Many state and local health departments do not have the resources to develop or purchase software to effectively inventory and manage small wastewater treatment systems in their jurisdictions. USEPA has developed an off-the-shelf user-friendly management tool formatted in Microsoft Access that features web-style buttons, drop-down boxes for data entry, and intuitive use features.

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TWIST

The Wastewater Information System Tool

USEPA's
Onsite and Cluster
Wastewater Treatment System
Data Management Tool

Introduction

There are approximately 23 million onsite and clustered wastewater treatment systems in the US. These facilities are permitted by state and local agencies, which often track site evaluation, system type, and inspection information via paper filing systems. Some states and localities have electronic data systems for logging general information such as owner name and address, permit number, fee paid, etc., but few maintain electronic systems capable of storing even the most basic information regarding system type, design flow, inspection reports, etc.

Several data management systems have been developed over the past few years to track information on permits, service calls, inventory data, and site attributes. But none of the public agency management information systems reviewed incorporate the full set of data elements needed

to generate inventories, map system locations, provide information on system design flows and types, and track inspections or services rendered.

Need for a Locally Based Management Information System

There is a national need for a publicly available, freely circulated computer based management information system that can be used by state and local governments, federal facilities, and others who must manage information on large numbers of decentralized wastewater systems (e.g., private residential communities, resorts, etc.). Important elements of such a system have been developed and tested by various public and private entities. For example, the Buzzards Bay National Estuary Program distributes a privately produced inventory and management system tied to Massachusetts' Title V wastewater program, and other vendors have developed systems to track inventory or service information.

EPA has developed TWIST—The Wastewater Information System Tool—to aid in identifying and capturing important system inventory and service information, and to help standardize management information so data can be easily transferred to other systems. TWIST will help answer key questions for public health and water resource program managers, such as:

- How many systems near drinking water sources have not been maintained?

- Are there systems older than 35 years sited less than 50 ft from the lake shore?

- Which systems require inspection within the next year?

- How many systems of similar types have malfunctioned over the last three years?

TWIST Management Information System

EPA developed TWIST as a comprehensive MIS system with a Microsoft Access database for managing system information. The system accommodates a wide variety of queries, list reports, and mapping applications if users provide relevant data. The system software and training/user information are available for free download and distribution by state and local governments.

Key data elements are grouped under the following headings: General Site Information, Permit Information, Facility Served, Site Evaluation Information, Treatment System Type, Complaints, and Service Reports. The final version was released in the Fall of 2005.