

Request for Professional Environmental and Data Management Services For the Development and Delivery of (or access to) A Web Based Tracking and Management System for a Town Wide System of Individual Septic Disposal Systems

INTRODUCTION

The Town of Charlestown seeks to engage a consulting firm qualified to provide a web based tracking and management system to assist in the evaluation, management and planning of Individual Septic Disposal Systems (ISDS) in the community.

BACKGROUND

Charlestown is a rural coastal community of 41 square miles contiguous with three salt and several fresh water ponds, streams marshes and wetlands. To the south is a barrier beach and coastal outwash plain. North of Route 1 is the terminal moraine followed by a rocky and hilly upland. Soil permeability varies from slow to excessive. High water tables compound the high permeability in the south so that ISDS are frequently in groundwater. Green Hill Pond and the eastern edges of Ninigret and Quonochontaug Ponds suffer from partial to permanent closure to shellfishing due to bacterial pollution. High bacterial counts in local wells have also been variously reported. An additional threat is the significant level of bacteria and nitrogen nutrients from storm water runoff and wildlife. Similar problems (bacteria, phosphorous enrichment from ISDS and wildlife runoff) exist in some of the fresh water ponds north of Route 1. Although all these problems can be loosely classified as "pollution", each ISDS performs differently with time, location, type, use, maintenance and other factors. A powerful, flexible and easy to use tracking and data management system that can store and manipulate a broad range of inputs from ISDS inspectors, Town departments, service providers, environmental and technical data is required to analyze and manage these systems efficiently and effectively.

There are currently 5144 ISDS in town, about 2600 south of Route 1 and the remainder to the north. Approximately 317 of these are cesspools most of which are in the high water table area to the south of Route 1. This area is served by an increasing number of Innovative-Advanced (I/A) systems and a majority of conventional systems. There is one small package plant. Build out projections predict an eventual total of 6500 units. It is estimated that 60 to 80 per cent of both bacterial and nutrient pollution in Green Hill and Ninigret ponds is due to the presence of these onsite septic disposal systems with remainder due to nonpoint sources such as wildlife and storm water.

Recognizing the need to protect public health and the environment, the Town created a Wastewater Management District in 1992 to ensure that ISDS are properly operated, inspected and maintained to prevent malfunctioning. At the

time a 3-year cycle of mandatory pumping was used to control pollution. Over time this shifted to a three-year cycle of inspection, with pumping only if required. The current (May 10, 2004) ordinance #252 made several additional changes:

- Included a change of ownership inspection.
- Added requirement that cesspools be inspected and pumped annually.
- Added a five-year phase-out of cesspools.
- Changed the three-year inspection cycle to one to five years depending on condition and an established pattern of use. Pump-out depends on inspection results with maximum limit of 6 years.
- Require I/A system owners to have a contract with service providers for a minimum term of 1-year to conduct inspections and maintenance.

The increasing complexity of ISDS systems suggests that the Charlestown Wastewater Management Commission (CWMC) explore ISDS database tracking systems and associated data management techniques (including issuing notifications, connection with geographic information systems, tax assessor and building inspector data, etc.) in order to improve efficiency and effectiveness of community functions. That is the purpose of this RFP.

SCOPE OF SERVICES

Technical and Administrative Requirements: The selected web-based ISDS tracking system must be have the ability to:

- 1) Operate from the site of the ISDS being inspected, recording all relevant data and communicating (transferring) such data to a secure central computer managed by or under a contractual service to the contractor, but under the sole responsibility of the contractor. The town shall have the ability to access and download the information at a frequency convenient to town municipal functions (tax assessment, building inspection etc.), search and query the database, create reports and generate mailing material through internet access from the Charlestown Town Hall or other specified site.
- 2) Incorporate information on system siting, design, flow, wastewater strength (total suspended solids, biological oxygen demand, total nitrogen, etc.), operation and maintenance based on the reporting requirements of the “RI Septic System Checkup: The RI Handbook for Inspection and Inspection Report Forms” and any modification of the inspection reporting requirements made by the town of Charlestown.
- 3) Input, store, track and query the database given specific data needs to include information on characteristics, performance, design, designer, installation and installer, component manufacturer, inspections, pump-outs, other routine maintenance, cesspool replacement and other repairs and upgrades, alternative system components, and maintenance provider information. Have the ability to use drop-down lists to specify input.

- 4) Initiate routine notices that are postal ready to notify system owners of time sensitive activities such as inspections, maintenance specific to each system component, annual service contracts, pumping or other requirements under the Towns ordinance.
- 5) Initiate automatic notices to the Town Onsite Wastewater Specialist, where immediate action may be required, such as notices of inspection failure, findings of substandard system or cesspool, lapse of maintenance contract or maintenance provider certification, and notice of non-compliance.
- 6) Amend data input fields, reporting forms, modify search options and create new status reports cost effectively as the Town program is modified.
- 7) Provide database security from loss of data, from intrusion by unauthorized access, power failures, business failures, viruses, worms etc.
 - a) Provide access from any Internet connection (password protected).
 - b) Ensure that frequency of backup storage is adequate.
 - c) Ensure that data accessible in the system is “read only”, or as agreed to by the Onsite Wastewater Management Specialist and the Wastewater Management Commission.
- 8) Access and report records easily, including ability to search across multiple records seeking results.
 - a) Able to quickly locate all failed systems, all ISDS within 100 ft of shoreline, all ISDS due for inspection, all cesspools and I/A systems, etc. In other words provide a sophisticated ability to sort, combine, analyze, print and mail data.
 - b) Able to import and export data and to interface with data from other Town departments such as building /zoning, assessment, planning, public works, administration, GIS, etc.
 - c) Compatible with database programs and software used by the Town such as MS Word and Excel or Access.
 - d) Ease of use by wastewater management inspectors, clerks and others. A tutorial and/or technical support is available to guide new users, etc.
 - e) Capable of utilizing GPS and GIS inputs as available.
 - f) Ability to coordinate ISDS data with watershed data (maps), geological and hydrogeological information, zoning data, etc.
 - g) Ability to add new types of data (grants, loans, finance, property owner issues) as well as methods of sorting and or evaluating.
 - h) Ability to over-ride, manually change, modify data to schedule and monitor tasks, change times of notice mailings, etc., to allow for individual or unique circumstances involving the home owner and/or the inspector, pumper, installer, etc.
 - i) Allow all data fields to accept “added comments

Material Supplied by Contractor

- 1) Contractor to provide necessary training and must supply two complete user manuals for system operations. Manual must include, at a minimum, detailed explanation of all screens, data entry points and reporting processes as well as full explanation for use of any external devices, along with importing and exporting of data to the device. Annual, or when necessary, updates to the manual when changes or upgrades to the system will be supplied.
- 2) Contractor to specify the hardware and software requirements so that Town Hall computers, as well as inspectors, homeowners, and others (designers, installers, manufacturers, service providers, etc.) who may be authorized to access the system can do so efficiently. Is dial up modem connection adequate or is high-speed data line necessary? What are the recommended computer hardware specifications? Etc.
- 3) Contractor must include one-year maintenance warranty and describe the pricing structure, how it is determined and how applied over time. For example, the annual cost of future years maintenance as well as any backup support, on line service, or other services that may be required.
- 4) System upgrading. How frequently is the contractor's tracking program software and hardware upgraded and will new versions automatically preserve all previous data, functions and capabilities, entry fields, comments, reports, etc? Will such services be provided routinely or will there be additional expense?
- 5) Contractor must include a current client list with contact persons for that the Town may freely contact as references. Contractor must include a detailed schedule of implementation (data transfer from existing systems, dates of training, etc.).
- 6) Extent of services provided during start up, initial costs, and maintenance fees should be itemized.
- 7) Extent of subcontractor services including name, location, services provided, security of data and access, terms and conditions of subcontract, potential problems that may affect access, security, etc.
- 8) The Town reserves the right to retain 10% of the total cost of the project, for a period of 90 days after contract completion, to determine the adequacy of the service and that the contractor has adhered to the original agreement.

CONTENTS OF INTEREST AND QUALIFICATIONS

- 1) Letter of Interest: A letter addressed to the Town Administrator that clearly defines the firm's intent, the name, address, phone number and title of the

person to whom the Town Administrator may direct questions about the submission.

- 2) Corporate Qualifications, Experience, Corporate Staffing and Insurance
 - a) An outline of the firm's qualifications to conduct this type of work. Outline the relevant experience of the firm for this type of service. Relate experience to the needs of Charlestown as described in the sections on "Background" and "Scope of Services."
 - b) Project Staffing: Identify the project manager, key personnel and any sub-contractors.
 - c) Insurance requirements:
 - i. Professional liability \$1,000,000.00
 - ii. General liability \$1,000,000.00
 - iii. Workmen's Compensation - Compliance with RI General Laws
 - iv. Automobile Liability \$1,000,000.00
- 3) Schedule: Develop a proposed schedule that includes key goals and milestones and a total time frame to complete the project or to full system utilization.
- 4) Outline any requirements that the Town of Charlestown must meet to begin, carry out and fully operate the on line service.
- 5) Fees: Indicate all licensing fees and any annual or other charges based on extent of use (e.g. number of ISDS served), costs of installation, training etc. Provide a description of options for Town to pay for services.
- 6) Identify any current related contracts or sub-contracts in which the contractor is involved, or will be involved or fully or partly funded by U.S.E.P.A. or other federal agency.

SELECTION CRITERIA
(Relative importance, scale of 1–5)

Diagram of entities (players), activities, roles and services. (1)

Business Stability and Reliability (2)

Length of time in business, length of time in onsite system data tracking services, staffing dedicated for onsite system data tracking, percent of overall business (by staffing, revenue, or hours per week), numbers of clients, three (3) client references.

Comprehensiveness and Costs of Technical Services (4)

Transferring current data into new Tracking System, Onsite - in Charlestown - Training for all Users, Development of “How to...” Instruction Manual for all Users, Access and Availability of technical assistance post start-up. Etc.

Comprehensiveness of Data and Administrative Programming (5)

Tracking of onsite systems, types of data that can be tracked (geographic, hydrogeologic, system type and components, manufacturers, etc., use of drop-down selections by user types, types of reports that can be generated for each type of user, etc. Automated Reporting (warnings, red flags, enforcement actions, follow-ups, anniversary dates, etc.) to Town Onsite Wastewater Specialist and to each type of user the town allows access. Etc. Connectivity with current municipal databases to download/upload information common to the databases.

Ease of Use (5)

Ease and Costs of adding or deleting data fields, reports, tables, pie charts, etc., as a result of changes to town’s inspection forms, new program requirements, or to generate administrative reports in the form of tables, graphs, charts, etc.

Accessibility including Numbers of and types of users that could be permitted to enter system and types of information that can be generated for their use, etc., Ease of entering the system by each user and downloading information by the town, inspectors, designers, state, etc. Procedure for providing new users access to the system and type of information report they can generate, etc. Ease of procedure to generate information-reports for each user on the system, etc.

Data Security and Liability (4)

Primary Contractor’s Service Center Security, including Routine back-up practices and frequency, Power outage-power back-up, Local Fire department response time and distance, System operation back-up, Protection from Internet or on-line electronic computer viruses, worms, access by other contractor clients, etc. Sub-Contractor Services Security, including Length of time in data management and storage business related to the Primary Contractor’s needs, reliability (and reputation, as indicated by primary contractor reference), Routine back-up practices and frequency, Power outage - Power back-up, Protection from Internet or on-line electronic computer viruses, worms, etc.

Lost data Liability of the Primary Contractor and any sub-contractor, including Acts of Nature, equipment or power failure, Internet or on-line electronic computer viruses, worms, etc. Responsibility for data restoration and cost.

Cost, Payments, Conditions and Terms (4)

Initial Set-up Costs to fully establish and operate system including first year operation, connection to municipal database systems, expected costs to 'iron-out' and to maintain system, setting-up new users, giving training/manuals.

Annual costs and terms, Details to include total costs, cost by number of systems, special rates for extended contracts (including option of upfront payment of five year contract to cover initial fee plus use), conditions and terms, Flexibility of Payment Schedules, etc.

Terms of Terminating the Service and the Town's Rights to Obtain all Data in a paper hardcopy and electronic format to be downloaded into common commercial database, such as Microsoft Excel or Lotus 1-2-3.

QUESTIONS

Questions regarding this solicitation can be addressed to Richard J. Sartor, Town Administrator, Town of Charlestown, 4540 South County Trail, Charlestown RI 02813, 401-364-1210.