

## **Report on Recharge Practices Finished**

REPORT CONFIRMS POSITIVE IMPACT OF RECHARGE SYSTEMS

January 28, 2011

FOR IMMEDIATE RELEASE

A new report, "The Impact of Stormwater Recharge Practices on Boston Groundwater Elevations", prepared by Professor Richard Vogel and Doctoral Student Brian Thomas, both from the Department of Civil and Environmental Engineering at Tufts University, demonstrates the positive impact on groundwater levels from the rainwater recharge systems mandated in Boston's Groundwater Conservation Overlay District. The report was funded by the Boston Groundwater Trust, an entity established by the Boston City Council to monitor groundwater levels in sections of Boston where the integrity of building foundations is threatened by low groundwater levels and to make recommendations for solving the problem.

The study focused on the Back Bay and used data from the Trust's extensive network of groundwater observation wells to perform a statistical analysis of groundwater levels taken both before and after recharge systems were installed and at different distances from those wells. The researchers' analysis included a series of variables that were found to have an impact on groundwater levels. They were able to create a model that demonstrated the impact of each of these variables, including the size of, and distance from, a recharge system. Through testing random groups of the Trust's 234 observation wells in the area over differing time periods, they were able to validate the model, proving that the 24 recharge systems installed in the area so far have a statistically significant impact on neighborhood groundwater levels. They were further able to demonstrate that the impact of multiple recharge systems is additive, so that increasing the concentration of systems in an area will lead to further increases in groundwater levels.

The entire report and the PowerPoint presentation given to the Trustees of the Boston Groundwater Trust at their January 27 meeting will be posted to the Trust's website, [www.bostongroundwater.org](http://www.bostongroundwater.org). For more information, contact the Trust's Executive Director, Elliott Laffer, at 617-859-8439 or [elaffer@bgwt.org](mailto:elaffer@bgwt.org).