

**WASTEWATER MANAGEMENT STUDY
FOR
ESSEX, CONNECTICUT**

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Executive Summary

This Wastewater Management Study was prepared in response to a CTDEP Order requiring an engineering report to evaluate the current wastewater disposal needs, develop and evaluate alternatives for wastewater disposal and prepare a schedule for implementation of the selected alternative.

This Study was performed over a period of several years. A draft Wastewater Management Plan was submitted to the CTDEP in October 1991. The current report incorporates the information in the 1991 Draft along with new wastewater management evaluations and developments in the following manner:

- Chapters 1-4 address background information and evaluations that formed the basis of the 1991 report. Some material from the 1991 Draft (e.g., Harbor Management and Aquifer Protection) has been relocated to appendices.
- Chapter 5 addresses actions taken between 1991 and 1996.
- Chapter 6 uses the above information as the basis for a recommended plan. An On-Site Wastewater Management Plan is a key element of the recommended plan and is included in this chapter.
- Chapter 7 includes an Environmental Assessment of the recommended plan.

As detailed in Chapters 1-4, wastewater management needs were assessed by reviewing historical performance and physical characteristics of wastewater disposal systems throughout the entire town in order to determine where on-site disposal was and was not likely to be a viable long term wastewater management solution. Historical performance data, including system repairs, pumpout frequency, and recommendations from a 1979 Malcolm Pirnie report, the Town Sanitarian and the Water Pollution Control Authority (WPCA) were considered in developing potential areas of concern. Physical characteristics such as lot size, soil limitations, depth to groundwater, source of drinking water supply, and age of dwelling were considered in developing the 18 final study areas. Walkovers and water quality monitoring were conducted in several areas to gain more information about the effectiveness of on-site wastewater disposal.

Of these 18 study areas, eleven study areas were given the rating of "A", indicating that continued conventional on-site sewage disposal is indicated. Four of the study areas were given the designation of "B" indicating that these areas have some on-site disposal restrictions and should be closely monitored. In the 1991 report, the remaining three areas were given the designation of "C" indicating that they were areas of concern for continued on-site subsurface disposal.

As detailed in Chapter 5, during the next several years, a variety of other wastewater management evaluations and developments occurred, including:

- Two years of quarterly sampling of groundwater quality under Essex Village;
- Consideration of a variety of structural solutions: