

Massachusetts Department of Conservation and Recreation Protects Water Supply with Stormceptor

Project: Quabbin Reservoir

Location: Belchertown, Massachusetts

Owner: Commonwealth of Massachusetts

Designer: Massachusetts Department of Conservation and Recreation (DCR)

Contractor: Warner Bros.

Product: Stormceptor®

Installation Date: June 2012



Quabbin Reservoir is one of the largest man-made public water supplies in the United States and is the largest inland body of water in the Commonwealth of Massachusetts. Built between 1930 and 1939, the reservoir is the primary supply of drinking water to the metropolitan Boston area, servicing nearly 2.2 million people in the Commonwealth. When full, Quabbin holds approximately 412 billion gallons of water.

Protecting the water supply is paramount and the Massachusetts Department of Conservation and Recreation (DCR), Division of Water Supply Protection, is charged as steward of the roughly 81,000 acres of protected lands surrounding the reservoir. The management of these undeveloped tracts of land is important to the preservation of the high quality water of Quabbin Reservoir.

Other important aspects of the reservoir are the passive recreational pursuits offered to visitors of these lands, the protected habitat which allows for unique wildlife opportunities, and the preservation of the historical significance of the communities lost to the original creation of the reservoir. According to the DCR, the management of these undeveloped tracts of land is important to the preservation of the high quality water of Quabbin Reservoir.

One location that is accessed daily is the Quabbin Administration Building and Visitor's Center. The visitor center is staffed and operated approximately 360 days annually, typically serving 60,000 visitors. The staff are busy throughout the school year providing programs to visiting students on topics connected to drinking water, Quabbin history, watershed management, and wildlife. Additionally, the Administration Building serves as the DCR Headquarters facility, housing administrative staff, two ten-stall garages behind the main building for vehicles, maintenance machinery and work areas for upkeep of equipment.

A seaplane hangar and boat ramp facing the water, beneath the roadway in front of the main entrance to the building, was also part of the original building plan. It was expected that the reservoir would be patrolled by amphibious aircraft. While the idea never came to fruition, the hangar now serves as a boat and vehicle storage facility.



In 2012, the need to reconstruct deteriorated paved roads and parking areas in the vicinity of the hangar service area presented a significant opportunity to improve the quality of stormwater being collected and conveyed via the associated drainage collection system.

“Road reconstruction is seen as an opportunity to improve upon and mitigate past stormwater collection and conveyance practices that heralded the efficient delivery and disposal of storm water to receiving water bodies,” stated Scott Campbell, P.E., DCR Regional Engineer.

A Stormceptor treatment unit was selected by DCR Engineers because of the high pollutant removal efficiency offered in the small footprint demanded by the site. The Stormceptor’s ability to provide oil/water separation and hydrocarbon spill containment capabilities was highly desired due to the close proximity of the existing outfall to the reservoir. DCR easily implemented the Stormceptor STC 900 as a retrofit stormwater quality device and spill protection. In the case of a very large accidental spill, for extra precaution to protect the drinking water supply the DCR implemented an emergency shut-off in the downstream piping.

The Stormceptor was manufactured by Rinker Materials – Concrete Pipe Division, in Westfield, Massachusetts. Installation was completed by Warner Brothers, LLC of Sunderland, Massachusetts under contract with the Commonwealth.

