

# Surface Water Supply Protection Plan: Cohasset, MA



*Aaron River Reservoir*

Lily Pond and the Aaron River Reservoir are the sole sources for drinking water, which service approximately 7,100 people, in the Town of Cohasset. The watershed consists of approximately 9.21 miles, and is located across the communities of Cohasset, Norwell, Hingham, and Scituate. Over the years, a number of studies have been performed, which have looked at potential contamination factors, such as solid waste landfills, oil and hazardous waste releases, septic systems, road salt storage, and roadway run-off, which may be contributing to the contamination of the pond's surface and groundwater.

As a consultant to the Cohasset Board of Water Commissioners, Norfolk Ram Group, LLC (Norfolk) applied for, and was awarded, a Department of Environmental Protection (DEP) grant, in order to develop a Surface Water Supply Protection Plan (SWSPP) for the town. The purpose of the SWSPP was to *prevent, eliminate and control actual and potential sources of contamination within the watershed that could negatively impact the quality of drinking water provided by Lily Pond and the Aaron River Reservoir.*

Through a systematic study and documentation of the watershed, the SWSPP reviewed the watershed, compiling its characteristics, public and land-use impacts, actual and potential threats from specific sites or uses, and non-point sources of pollution. Norfolk's SWSPP developed specific recommendations for watershed and water supply improvements, management practices, and controls, in order to ensure the adequate protection for existing and future uses of the pond. In addition to the engineering study being funded by the DEP grant, the town of Cohasset will derive many long-term benefits from the implementation of their source water protection plan. The benefits derived from increased watershed management include prevention of waterborne diseases, cost savings stemming from lowering filtration and disinfection requirements, improved public

relations and educational outreach, and improved monitoring for the protection and maintenance of Cohasset's water supply.

## Scope of Work

Norfolk completed the following major tasks, in order to aid the Town of Cohasset in monitoring, operating and maintaining their water supply watershed:

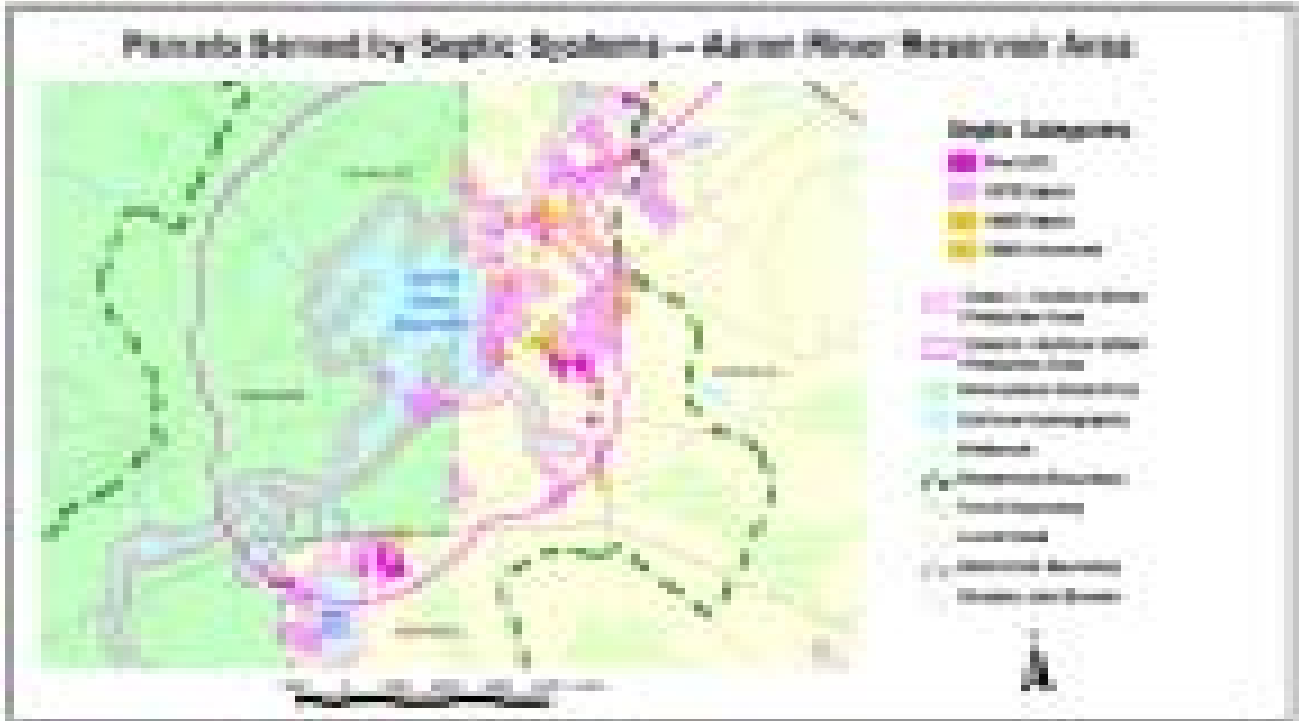
- Established base mapping, and produced various watershed characteristic maps and SWSPP summaries of watershed land use threats and impacts, land use controls and regulatory controls.
- Utilized a customized Geographic Information System (GIS), to not only prepare watershed characteristics mapping, but to also serve as a long-term management tool for recording and monitoring land uses, sources of contamination and critical environmental monitoring points within the watershed.
- Created a long-term sampling plan to examine the contamination within the watershed, based upon reviews of in-lake problems and potential water supply impacts from existing land uses (*i.e.*, spills and releases, waste disposal facilities, the storage of hazardous materials, stormwater run-off, *etc.*)
- Provided a series of prioritized recommendations that the Cohasset Water Commission and other stakeholders could use to manage and improve watershed protection in the future.



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**Figure 2, ArcView Generated Map Depicting Parcels Served by Sewer and Septic Systems in the Aaron River Reservoir**

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**Contact Information:** For more information regarding Norfolk’s work on SWSPPs, or other services, please contact Mark S. Bartlett, P.E. at 508-747-7900 or reach us online at [www.norfolkram.com](http://www.norfolkram.com).

### Norfolk Ram Group Services

Norfolk is an engineering, consulting and project management firm specializing in comprehensive environmental management for industrial and real estate clients, municipal and government agencies, and the military. The company’s capabilities include, environmental site assessments, risk characterizations, remedial investigations and design, and civil/environmental engineering for site development, including water and wastewater services. Norfolk’s primary goal is to provide clients with a full-service commitment, immediate responses, high quality consulting, and cost-effective solutions to engineering and environmental concerns.

### Core Service Areas

- Site Assessment & Remediation
- Brownfields Sites
- Forensic Work
- LSP Services
- 21J Management
- Environmental Permitting
- Civil/Site Development
- Municipal Consulting
- Stormwater Controls & Management
- Air & Wastewater Treatment
- Watershed Management
- Industrial Consulting
- TURA/Waste Minimization



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