Long Creek Watershed Management District and Restoration Project - A Case Study in Remediation of an Urban Impaired Stream and a Model for Watershed Management and Governance

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Since early 2009, Perkins Thompson has been assisting public and private landowners to create the Long Creek Watershed Management District to implement a restoration plan to address an "urban impaired stream" in southern Maine. The collaborative development and implementation of the Long Creek Watershed Management Plan can serve as a model for remediation of other urban impaired streams in commercial and industrial areas, and as a better alternative to the more common and costly model of litigation and enforcement. The background, process and organizational structure of this 'case study' model are provided below.

Regulatory Background: under the Federal Clean Water Act, EPA can require landowners to remediate streams designated as "urban impaired streams" due to stormwater run-off.

The Federal Clean Water Act (CWA) regulates discharges of pollutants from "point sources" into navigable waters of the United States. The CWA regulates end-of-pipe discharges, and National Pollutant Discharge Elimination System (NPDES) permits are issued to dischargers to require compliance with CWA water quality standards. The initial focus of CWA administration and enforcement was on industrial and Publicly Owned Treatment Works (POTW) outfalls. More recently, the focus has been on runoff from streets, construction sites, parking lots and other "wet-weather" sources.

Congress amended the CWA to require the U.S. Environmental Protection Agency (EPA) to regulate certain stormwater discharges, and EPA Regional Administrators have Residual Designation Authority (RDA) to designate additional stormwater discharges on a case-by-case basis for NPDES permitting (where the Regional Administrator determines that a discharge contributes to a violation of a water quality standard). The CWA requires each state to prepare a list of impaired streams (a Â§303 (d) list). EPA can use RDA to designate impaired streams as "urban impaired streams" and to require their remediation.

Factual Background: The EPA has designated Long Creek as an urban impaired stream and requires watershed remediation efforts.

Long Creek is a meandering stream located within the four municipalities of Portland, South Portland, Scarborough and Westbrook, Maine. With four primary branches and seven subwatersheds, its watershed covers a 3.45 sq. mile area. Over 100 public (cities, towns, State agencies) and private parties own property in the Long Creek Watershed.

Before the late 1960s, the area had been forest and farm land. Clark's Pond, to which Long Creek contributes, provided swimming and fishing opportunities. Now, however, the area has become a center for commercial development. Urban land cover increased by 36% between 1952 and 1995. With its roads (Maine Turnpike and I-295), Portland Jetport, buildings and parking lots, the watershed includes much impervious surface. Runoff from the area has led to several violations of Maine Class B and C Waters quality standards: 1) low dissolved oxygen 2) high suspended solids; 3) high levels of heavy metals such as zinc, lead, and copper; and 4) non-attainment for Maine Class B and C water quality standards. Also, high water temperature and polycyclic aromatic hydrocarbons (PAHs) from petroleum compounds contribute to impairment of Long Creek water quality. Long Creek is on Maine's Â§ 303(d) list of impaired streams.

In Response to the Potential for Litigation, Property Owners in the Long Creek Watershed Created a Collaborative Management Plan and have Implemented It:

1. A Stormwater Management Plan:

Faced with the possibility of regulatory action by EPA or citizen suit under the CWA if nothing was done to address the impaired Long Creek, the City of South Portland and several landowners, assisted by several non-profit organizations and with administrative and technical support from Cumberland County Soil & Water Conservation District, employed a collaborative process to create a coordinated stormwater management plan for watershed and stream remediation.

First, they hired a facilitator to help organize meetings among landowners, non-profit groups and the Maine Department of Environmental Protection (DEP). From these meetings, a collaborative effort called the "Long Creek Restoration Project" resulted.

Second, Restoration Project members donated funds to hire consultant engineers and scientists to sample the area, to inventory environmental problems and to develop a "Long Creek Watershed Management Plan" to restore the watershed by construction, installation and improvement of Best Management Practices (BMPs) to achieve compliance with CWA and Maine water quality standards and classifications.

Third, after discussion and refinement of the Long Creek Watershed Management Plan, Restoration Project members finalized the Plan in July 2009 and thereafter obtained DEP and EPA approval for it.

The Long Creek Watershed Management Plan sets out an environmentally responsible and cost-effective plan for restoration of the watershed. It incorporates several components - structural and nonstructural BMPs - including stream bank and in-stream restoration; new and improved BMPs that serve areas, rather than individual properties (detention basins, soil filters, and vegetated swales to collect and treat stormwater, pavement shading with trees and vegetation to reduce stormwater temperature); "Good Housekeeping" (better and more frequent pavement sweeping and storm drain maintenance, use of calcium magnesium acetate to treat roads in

winter); and education and local land use planning revisions to minimize future adverse impacts. It identifies watershed "priority catchments" and within these, offers three tiers of recommendations, with Tier 1 being retrofit opportunities with very good cost-benefit ratios, likely to provide significant reduction in polluted stormwater discharge; Tier 2 providing average cost-benefit ratios and Tier 3 providing lower-than-average cost-benefit ratios. The intent of the Management Plan is to complete all Tier 1 projects and to monitor water quality results before turning to Tier 2 and/or 3. The total cost of implementation of the Management Plan is estimated at $14 million, and the length of time to reach water quality standards is estimated at 10 years.

2. An Interlocal Agreement:

As Restoration Project members worked on the Management Plan, they also began to consider a governing structure to coordinate the efforts of public and private landowners to implement the Management Plan. Perkins Thompson, representing Cumberland County Soil & Water Conservation District, and working with the landowners, non-profit groups and DEP, helped Restoration Project members examine their options and to draft an Interlocal Agreement among the four municipalities that forms the framework for implementation of the Management Plan.

The Interlocal Agreement establishes the Long Creek Watershed Management District (LCWMD), which is overseen by a Board of Directors consisting of public and private landowner representatives, non-profit organizations and representatives of participating State agencies. Through this Agreement, the four municipalities delegate specific authority to the quasi-municipal District.

3. A Non-Profit Corporation:

Perkins Thompson incorporated LCWMD as a non-profit corporation so that the entity has clear authority to enter into contracts and to conduct business necessary to implement the Management Plan.

4. Authorizing Legislation:

Perkins Thompson worked with DEP and with others to help draft legislation that specifically recognized this use of interlocal agreement authority. The legislation was enacted by the Maine Legislature as an emergency measure in 2010 (PL 2009, c. 506).

5. A Participating Landowner Agreement:

The last step in implementation of the Management Plan was for landowners to enter into agreements with LCWMD to pay the costs of implementation. Perkins Thompson worked with all parties to prepare a master Participating Landowner Agreement (PLA) for each landowner's signature. Participating Landowners also sign a Notice of Intent under the DEP General Permit,

and under the PLA agree to pay annual assessments that start at $3,000 dollars per acre of impervious area with direct discharge.

Advantages to the Participating Landowners in Collaborating to Develop and Implement a Watershed Management Plan:

In addition to avoiding the cost and delay that accompanies litigation and enforcement actions, Participating Landowners in the Long Creek Watershed most likely will see real savings by choosing to implement the Management Plan. DEP regulations offer Long Creek Watershed landowners two options -- sign the PLA to become a Participating Landowner and file the General Permit Notice of Intent with DEP, or apply to DEP for an individual permit, which requires compliance with State stormwater rules within two years. Participating Landowners' annual assessments to LCWMD are estimated to be 1/3 to 1/2 less than the cost of the alternative of applying for individual permits from DEP and meeting stormwater regulations.