

Water Pollution Control Authority
Plan For The Town of North Stonington

January 18, 1994



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PREFACE

This Water Pollution Control Plan for the Town of North Stonington, Connecticut is for the purpose of: (1) providing information and guidelines for ongoing inventory and monitoring of water quality and potential pollution sources so as to provide early warning signs enabling sewer avoidance, or to determine if sewers are required and (2) provide information as to the workings of the North Stonington Water Pollution Control Authority (WPCA) for the benefit of all concerned.

1.0 INTRODUCTION

Sections 22a-416 through 22a-484 of the Connecticut General Statutes provide for water pollution control to protect the waters of the State of Connecticut. The Commissioner of Environmental Protection is given broad powers to provide this protection. Some of these powers have been delegated to municipal water pollution control authorities. The Commissioner, however, retains the authority to preempt a decision of a municipal water pollution control authority if required to uphold the state law, or the Federal Clean Water Act (33USC 1251 et seq.). All decisions and actions of the WPCA are subject to the review and approval of the Commissioner.

Section 7-246 of the Connecticut General Statutes authorize a town to create a WPCA. If sewers are utilized within the borders of a municipality, either to correct water pollution problems or to prevent pollution from occurring, the municipality is required by state statute to have a Water Pollution Control Authority to ensure the effective management of the sewer system.

In 1992 the Town of North Stonington was presented with plans for large hotels to be located in the aquifer protection zone near the Route 2 - Route 184 rotary and east of Route 2 south of I-95. The Planning and Zoning Commission approved the requested regulation change and special permit for a hotel north of the rotary on Route 2, with the condition that sewerage must be approved by the Connecticut Department of Environmental Protection. The volume of effluent from the planned hotel indicated that sewers might be necessary to prevent water pollution. Other businesses in the area expressed an interest in hooking up to sewers if available. Many residents of town expressed an interest in promoting economic development in the area to provide tax relief. The success and expansion plans of the Mashantucket Foxwoods Casino and Resort was expected to bring commercial development pressures and opportunities in the commercial, office/research, highway-commercial, and industrial zoned areas.

A primary concern in pursuing these general development goals was the protection of the aquifer underlying a large portion of the area zoned for commercial and industrial development. A large, primary aquifer has been identified by the Connecticut DEP and the Planning and Zoning Commission. Zoning regulations have been

adopted to protect this aquifer area. The aquifer has also been identified and explored by the Town of Westerly, Rhode Island as a significant source of future drinking water for Westerly's municipal water system.

In view of these considerations the Board of Selectmen appointed the current North Stonington Water Pollution Control Authority effective February 20, 1993, consisting of eight members in accordance with the Town of North Stonington ordinance "AN ORDINANCE CONCERNING SEWER AUTHORITY". Section 7-246(b) of the Connecticut General Statutes provides that the WPCA may prepare and periodically update a water pollution control plan for the Town: "Such plan shall designate and delineate the boundary of: (1) areas served by any municipal sewerage system; (2) areas where municipal sewerage facilities are planned and the schedule of design and construction anticipated or proposed; (3) areas where sewers are to be avoided; (4) areas served by any community sewerage system not owned by a municipality and (5) areas to be served by any proposed community sewerage system not owned by a municipality. Such plan shall also describe the means by which municipal programs are being carried out to avoid community pollution problems. The authority shall file a copy of the plan and any periodic updates of such plan with the commissioner of environmental protection and shall manage or ensure the effective management of any community sewerage system not owned by a municipality."

The powers of the WPCA are advisory unless pollution occurs or is likely to occur to the waters of the State of Connecticut or of the United States. Waters of the State are those waters that enter or leave a piece of property under common ownership within the state. Waters of the United States are those that reach the ocean. Pollution is anything that lessens the purity of the waters of the State or United States. Pollution or the threat of pollution can often be contained within the confines of a property by proper on-site pollution control facilities and management. This is directly administered on the local level by the Town Sanitarian, Health Officer, Inland Wetlands Agency, and the Zoning Enforcement Officer acting under various state and local laws and regulations.

The Planning and Zoning Commission provides the land use planning, regulations, and enforcement designed to prevent water pollution in areas of the town where sewers are neither needed or wanted. This is the sewer avoidance area of the town and may consist of part or all of the town. If the intensity of development in any area of town should exceed the capacity of the land to handle on-site disposal, sewers will be required to prevent water pollution regardless of whether they are planned or desired.

The town, through the planning process and its Planning and Zoning Commission, may create a district or districts intended for future sewer service. This may be for the purpose of encouraging economic development or a recognition that service will be needed in the future by residential or other uses. The WPCA has broad powers to correct pollution by installing sewer systems, and has jurisdiction over the installation and management of any sewer system constructed within the town.

Installation of sewers in an area where sewers were not anticipated may change the rural character of North Stonington which has been diligently preserved by its people and elected officials. Sewers are likely to bring increased density of development. If the increased density of development is located above and near a drinking water aquifer or in an aquifer protection zone, non-point sources of pollution such as runoff from parking areas, streets, accidental spills, and the like, may cause pollution that cannot be easily corrected by added sewer service. This is a danger that must be recognized and specifically dealt with in formulating the Town's plan of development.

A goal of the WPCA is to help prevent water pollution by providing advisory assistance to those individuals, boards, and commissions who have the authority to plan, regulate, and enforce the measures necessary to prevent water pollution. As an ongoing service, the WPCA will aid this effort by providing educational material to the public concerning the proper use and maintenance of residential septic systems.

2.0 WPCA ACTIVITIES

The North Stonington Water Pollution Control Authority was originally created by Town Ordinance in 1972. The WPCA remained active until 1976 when its members resigned and effectively disbanded the WPCA. No new members were appointed until January of 1993. The WPCA engaged in a full range of activities during 1993 and remains fully active at the present time.

2.1 PRIOR ACTIONS AND REPORTS

On June 19, 1967 the State of Connecticut DEP issued the Town of North Stonington Order No. 84, ordering the Town to construct necessary sewage collection systems to serve present and future needs and to provide capacity for future industrial waste. This order was based on the DEP having found that the Town of North Stonington was a municipality within which a community pollution problem could reasonably be anticipated in the future. Facilities were to be constructed and in operation by December 31, 1972. The order called for the discharge of all sewers to the Pawcatuck system in the Town of Stonington.

The Town engaged the engineering firm of Metcalf and Eddy in September of 1969 to study and report on the need for sewers. Metcalf and Eddy concluded in May of 1970 that no significant pollution problems existed, that sewers would not be needed for 8 - 10 years, and requested a two year extension of Order No. 84 to allow for a comprehensive engineering report to be submitted to the DEP. The DEP granted the requested extension and changed the wording of its Order to read "Having found that the Town of North Stonington is a municipality causing pollution of the waters of the State of Connecticut . . . "

A North Stonington Sewerage Study Committee was appointed by the Board of selectmen in June 1971, and was formally established

at a Town Meeting held on January 31, 1972, as a Sewer Authority with the duties and powers specified in State Statutes. The Authority conducted extensive surveys of sanitary systems within the town and conducted extensive sampling of waters of the town. Long range planning (50 years out), and its impact on the need for sewers was evaluated in cooperation with the Planning and Zoning Commission and the Industrial and Development Commission.

The Authority issued its Sewer Authority Engineering Report dated April 29, 1972, with the following conclusions and recommendations:

"It is the conclusions of the North Stonington Sewer Authority that municipal sewerage service will not be required before the year 2020. The basis for this conclusion is developed in the succeeding sections of this report and is briefly summarized herein without regard to the order of importance:

1. Sanitary survey and sampling analysis show that existing problems are relatively few in number and correctable on site.
2. The town growth rates are following the "low" predictions of the 1967 Plan of Development.
3. Growth patterns show no tendency to develop growth centers. The town is truly rural and is expected to remain so.
4. Zoning and subdivision regulations provide the mechanism to ensure and enforce orderly growth and the development of responsible and technically adequate on-site disposal systems and drainage.
5. Industrial growth is predicted to occur to a modest level within a designated area which has adequate soil conditions to allow safe on-site disposal of wastes."

In its recommendations the Authority assumed the responsibility of maintaining a continuous monitoring of those conditions and activities which might be expected to endanger the purity of our waters. The institution of a continuing program of water sampling was recommended to provide early indications of impending sewage problems. Biennial reports would revise, as appropriate, the population growth and density projections, industrial development projections and commercial development projections thereby providing early indications of sewer needs if required earlier than the year 2020. The Authority requested the rescinding of Order No. 84.

Sewer Authority Engineering Report No. 2 was issued April 20, 1976. The Authority stated that "the conclusions of the original report are still valid and are repeated in this report". The 1976 report documents the activities of the Authority, updates data where required, and includes information requested by the DEP. Considerable activity and corrective actions were taken by the Authority and other town agencies. Four homes in the Village were

condemned and \$60,000 was appropriated for the purchase and demolition of the four homes.

The Authority resigned on April 30, 1976, feeling that it no longer could be effective. The DEP subsequently rescinded Order No. 84, and the extra capacity in the Pawcatuck sewerage treatment plant provided to receive sewerage from North Stonington was not used. Slow growth and sewer avoidance practices in accordance with the recommendations of the Sewer Authority Engineering Reports, have maintained sewer avoidance to this date.

The current Water Pollution Control Plan for the Town of North Stonington was approved by the Connecticut Department of Environmental Protection in 1976 and provided for the avoidance of sewers in the Town of North Stonington through the year 2020. This Plan was based on low population growth projections and the commitment of the Planning and Zoning Commission to use its statutory authority to control the location, density, and type of economic and residential development in North Stonington so that sewers would not be needed. The Plan also reflected the view of the Industrial and Development Commission of North Stonington that the desired economic development could be handled by on-site disposal systems.

2.2 1993 ACTIONS

The report that follows is an update of the 1976 Plan and continues sewer avoidance as the primary objective in most areas of the town. The WPCA has identified and considered the feasibility of sewers in one commercial/industrial area of the town where high density economic development appears most likely to occur.

Since 1976 increased protection of the aquifers in North Stonington has been an objective of the Planning and Zoning Commission and aquifer protection regulations have been adopted for this purpose. Economic development has continued to be recognized as a means of lowering the tax burden on the residents of the Town and the lands selected in the Plan of Development for economic development are for the most part located within the aquifer protection zones. Therefore, at some point, sewers may be required to protect the waters of the aquifers in the zones selected for economic development. This reality is addressed in the updated report and represents the only major change in the original report.

If sewers are required or planned to promote economic development the updated plan calls for the preparation and adoption by the Water Pollution Control Authority of rules and regulations for the construction, connection, maintenance, and operation of sewers, assessment of benefits and the collection of fees. The WPCA would also be responsible for the negotiation and adoption of an intermunicipal agreement between the Towns of North Stonington and Stonington for use of the Pawcatuck Sewerage Treatment Plant in Stonington and the future monitoring and servicing of North Stonington's system.

After the completion of these agreements the WPCA would

establish a sewer district with the same boundary as the contiguous Industrial, Highway Commercial, and Office/Research zones in the Route 2/ I-95 area as shown on the zoning map current at the time, subject to engineering and financial constraints of constructing a cost effective sewer system. In no event would the sewer district go beyond these contiguous commercial and industrial districts established by the Planning and Zoning Commission. Thereafter, the WPCA would manage or ensure the effective management of any sewer system within the sewer district as provided by State Statute.

Upon taking office the newly constituted WPCA organized and established a schedule of tasks with task leaders, priorities, and weekly meetings that would enable it to perform its statutory duties in the shortest time possible. The WPCA (1) gathered information, (2) evaluated various sewer system options, (3) formulated its conclusions, and (4) issued this updated WPCA Plan, which will be implemented and updated as required.

Workshop sessions with representatives from various state agencies, town agencies, and other interested groups and persons were scheduled at the close of regular meetings. This provided valuable discussion and learning for the WPCA.

When the WPCA was appointed, the developer of the hotel planned north of the rotary indicated to the authority an urgent need for sewer approval and a willingness to bear the cost of achieving this end. The WPCA responded to this need within the statutory limit of its authority. To this end preparations were made to designate a sewer district, hire legal and engineering consultants, commence writing and adopting rules and regulations for the installation, operation, and financing of sewers, and for negotiating an intermunicipal agreement between North Stonington and Stonington for use of the Pawcatuck sewer treatment plant.

The WPCA decided that all costs would have to be borne by the developer and others using the sewers. Anticipating that the initial funding would be forthcoming from the developer, the WPCA retained an attorney specializing in water pollution control and sewers. The WPCA intended to work with the attorney in drafting sewer district regulations, the essential first step in creating a sewer district. The funding, however, was not forthcoming from the developer, and therefore the WPCA was not able to pursue the actual drafting and adoption of a sewer district, regulations or an intermunicipal agreement with the Town of Stonington. The WPCA does not anticipate pursuing these activities until the required funding is in place from either private or public sources.

3.0 EXISTING WATER QUALITY STANDARDS

The basic standards for the quality of Connecticut's water are the Water Quality Standards and Criteria (WQS) as set forth in Connecticut's clean water program. The WQS set an overall policy for management of water quality in accordance with the directive of Section 22a-426 of the Connecticut General Statutes. In simple terms, the policies can be summarized by saying that acceptable water quality can be achieved by applying Department of

Environmental Protection professional standards that shall:

- . Protect surface and ground waters of high quality from degradation.
- . Segregate waters used for drinking from those that play a role in waste assimilation.
- . Restore surface waters that have been used for waste assimilation to conditions suitable for fishing and swimming.
- . Restore degraded ground water to protect existing and designated uses.
- . Provide a framework for establishing priorities for pollution abatement and State funding for clean up.
- . Adopt standards that promote the State's economy in harmony with the environment.

The WQS does not stand alone; rather, they are one critical element in a program to protect and improve water quality. The WQS were written in response to and in concert with, the principles of Connecticut's Water Pollution Control Act, Connecticut General Statutes section 22a-416 et. seq. The Statues set the broad outline and legal framework for an entire program. They establish the authorities and procedures for the WQS, for permitting discharges to the waters of the State and for the abatement of pollution. Within the framework of the Statues, the WQS establish broad policy and objectives to meet the statutory goals. These objectives are then carried out by means of specific procedures and requirements of statutory sections and even more detailed regulations. These include Statues and Regulations for the permitting of discharges to the waters of the State, hazardous materials management, solid waste management, water diversions, structures, dredging, wetlands and others.

4.0 EXISTING SEWERAGE HISTORY

In the 1972 report, four potential sources of pollution were identified. These included Cedar Ridge, Kingswood/Meadowood, North Stonington Village and the I-95 State Rest Area. Visible septic violations were identified in the Village and corrective action was recommended. A potentially serious problem due to the interconnection of house sewage disposal systems and storm drains was identified in Cedar Ridge. This problem was brought to the attention of the Town Health Officer for corrective action. The State Rest Area and Kingswood/Meadowood were found to be adequately managed by present on-site procedures. For the State Rest Area, it was recommended that the State set up a monitoring program to establish that the current on-site sewage disposal system continued

to function adequately.

By 1976, the major problems in the Village had been resolved, although some potential problems remained a source of concern. The status of the State Rest Area, Cedar Ridge and Kingswood/Meadowood areas was unchanged since 1972, with only Cedar Ridge being of significant concern since no improvements had occurred in the intervening four years.

The present WPCA has not updated the status of these potential problem areas. The Town Health Officer and Town Sanitarian have the primary responsibility for ensuring the proper disposal of septic wastes. The Town Sanitarian attended a WPCA workshop session and summarized his presentation by stating that there were no problems in town that could not be handled on-site on a case by case basis.

5.0 LONG RANGE PLAN

For the present time, the WPCA is guided by the Town's Plan of Development (Town Plan) as setting forth the general long range development and land use plan for the town. The WPCA is in agreement with the Town Plan, and feels that it is important for the WPCA to develop its future agenda in accordance with the overall Town Plan, which reflects the consensus of the town's people. The Town Plan includes the following conclusions and recommendations regarding sewers and public water services:

The land use recommendations of the Plan assume a strictly limited and clearly defined extension of public water and sewer service into the town from Stonington. High-intensity economic activities should not be dependent on subsurface sewage disposal systems and on-site water supplies. This can only lead to underground and surface water pollution which, in time, will result in state-mandated abatement procedures.

The availability of these utilities makes it possible to expect that the present rural character found throughout most of North Stonington will be maintained. By concentrating the higher density uses in the area of the town within which necessary public utilities will be provided, balanced town growth can be achieved, in terms of both densities and types of land uses.

The Plan recommends that both public water and sewers be allowed to extend only into the area of the town proposed for economic development. Specifically, this includes the Office Research area on Route 2, the Manufacturing area on Route 49, and the Commercial area at the intersection of Routes 2 and 184. It is the intent of the Plan that public sewers not be extended beyond this defined area and that residential development occurring on the perimeter of this area be at a density that is supported by on-site sewage disposal facilities.

Appendix B to this Plan includes two maps outlining the area of town being considered for a potential sewer district and the remaining sewer avoidance area of town.

The WPCA recognizes that casino-related development by the Mashantucket Pequot Tribe has caused the Town to consider modifications to the Town's Plan of Development, especially in the area of town near the present casino site. It is not anticipated at this time that projected changes in land use will require an unscheduled update of the Town Plan.

6.0 POLLUTION AVOIDANCE PROGRAM

The WPCA has identified three activities as central to a pollution avoidance program for the Town of North Stonington:

1. Provide guidance to Town boards and the general public.
2. Develop and maintain a sewerage disposal inventory.
3. Develop an ongoing water quality sampling and testing program.

6.1 GUIDANCE TO TOWN BOARDS AND THE GENERAL PUBLIC

The WPCA views the prevention of water pollution as a critical long term goal of the Town. The dissemination of information to both the Town's land use boards and the general public is an important role for the WPCA as the pressures for development grow in the years ahead. The WPCA's activities will include:

- . Providing advisory comment to Town boards and commissions when appropriate to avoid land use regulations or other actions that might lead to excessive development density or otherwise threaten the town's waters.

- . Providing advisory comment to town boards and commissions with respect to regulations or other actions involving those industries which the Connecticut Statutes and DEP regulations identify as pollution threats.

- . Disseminating information regarding pollution avoidance to town agencies, boards, and commissions, and the general public.

The WPCA does not view its role as being the promoter of economic development. The WPCA's role is to facilitate and cooperate with the initiatives of other town agencies. The WPCA will work with other agencies to review proposed development activities as requested, and will communicate with the agencies to ensure that they remain informed of the WPCA's activities and concerns.

6.2 SEWAGE DISPOSAL INVENTORY

In order to facilitate maintenance of the conditions necessary for sewer avoidance as specified in this plan, a sewage disposal

inventory will be created and then updated on an annual basis. Included in this inventory will be (1) the four areas of pollution or potential pollution sources identified in the 1972 and 1976 reports (the Village, Cedar Ridge, Kingswood/Meadowood and the State Rest Area), (2) new developments (industrial commercial, agricultural residential) since the 1976 report that represent pollution potential and (3) identifiable future potential sources of pollution.

With the cooperation of the Planning and Zoning Enforcement Officer, the Health Officer, the Sanitarian and other relevant town officials, boards and commissions, an initial and then annual review of prior and current zoning permits issued will be conducted. The present status of these permits with respect to possible sources of pollution will be identified and recorded. A map will be created showing the location and type of potential pollution.

Using the above-described inventory, recommendations will be made on an annual basis to appropriate town officials, boards and commissions as to any actions deemed necessary to assure continued sewer avoidance in areas so designated.

6.3 WATER QUALITY MONITORING

In order to assure early detection of pollution and its source(s) so that corrective action can be taken to avoid the need for sewers, it is the objective of the WPCA to initiate a program of periodic sampling of surface waters for testing. Sampling of subsurface water would be done on an as needed basis.

In order to determine if water pollution existed in 1972, an initial survey of the town was conducted. Based upon the natural drainage characteristics of the land, the Town was subdivided into thirteen drainage districts. Sample sites were then chosen on the basis of current land use patterns. Eleven of the thirteen districts were studied. This same approach was followed in 1976.

It is anticipated that a similar approach to evaluating water quality in town can be followed at the present time. Because of the addition of new or anticipated development, it will be necessary to sample all 13 districts in the current evaluation. This approach will be supplemented with the targeting of known industrial, agricultural, residential (home occupation) and commercial operations identified as either not adequately evaluated in the past or new to the town since 1976. Attention will also be devoted to the identification of any community sewage disposal systems currently in operation or anticipated.

Efforts will also be directed at the identification of existing private water quality organizations and coordination of testing programs where appropriate and to the mutual benefit of the organization and the Town.

The WPCA feels that an ongoing water quality sampling program should be established, and that initially all of the sites listed in the Sewer Authority's 1976 Report No. 2 should be sampled and tested. The sites are listed below and shown on five maps (Figures

4 thru 4D) in Appendix B.

1. Green Fall Br. at Putker Rd.
2. Green Falls Br. Rt 216 N.S. & 216 E.W.
3. Green Fall Br. above Wyassup Br.
4. Green Fall Br. at Rt 216
5. Clarks Falls at Grist Mill Dam
6. Green Fall Br. at Old 184 Crossing (Hopkinton)
7. Pendleton Hill Br. at Browning's Corner
8. Wyassup Br. at Rt. 49
9. Wyassup Br. at Dam
10. Pendleton Hill Br. at Old Cemetery Rd.
11. Gallup Pond at Rt 2 Crossing (Shunock R.)
12. Shunock R. at Hewitt Pond
13. Shunock R. at West Main St. Bridge- N.S. Center
14. Shunock R./Assekonk B.- at parking lot, N.S.
15. Shunock R./Assekonk Br.- at East Main St. Bridge N.S. Center
16. Yawbux Br. at Ryder Road
17. Assekonk Br. at Jeremy Hill
18. Boom Bridge - Pawcatuck R.
19. Pendleton Hill Br. (at gaging station)
20. Culvert Corner Rt 2 and West Main St.
21. Assekonk Br. at Dam
22. Assekonk Br. at Rt 2 crossing
23. Assekonk Br.
24. Shunock R.
25. Shunock R.
26. Shunock R.
27. Culvert, Cedar Ridge-Hickory Lane at Pond Drive
28. Culvert, Cedar Ridge-Hickory Lane at Oak Drive
29. Culvert, Kingswood at extension of Old Colony Road
30. Culvert, Kingswood at Pinecrest-East
31. Culvert, Kingswood at Pinecrest-West
32. Culvert, Kingswood at Ravenswood Dr.
33. Culvert, Kingswood at Old Colony Rd.-West
34. Assekonk Br. at corner parking lot, N.S. Center
35. Assekonk Swamp at Pine Grove
36. Shunock R. at store
37. Shunock R. at I-95 Service Road Culvert
38. Shunock R. at I-95
39. Shunock R. at I-95 - 100 ft up from I-95 Bridge
40. Shunock R. at I-95
41. I-95 Service Road-Catch basin
42. Pawcatuck River at State Line
43. Shunock R. at Rt 49 (Voluntown Road)
44. Lantern Hill Brook

In addition, the major bodies of water in town should be tested. These are: Billings Lake, Blue Lake, Lake of Isles, Lantern Hill Pond, Long Pond, Wyassup Lake, and Spaulding Pond.

The water quality sampling program should be flexible enough to include testing of the following types of ground water:

- . Public water supply well fields subject to the Connecticut Aquifer Protection Act (APA).
- . Other public water supply fields which are not subject to the APA.
- . Community water supply systems.
- . Aquifers suitable and identified for future public water supplies.
- . Areas of town where sewer avoidance is threatened.

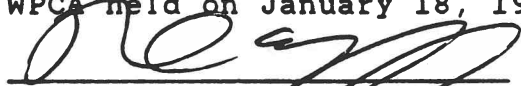
7.0 PERIODIC UPDATE OF WATER POLLUTION CONTROL PLAN


The WPCA recognizes that increased economic development is likely to occur for the next several years. This development will require continued reassessment of the need for sewers and other pollution control measures. The WPCA is also cognizant of the inevitable changes in DEP regulations and policies that will occur as a result of the economic development associated with the Mashantucket Foxwoods Casino and Resort. The WPCA stands ready to respond to these future development and water pollution pressures by:

- . Reviewing the WPCA Plan annually.
- . If changes in the Plan are warranted, publishing an updated Plan on the third Tuesday of January.
- . Meeting as the Chairman of the WPCA deems necessary to deal with water pollution control problems as they may occur from time to time.
- . Establish a regular meeting schedule as the WPCA deems necessary to fulfill its statutory duties.
- . Meet at least annually with DEP personnel to keep abreast of DEP activities and regulatory changes that may affect North Stonington.

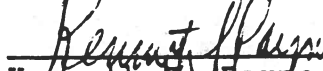
FORMAL ADOPTION


This WPCA Plan was unanimously approved at a meeting of the WPCA held on January 18, 1994.


Richard E. Blodgett, Jr. Chairman



Robert P. Slocum, Vice Chairman



Donald R. Judge, Secretary


Kenneth V. Payne


Harold C. Karsten


John Macina


Everett L. Fontanella


William H. Hescok

DISTRIBUTION LIST

This plan has been distributed to the following:

Planning & Zoning Commission members and alternates
Zoning Board of Appeals members and alternates
Board of Selectman members
Board of Finance
Zoning Enforcement Officer
Town Sanitarian
Town Health Officer
Town Building Official
Inland Wetlands Commission
Economic Development Commission
Town Clerk
Stonington WPCA
Stonington First Selectman
Southeastern Connecticut Regional Planning Agency
Southeastern Connecticut Water Authority
City Manager, Town of Westerly, Rhode Island
Connecticut Commissioner of DEP
Dennis Greci, DEP
Robert Hust, DEP
Attorney Mike Zizka at Pepe & Hazard

Appendix A- Resource Materials & Maps

This list of resource materials represents a compendium of our files, folder by folder and map by map, established in the Selectmen's Vault in the Old Town Hall on subjects pertaining to the deliberations required to prepare a revised plan for the Water Pollution Control Authority. The Selectmen's Secretary has been specifically authorized to reproduce under current guidelines, any such document in these files originated by the Town's Water Pollution Control Authority. Any request for other documentation reproduction must be directed to its originator.

(a). Aquifer Protection Guidelines:

This brochure was prepared by the State of Connecticut to provide a practical and logical extension of basic geological principals to be used to determine necessity and extent of aquifer protection.

(b). Connecticut State Statutes:

Chapter 103: Municipal Sewerage Systems.
Chapter 105: Fire, Sewer and Other Districts.
Chapter 1-5a: Administration.
Chapter 440: Wetlands and Watercourses.
Chapter 446i: Water Resources.
Chapter 446k: Powers and Duties of the Commissioner (Sec. 22a)

(c). Correspondence (Incoming) March 1993- January 1994.

Contains originals or copies of correspondence received by the Authority for the period covered.

(d). Correspondence (Outgoing) March 1993- January 1994.

Contains copies of correspondence directed to another entity by the Authority for the period covered.

(e). Department of Environmental Protection, State of Connecticut:
Copies of letters specially addressing a request from the Water Pollution Control Authority or a particular phase of the requirements within the Town of North Stonington.

Copies of draft regulations being proposed for adoption.

Copies of protection proposals under study for incorporation within the broader concept of aquifer protection.
"Water Quality Standards", 15 May 1992, 68 pp.

(f). Groton:

Construction standards issued to contractors and inspection procedures to be expected through a contract cycle.

System Standards involving an overview of area system to be

added to the present infrastructure.

Usage Regulations pertaining to residential, commercial and industrial limitations on bulk, density, toxicity and other factors need to control the input of sewerage.

(g). Ground Water (Published Guidelines):
Septic Systems and Ground-Water Protection.
Guidelines for Planning and Inspecting Commercial/Industrial Systems.
Criteria for Regulation of On-Site Sewage Treatment.

(h). Hebron WPCA Regulations:

Copy of the regulations and amendments adopted by the Hebron, Connecticut WPCA for the operation of Hebron's sewage system.

(i). Montville:

Copy of the Montville Aquifer Protection Program.

Copy of the Montville Aquifer Toxicity Report.

(j). North Stonington:

Copy of the WPCA 1972 Report.

Copy of the WPCA 1976 Report.

Copy of the WPCA 1976 Supplemental Report.

Related background materials.

(K). Policies Plan for Connecticut:

Draft of the plan for Conservation and Development within Connecticut for the years 1992 through 1997.

(l). Putnam:

Copy of the inter-municipal agreement entered into by the City of Putnam and the Town of Woodstock to accept the flow of sewage from Woodstock.

Copy of the Water and Sewage Ordinance for the City of Putnam.

(m). Regional Sewerage Plan, SCRPA, 1969

(n). State and Federal Brochures:
Agricultural Waste Management.
Flood Plain Management.
Aquifer Protection Area Program.
Nutrient Management.
Erosion and Sediment Control.

- (o). Stonington:
Copy of the Stonington WPCA Regulations.
Copy of the cost estimates prepared by the Stonington WPCA for a buy-in by North Stonington for their sewer system and treatment plant located in the Pawcatuck area.
Copy of a proposed "Inter-Municipal Agreement" between Stonington and North Stonington.
- (p). Westerly Water Works:
Plan drawing of test well casings off 184.
Cross section drawing of test well casings.
- (q). Wood-Pawcatuck Watershed Association:
Antidegradation Policy.

Pawcatuck Watershed Project.
National Resources Facts.
Connecticut Ground-Water Quality.
Connecticut Water Quality Classifications.
Drinking Water, A Community Action Guide.
- (r). North Stonington WPCA:
Copies of the approved minutes of the meetings conducted by the WPCA from March 1993 through January 1994, arranged in inverse order.

Cost estimates for four phase sewage construction.
- (s). Maps:
The following is a list of maps utilized and placed on file during the 1993 deliberations of the North Stonington Water Pollution Control Authority.
1. Analysis and Technology Route 2 Sanitary Sewer Extension, May 1991.
 2. Town of Stonington WPCA, Pawcatuck District, Sanitary Sewer System, December 1984, Revised March 1991.
 3. North Stonington Zoning Map, with WPCA working drafts for proposed Sewer District in the Routes 95, 49, 2 and 184 areas.
 4. Bedrock Geology Map of the Ashaway Quadrangle.
 5. U. S. Geological Survey of Water Resources in South Eastern Connecticut, Aquifer drilling and testing, Mapping of detailed Stratified Drift information, 1971.
 6. Property Owners, draft WPCA worksheet of proposed Sewer District under consideration.
 7. Locational Guide Maps, Connecticut Conservation and Development Policies Plan (1992-1997, May 1992.
 8. U. S. Geological Survey, Ashaway Quadrangle, Topographic Map

(SE N.S.), Revised 1984. Old Mystic Quadrangle (SW N.S.), Revised 1983.

9. Plan showing North Stonington Inn proposed by North Stonington Associates, approved by Planning and Zoning, Revised 11 December 1992.

10. Surficial Geology, U.S. Geological Survey, Ashaway Quadrangle, 1968.

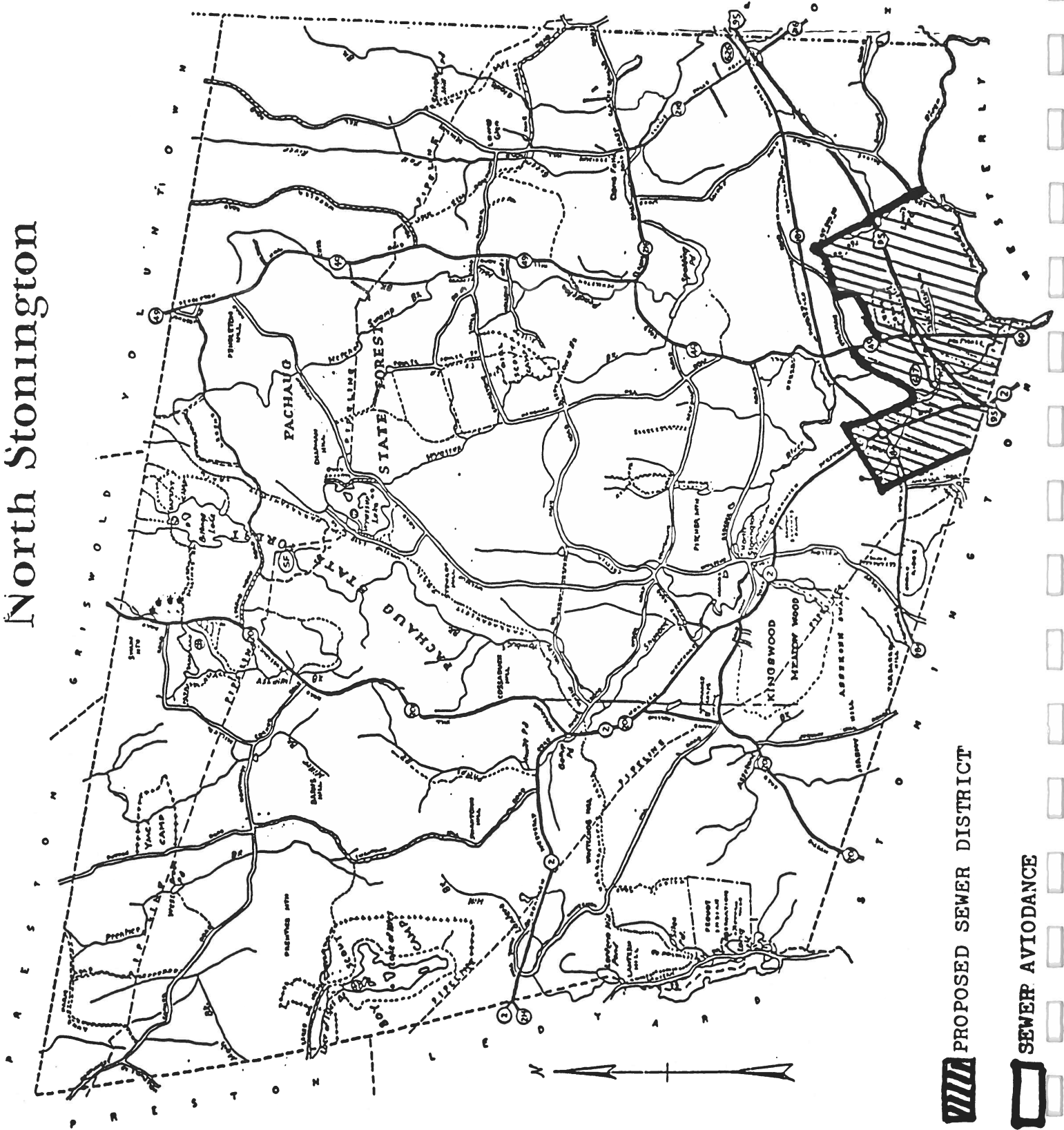
11. Water Quality Classification, Connecticut Department of Environmental Protection, 1987.

12. Ground Water Yields for selected Stratified Drift areas of Connecticut, U. S. Geological Survey, 1986.

13. Ground Water Availability in Connecticut, State Geological Survey and Natural History Survey, 1978.

APPENDIX B

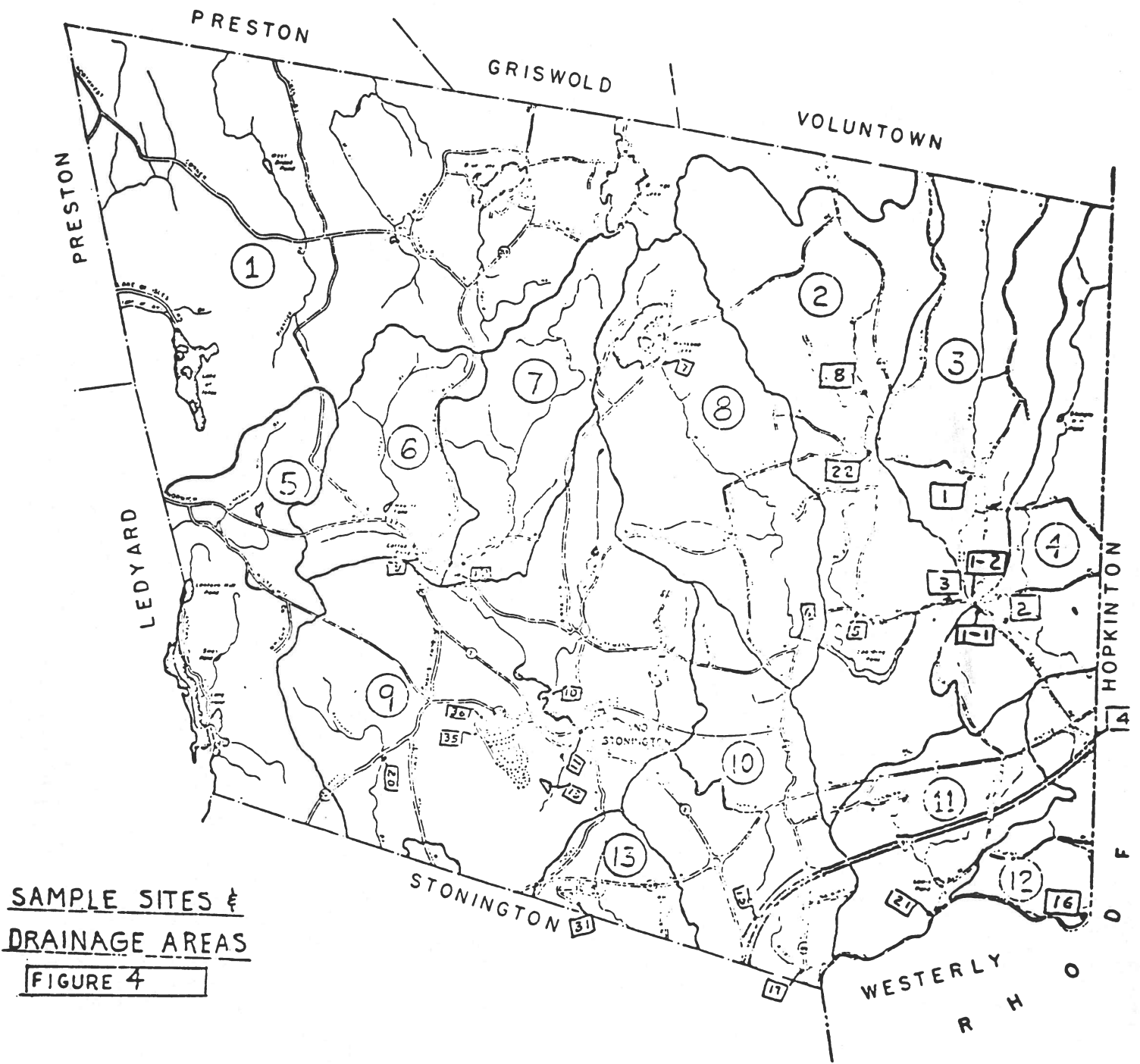
North Stonington



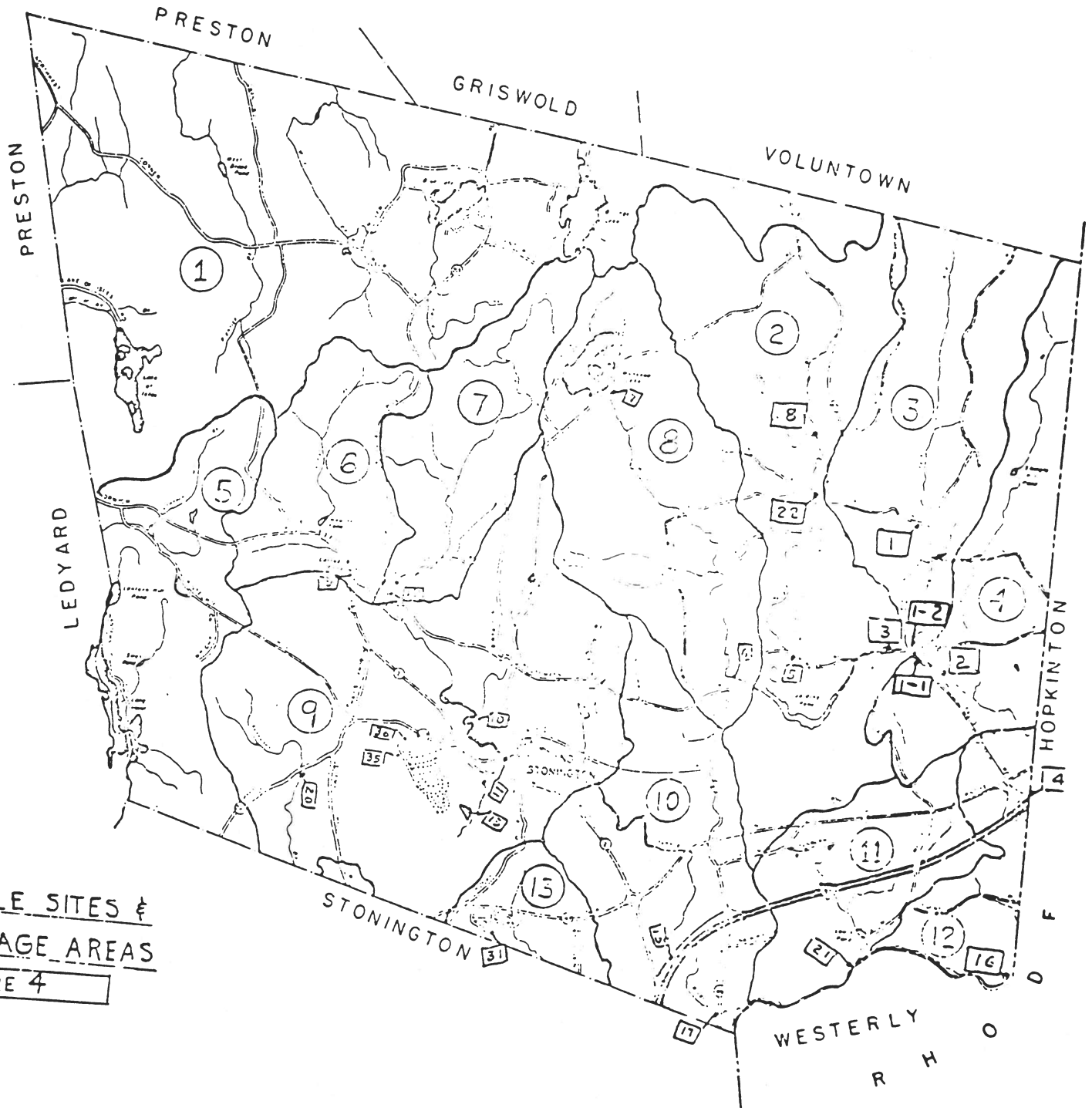
 PROPOSED SEWER DISTRICT

 SEWER AVOIDANCE

APPENDIX B

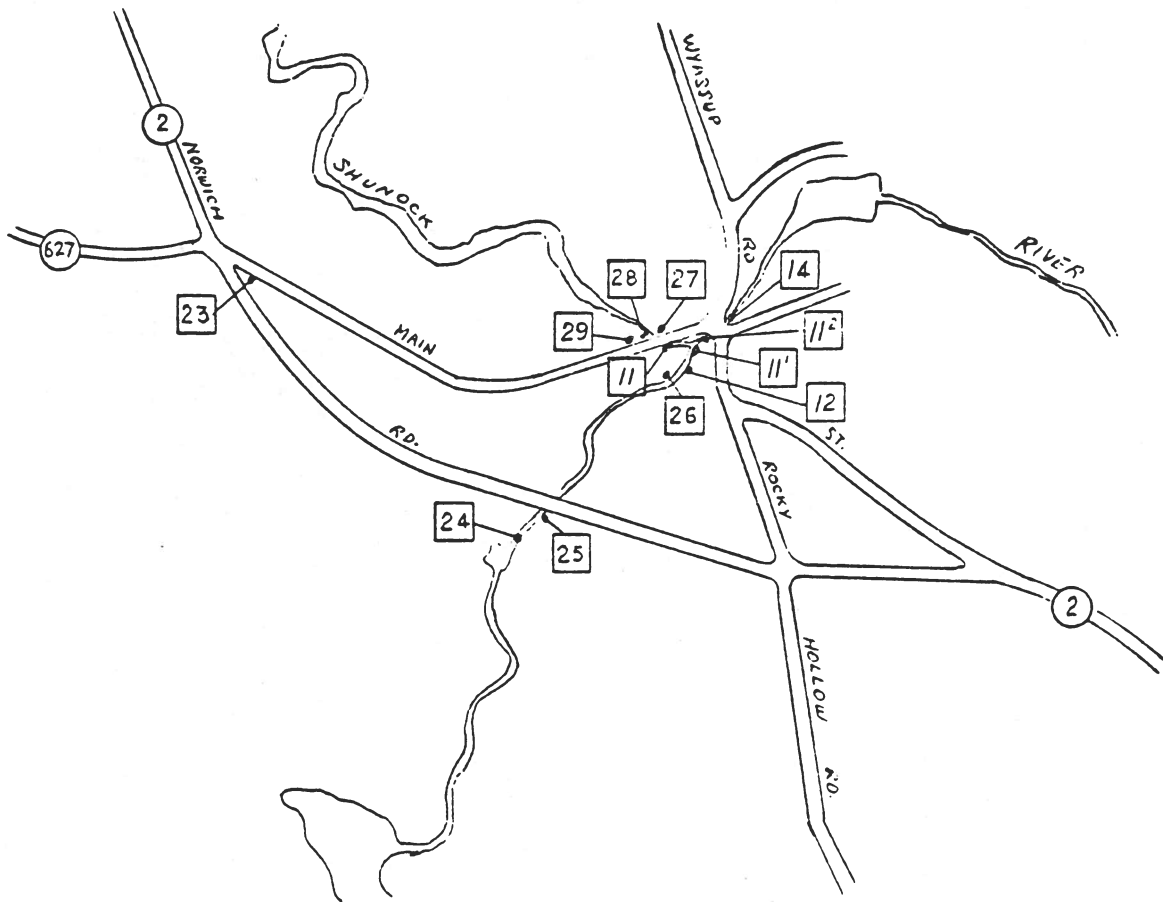


APPENDIX B



SAMPLE SITES &
DRAINAGE AREAS
FIGURE 4

APPENDIX B

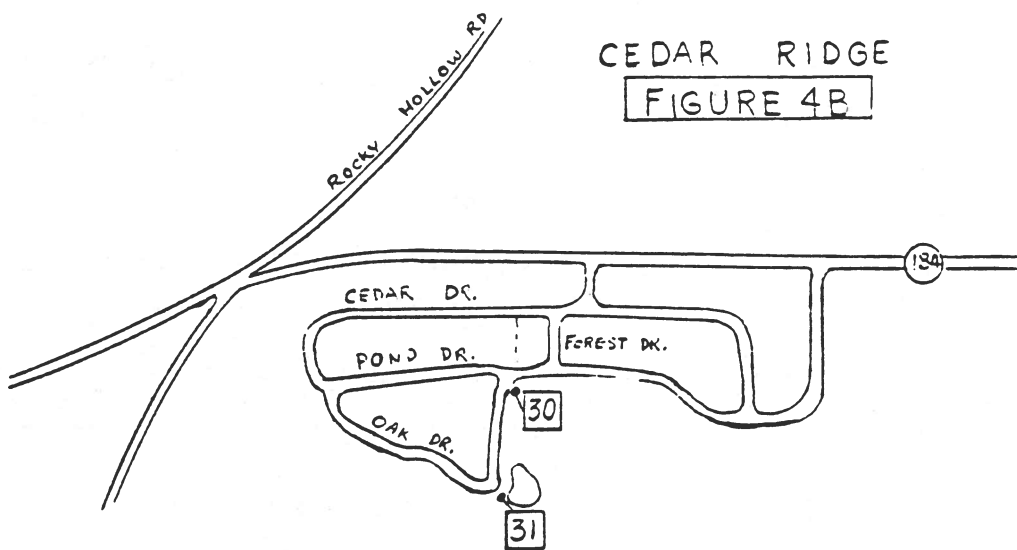


NORTH STONINGTON VILLAGE

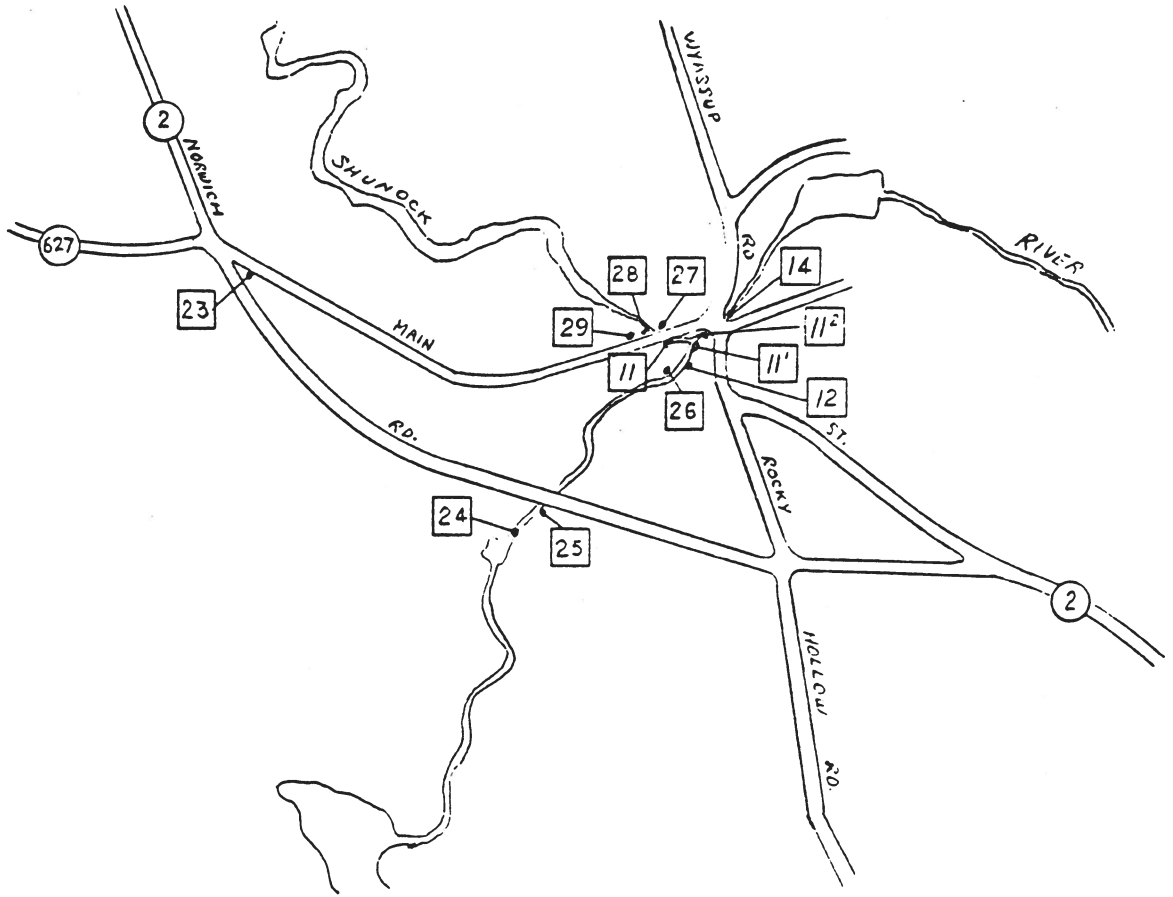
FIGURE 4A

CEDAR RIDGE

FIGURE 4B

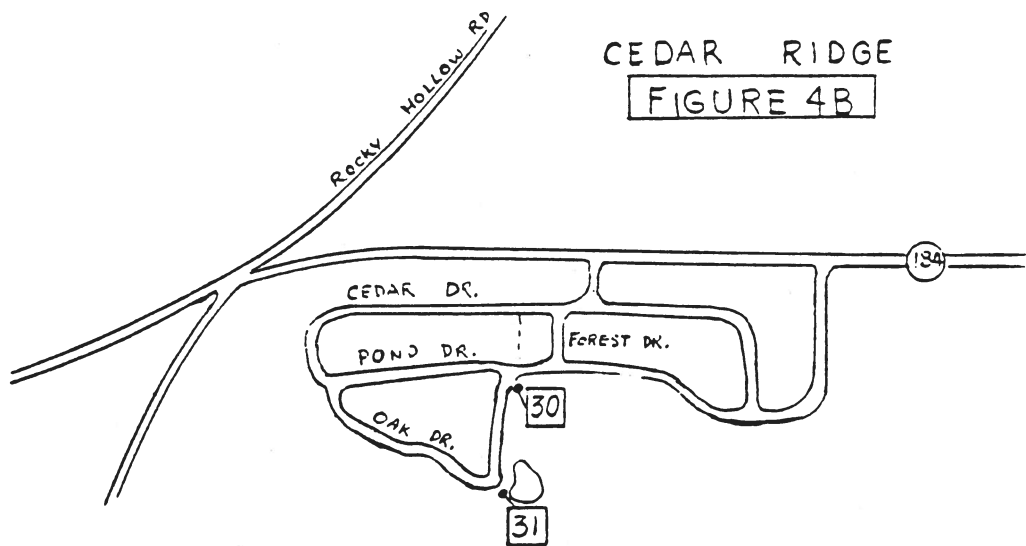


APPENDIX B



NORTH STONINGTON VILLAGE

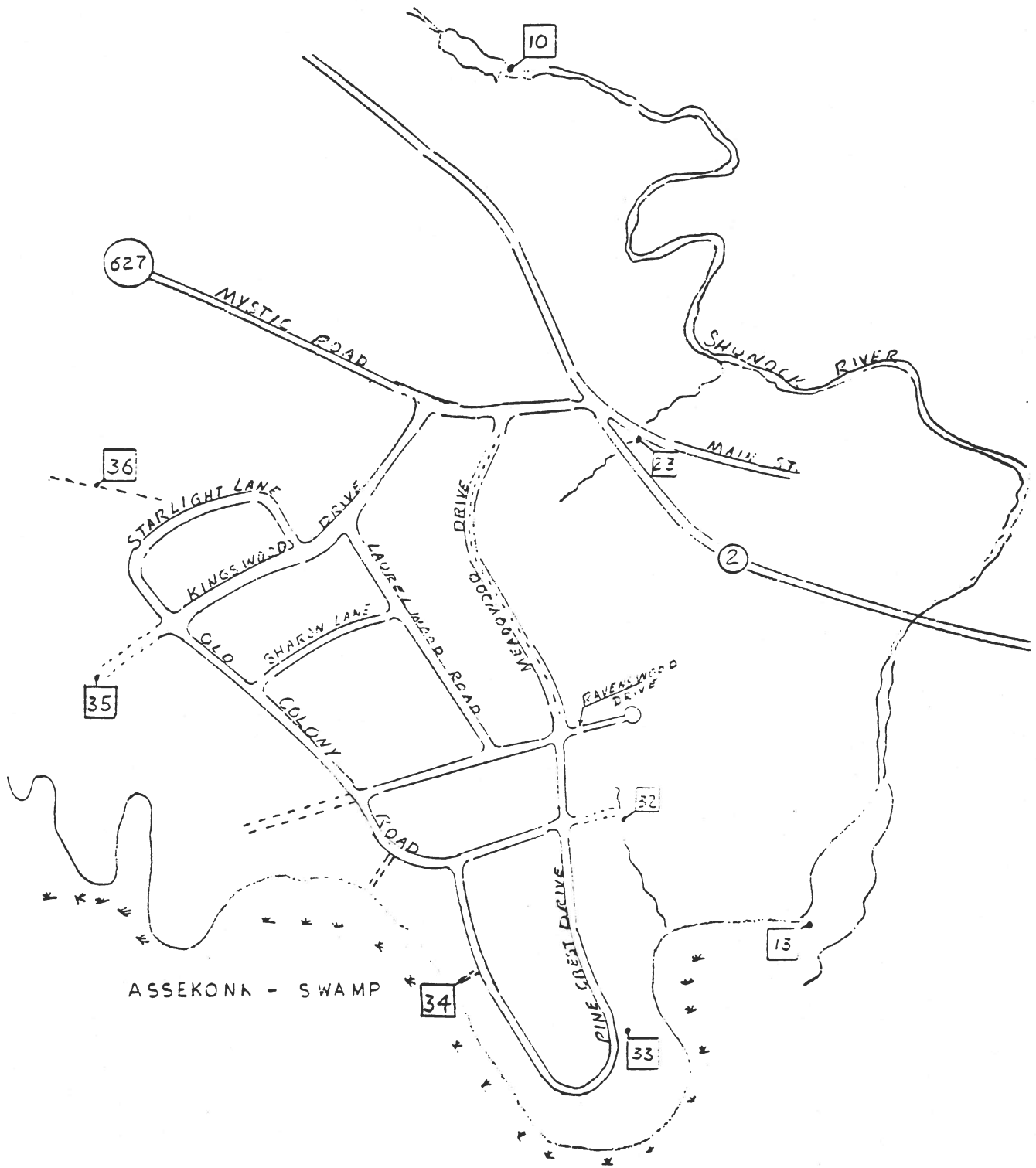
FIGURE 4A



CEDAR RIDGE

FIGURE 4B

APPENDIX B



KINGSWOOD - MEADOWOOD

FIGURE-4C

I-95 REST AREA

FIGURE 4D

