



Models for Governance, Management, Maintenance and Financing

Stormwater management programs usually start small, stemming from a need to meet NPDES permit regulations or the requirements of other water quality programs. In some cases, stormwater programs have spun off from other departments such as wastewater management, planning, or public works and evolve from service-oriented utilities into a community's lead water quality group. Initially, stormwater programs often have a limited role, focusing on permit compliance and reviewing and approving individual stormwater management BMPs at development sites. As they grow and mature, these programs tend to take a broader, more holistic approach to integrate water quality treatment into landscape features and maximize watershed and community benefits. Mature programs require long-term planning and a stable funding source for capital projects, maintenance, and administration.

Where does stormwater fit into a municipal government's structure?

Municipalities come in all shapes and sizes – no two are a like. Stormwater and water quality are relatively new programs relative to municipal governments, so these tasks are often performed or managed by existing departments. There is no “right answer” to the question of where stormwater responsibilities should lie. Below are several approaches to municipal stormwater governance with advantages and disadvantages of each:

Public Works

Municipal maintenance departments oversee a community's infrastructure and can mobilize crews to inspect and perform maintenance on stormwater BMPs. Public works typically is not involved in zoning and planning and doesn't provide input into how BMPs should be implemented in new development.

Planning or Community Development

Many municipalities will establish their stormwater program in the planning department because they are best suited to oversee construction and land development activities. Staff are trained in zoning and site plan review and are well-versed in integrating stormwater management and drainage with aesthetics, public amenities, safety, and other development concerns. Planning departments do not typically employ crews for inspection and maintenance of stormwater features.

Water or Wastewater Utility

In some communities, stormwater is addressed as part of the water utility department, particularly when the municipality owns its own water/wastewater infrastructure (i.e., it is not under regional or private control). Utility departments oversee drainage infrastructure and ensure that BMPs are in place to prevent system surcharges and pollution. Utilities have crews who can perform inspections and maintenance, and they are involved in plan review for new and redevelopments, so they can ensure that stormwater issues are addressed. Utility engineers may tend toward engineered, piped solutions over more natural drainage systems, although that philosophy is rapidly changing as more natural approaches have been tested and proven reliable.

Environmental Services

Sometimes stormwater programs are incorporated into an environmental services department that oversees solid waste and recycling as well as other environmental initiatives such as energy efficiency and watershed protection. These departments usually incorporate public education and outreach into their projects and are well-versed in developing educational messages and engaging the public. These departments are not always as involved in planning and zoning and don't necessarily drive new development and redevelopment decision-making.

Clearly, interdepartmental coordination is essential for a holistic stormwater management program. Many communities have formed stormwater program steering committees comprised of municipal staff, elected officials, the public, and other stakeholders to guide policymaking (see the [Portland Case Study](#)).

What should be the focus of my stormwater program?

Cities, towns, and counties have their own unique characteristics that will drive which type of stormwater management should be emphasized. Communities with established developments and older infrastructure might focus on inspecting, maintaining, upgrading, and retrofitting existing infrastructure, mobilizing public-works-style crews with assistance from the planning department to ensure that redevelopment projects have a net-positive effect on stormwater, water resources, and community amenities. Cities that are rapidly developing and converting rural areas to urban and suburban land uses might want to emphasize construction and new development aspects of their stormwater management program because land use and site development decisions made today will have a lasting effect on natural resources and quality of life.

What funding mechanisms are available?

There are five main categories of funding mechanisms: general funds, bonds, impact fees, special assessments, and stormwater utilities.

General Funds

Funding stormwater programs through general municipal revenues is a traditional means of financing and offers a stable source of revenue. However, stormwater program priorities must compete for limited funds with other municipal priorities (e.g., public safety, education) and departments (e.g., fire, police, health). Budgets typically are negotiated annually, so funding levels can vary from year to year.

Bonds

Capital and operation and maintenance costs can be financed by issuing general obligation bonds or revenue bonds. Bonds usually require voter approval and are subject to ceilings. Bonds are repayable from fees charged for services, general funds, etc.

Impact Fees

Municipalities can assess a fee that developers must pay for each new project. The cost of the fee is dependent on the impact of the project on infrastructure (e.g., new facilities or additional capacity or service needed). Funds collected are typically used for infrastructure projects. Developers typically pass these costs on to the property owner.

Special Assessments and Tax Districts

These assessments, also called local improvement districts, are best in cases where stormwater projects, studies, or maintenance benefit a particular portion of the community (a neighborhood or

commercial area, for instance). Only those benefiting from the project will pay. Monies can be collected through a property tax assessment, development fee, or user fee. Voters typically need to approve the creation of a special assessment or tax district.

Stormwater Utilities and User Fees

Stormwater utilities offer a stable and dedicated revenue source in which property owners pay to use the municipal drainage system. The rate structure can be based on land use, impervious cover, property value, or a variety of other measures. Some fees are based on square footage while others are assessed per parcel. Typically, fees collected are used solely for storm drainage projects, maintenance, and program administration. Utilities are usually established by ordinance (to authorize the utility and establish a rate structure).

Funding mechanisms cannot be created in a vacuum. Much work is needed to determine an equitable rate structure that adequately estimates expected program costs. See the [City of Bellevue's](#) experiences in establishing the nation's first stormwater utility.

When property owners are being charged separately for stormwater-related services, it is important to offer ways in which they can reduce their fee by reducing the amount of stormwater generated (source controls) or reducing the amount of stormwater and pollutants entering the storm drain system (treatment controls).

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Case studies cited above:

- [Bellevue, WA](#)
- [Portland, OR](#)