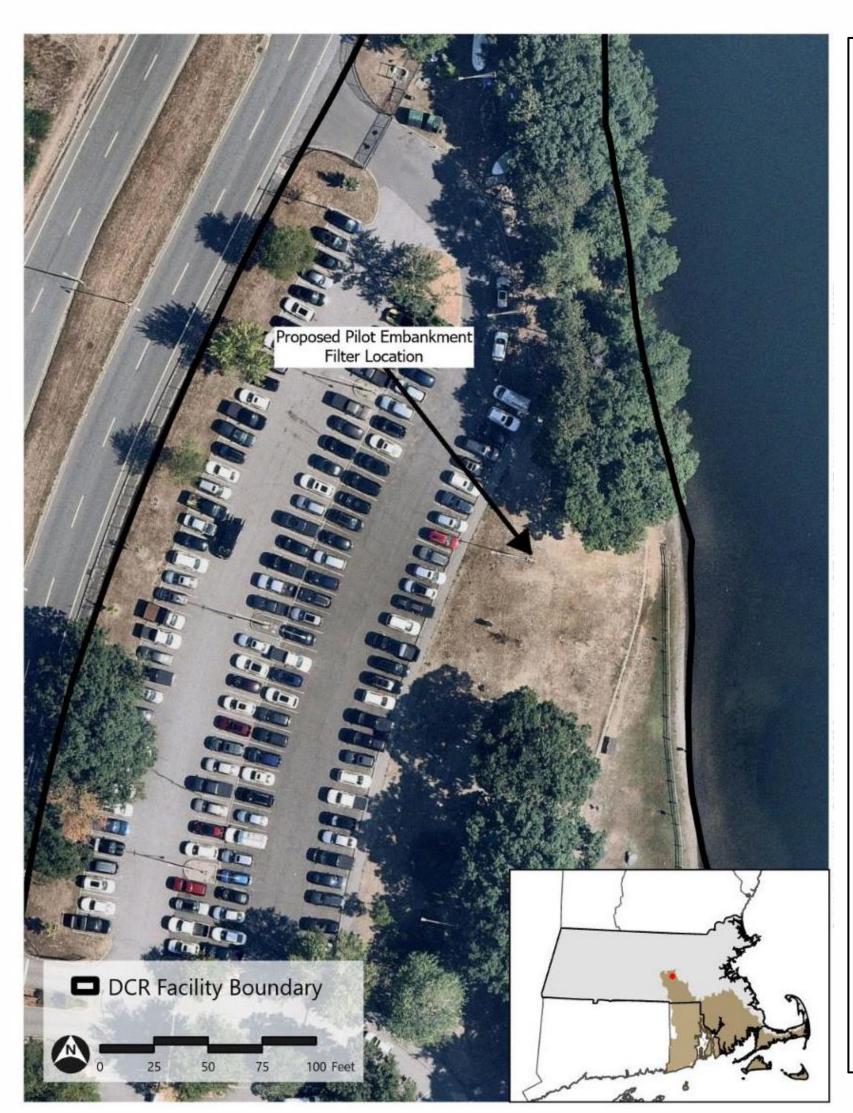
## Piloting an "embankment filter" as a stormwater treatment practice for steep slopes





Past Efforts **Future Efforts Proposed Project** Outcomes Blackstone River Watershed Needs Assessment Project Report (Narraganset Bay Estuary Program) Improved water Ongoing inspection quality in Lake and maintenance. **Embankment Filter** Quinsigamond, Blackstone River Potential to monitor Design and Blackstone River, Impairments & Lake treatment. Construction at Lake Narragansett Bay Quinsigamond TMDL Quinsigamond DCR Phosphorus Improved water Control Plan for Lake quality across Quinsigamond DCR properties Massachusetts Design Specifications & Pollutant Crediting Methodology mproved water **SNEP Stormwater** quality across Retrofit Manual SNEP region, New dditional stormwate **England** and control measure SNEP webinar beyond available for to inform implementation in **EPA Pollutant Removal** areas currently considered too community ncreased availabl constrained for solutions to treatment stormwater challenges Blackstone River Blackstone Watershed Plaque stormwater treatment

Detail of a media filter drain, which is similar to this pilot practice, taken from the 2014 WSDOT Highway Runoff Manual.

Detail of a media filter drain, which is similar to this pilot practice, taken from the 2014 WSDOT Existing Embankment

EXISTING EMBANKMENT

EXISTING EMBANKMENT



Proposed site for pilot filter in Quinsigamond State Park, Worcester, MA.

Impact diagram created for the SWIG grant application. Yellow boxes indicate the grant-funded activities, while blue boxes show past and future efforts connected to these activities.

Google Street View image of proposed filter location and parking lot to be treated.

This project will consist of pilot design and installation of an "embankment filter," a filtering stormwater control measure that can be installed on slopes that are typically considered too constrained for conventional stormwater controls. We will develop implementation documents including standard details, materials and construction specifications, and methods for estimating pollutant reduction using the EPA BMP Performance Curves. These will be shared with the greater New England stormwater community so this measure can be more readily incorporated in other locations. This project will have local impact, improving water quality at a public swimming beach plagued by beach closures and providing education to the environmental justice populations that use this beach. The project will also have regional impact by providing a new tool to designers working on constrained sites, thereby increasing the capacity of MS4 permittees and other stakeholders to complete projects.







