monthly	24-hr. Comp.
<u>002 - (Sanitary to Groundwater)</u>					
Flow		1,000	GPD	None	N/A

Note 1: These effluent limitations shall be in effect for a period of one year and be may be revised subject to the review and evaluation of the data from the special monitoring program required below.

Note 2: The permit application must list all the corrosion/scale inhibitors or biocidal-type compounds used by the permittee. If use if new boiler/cooling water additives is intended, application must be made prior to use.

SPECIAL MONITORING REQUIREMENTS

In lieu of including a year-round effluent temperature limit of 70°F in this permit, the permittee shall conduct a one year monitoring program to measure the temperature both above and below the point of discharge. The stream monitoring shall begin on the effective date of this permit and be conducted weekly so as to coincide with the weekly sampling of the facility's wastewater discharge. The weekly results of the stream temperatures and the effluent temperature shall be tabulated and submitted, within 30 days of the expiration of the one year period, to the Region 5 office where the Discharge Monitoring Reports are sent.

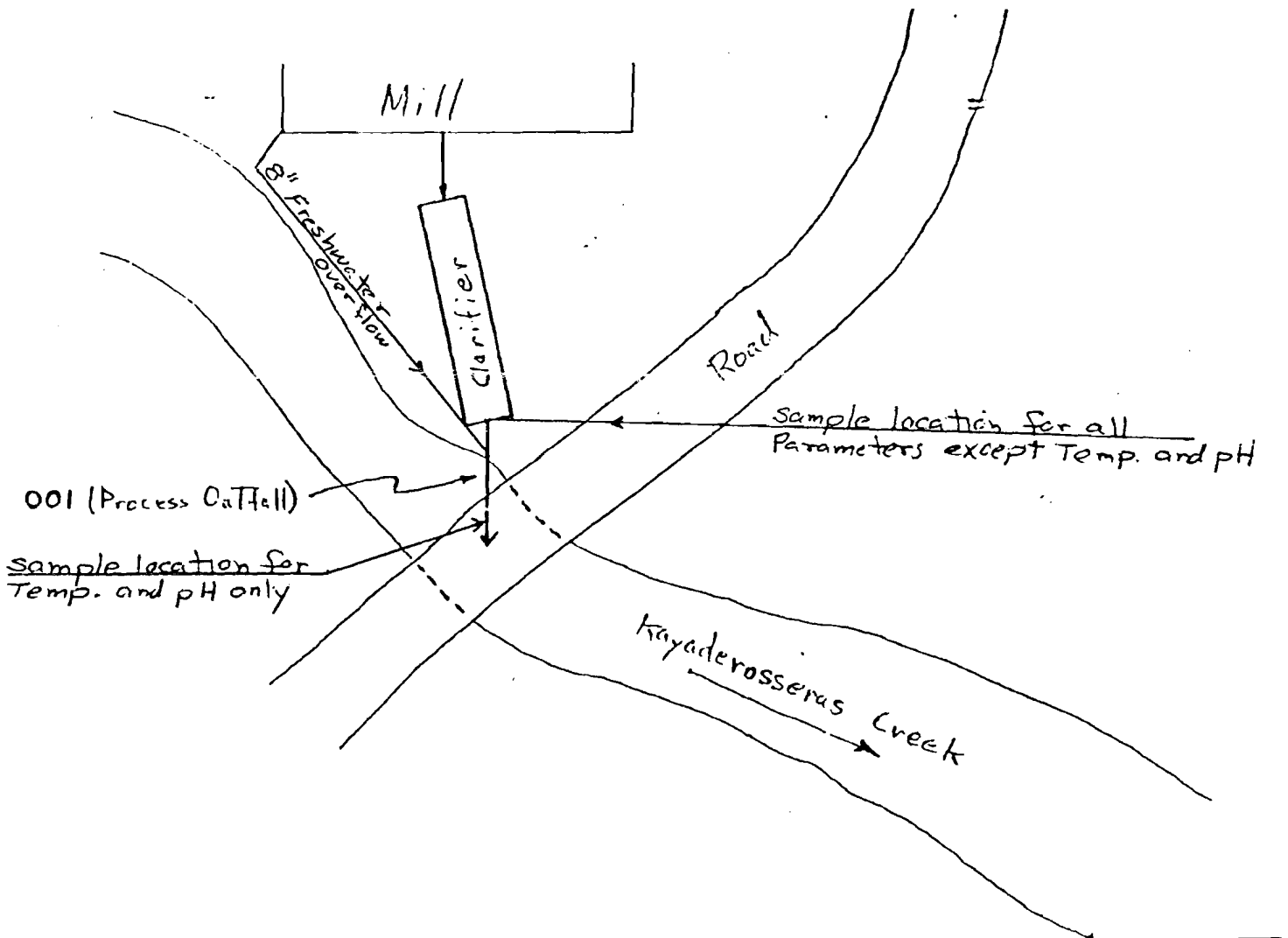
DEFINITIONS OF DAILY AVERAGE AND DAILY MAXIMUM

The daily average discharge is the total discharge by weight or in other appropriate units as specified herein, during a calendar month divided by the number of days in the month that the production or commercial facility was operating. Where less than daily sampling is required by this permit, the daily average discharge shall be determined by the summation of all the measured daily discharges in appropriate units as specified herein divided by the number of days during the calendar month when measurements were made.

The daily maximum discharge means the total discharge by weight or in other appropriate units as specified herein, during any calendar day.

MONITORING LOCATIONS

The permittee shall take samples and measurements, to comply with the monitoring requirements specified in this permit, at the location(s) indicated below: (Show sampling locations and outfalls with sketch or flow diagram as appropriate). Prior to discharge.



NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
State Pollutant Discharge Elimination System (SPDES)

DISCHARGE PERMIT
Special Conditions (Part I)



Industrial Code: 2631
Discharge Class (CL): 03 01 RKH
Toxic Class (TX): T
Major Drainage Basin: 04 11
Sub Drainage Basin: 11 01
Water Index Number: H-299-P27-13
Compact Area: _____

SPDES Number: NY-0007161
DEC Number: 5-4142-00001/00002-1
Effective Date (EDP): 1/DEC/1993
Expiration Date (ExDP): 1/DEC/1998
Modification Date(s): _____
Attachment(s): General Conditions (Part II) Date: 11/90

This SPDES permit is issued in compliance with Title 8 of Article 17 of the Environmental Conservation Law of New York State and in compliance with the Clean Water Act as amended, (33 U.S.C. Section 1251 et. seq.) (hereafter referred to as "the Act").

PERMITTEE NAME AND ADDRESS

Attention: Ted Harrington

Name: Cottrell Paper Company, Inc.

Street: NYS Route 29

City: Rock City Falls

State: NY

Zip Code: 12863

is authorized to discharge from the facility described below:

FACILITY NAME AND ADDRESS

Name: Cottrell Paper Company, Inc.

Location (C,T,V): Milton (T)

County: Saratoga

Facility Address: P.O. Box 35

City: Rock City Falls

State: NY

Zip Code: 12863

NYTM - E: _____

NYTM - N: _____

4

From Outfall No.: 001 at Latitude: 43° 03' 40" & Longitude: 73° 55' 00"

into receiving waters known as: Kayaderosseras Creek

Class: C(T)

and; (list other Outfalls, Receiving Waters & Water Classifications)

002 - Sanitary to Groundwater Class GA

in accordance with the effluent limitations, monitoring requirements and other conditions set forth in Special Conditions (Part I) and General Conditions (Part II) of this permit.

DISCHARGE MONITORING REPORT (DMR) MAILING ADDRESS

Mailing Name: Cottrell Paper Company, Inc.

Street: P.O. Box 35

City: Rock City Falls

State: NY

Zip Code: 12863

Responsible Official or Agent: James L. Cottrell

Phone: (518)885-1702

This permit and the authorization to discharge shall expire on midnight of the expiration date shown and the permittee shall not discharge after the expiration date unless this permit has been renewed, or extended pursuant to law. To be authorized to discharge beyond the expiration date, the permittee shall apply for a permit renewal no less than 180 days prior to the expiration date shown above.

DISTRIBUTION:

- Dr. Baker
- Dr. Spear
- B. Fear
- R. Hannaford
- R. Larose
- W. Lavigne

Deputy Regional	
Permit Administrator:	
<u>Thomas W. Hall</u>	
Address:	
<u>P.O. Box 220, Warrensburg, NY 12885-0220</u>	
Signature: <u>th w. Hall</u>	Date: <u>11/23/93</u>