



Cumberland County Soil & Water Conservation District

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Cumberland County Soil & Water Conservation District (CCSWCD) is a recognized and respected leader fostering the ideals of conservation through public outreach, education and on-the-ground implementation. One of our showcase projects is the Long Creek Watershed Restoration Project in Portland, Scarborough, South Portland, and Westbrook, Maine, where we are managing the implementation of the *Long Creek Watershed Management Plan*.

In 2009 the United States Environmental Protection Agency exercised its Residual Designation Authority (RDA) in the Long Creek Watershed. The RDA provision requires stormwater permitting for any landowner with one or more acres of impervious cover. This unique regulatory situation allows the District to evaluate water quality solutions based on site-specific data and implement nontraditional approaches to water quality improvement as it sees fit. The Long Creek Watershed Management District landowners pay a set fee per acre of impervious surface, and the fees are used to implement the permit requirements including construction, maintenance, pollution prevention, monitoring and administration.

Cumberland County Soil & Water Conservation District contracted J.K. Barbalace, Inc. to develop and maintain a web-based data system to track and manage the Long Creek landowner acreages, stormwater infrastructure, and program fees and credits. Ken has worked closely with the Executive Director of the Long Creek Watershed Management District as well as the CCSWCD engineer and project scientist on every step of database development and implementation. CCSWCD has found Ken's flexibility, insight, and ability to work with multiple staff members to be a tremendous asset to this project.

CCSWCD has been using the database system since 2010, and the scope of the system has grown considerably since its inception. The Long Creek Property Owner Database now has the following functionality:

- Classification and tracking of parcel acreages for 431 properties within the watershed.
- Active management of program fees for 115 landowners who have elected to participate in the Long Creek General Permit.
- Generate and print fee estimates and other selected parcel information for landowners (mailings completed twice per year).
- Stormwater infrastructure inspections for 115 parcels. We completed 288 inspections in 2011.
- Generate and print PDF stormwater infrastructure inspection reports.
- Ability to email infrastructure inspection cover letters and reports to property owners, engineers, and other stakeholders.
- Ability to geolocate parcels, subcatchments, and stormwater infrastructure using Google Earth™ technology.

Based on the success of the Long Creek Watershed Database, CCSWCD retained J.K. Barbalace, Inc. to expand the Long Creek Watershed Database model to include the ability to add and track properties in multiple watersheds to support another project. This added functionality is set to be rolled out to the, the Interlocal Stormwater Working Group (ISWG), a group of 14 municipalities in southern Maine who are regulated under the State of Maine Municipal Separate Stormwater Sewer System (MS4) requirements. As part of their permit requirements, the ISWG communities are required to inspect and track regulated private stormwater infrastructure within their municipalities. The inspection database

Assist and educate the public to promote stewardship of soil and water resources.



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will be used by those municipalities who do not have an inspection tracking system in place, and at least one municipality is considering incorporating the database functionality into its current system.

We have enjoyed many benefits of the web-based parcel and inspection tracking system. Most notably:

- **Efficiency:** We can cut our inspection hours by approximately 30%. Rather than documenting inspections on a paper form and returning to the office to enter the findings into a database form or spreadsheet, we are able to record our findings in the web database in the field. If desired, we can email the inspection report from the field as well saving time and postage.
- **Resource conservation:** We can save paper by using the onboard email functions, saving reports in PDF format, upload supporting documentation (such as site plans and reports) to the database, and by filtering tabular outputs to target groups.
- **Accuracy:** We are able to minimize data entry errors by directly entering observations while in the field rather than relying on memory, notes, and photographs back in the office.
- **Cost effectiveness:** We have reduced postage, paper, and staff time costs throughout the course of the project. We are able to provide a quality product to our clients at a low cost by using electronic delivery and web-based tracking systems.

CCSWCD has found J.K. Barbalace, Inc. to be very accommodating and willing to work within our staff abilities and cost structure. On the occasions where we have required programming changes or report deliverables, the work product has been exemplary and completed on time and within (frequently less than the quoted) budget. CCSWCD is looking forward to continuing our partnership with J.K. Barbalace, Inc. on this database project.

Sincerely yours,

Kate McDonald
Project Scientist