



Integrated Planning in Action

Determining Requirements and Drivers

EPA's [Integrated Municipal Stormwater and Wastewater Planning Approach Framework](#) helps municipalities meet clean water goals while prioritizing infrastructure investments with the greatest water quality improvements and community benefits. The Framework lays out a comprehensive, yet flexible planning process based on a set of overarching principles. EPA created a series of fact sheets—including this one—to inform municipalities interested in integrated planning.


As the nation faces population growth, aging infrastructure, limited resources, and increasingly complex water quality issues, communities need new approaches to plan for and invest in infrastructure improvements. Municipalities managing wastewater treatment facilities (WWTFs), sanitary sewers, and stormwater infrastructure typically prioritize their investments. Focusing on each infrastructure need individually could cause a municipality to not focus on addressing its most serious water quality issues first.



This fact sheet describes ways for a municipality to identify requirements and drivers as part of Element 1 of the Framework (see "[The Basics](#)" for more information). The outcomes of these actions should be summarized in a municipality's integrated plan.

Identify Clean Water Act (CWA) requirements.

The goal of integrated planning is to identify and consider all CWA requirements so that a community can address the highest-priority water quality needs first. A municipality should identify and characterize its CWA requirements—both existing and anticipated—from permits, total maximum daily loads, waste load allocations (which inform future permit limits), enforcement orders, and/or consent decrees. Integrated planning can encompass collection systems, WWTFs, and stormwater systems. Integrated planning means considering the CWA requirements for all these systems together: for example, stormwater best management practices, WWTF effluent limits, combined sewer overflow (CSO) reduction requirements, stormwater standards, or sanitary sewer overflow prohibitions.



“ Don't limit yourself and don't limit your goals. Shoot for something that's very comprehensive...That usually makes it more complicated, but we didn't realize the benefits of integrated planning until we did look at all of the challenges for our region. ”

—Jim Pletl, Director of Water Quality,
Hampton Roads Sanitation District

While taking all these requirements into account, a municipality should create a schedule for meeting them. Integrated planning may allow municipalities to identify opportunities to request revisions of their timeframes as long as they result in the same or better water quality improvements. A municipality may replace or postpone some projects if it can show that others are at least as effective, subject to approval by the permitting authority. For example, conventional gray infrastructure that is used to store wastewater

flows in heavy rain might be replaced or supplemented with green infrastructure projects that have equivalent or more reductions of infiltration and inflow into the collection system. Prioritizing projects that reduce infiltration and inflow could also decrease the needed treatment capacity at the WWTF, thereby potentially freeing up resources for other projects.



Having a complete inventory of CWA requirements can also help a municipality determine which requirements and drivers to consider when assessing its financial health.


Identify other infrastructure requirements and drivers.

The municipality should also identify other water quality and human health requirements/drivers that call for investment and community resources. These might include protecting source waters, maintaining water supply, or improving infrastructure resilience by protecting high-risk assets such as pump stations from the impacts of climate change (e.g., winterizing or installing cooling systems to protect infrastructure from extreme temperatures). Because of the public health and financial implications of these drivers, the municipality may find them relevant when choosing an alternative and developing an affordable project sequence.

Identify communities with environmental justice concerns.

Economic challenges in the community can drive water quality and public health concerns. Such challenges are location-specific and should be considered during plan development to reduce the burden on residents who are already struggling financially. A municipality's planning team should identify low-income and overburdened parts of the community early in the planning process to mitigate impacts during project selection and when determining how to finance integrated planning projects.

Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. A municipality's planning team can use a tool such as EPA's Environmental Justice Screening Tool ([EJSCREEN](#)) to identify communities with potential environmental justice concerns. The team should then direct engagement with residents of those communities to help them get involved early in the planning process and ensure they have the same protection from environmental and health hazards as other communities.



“ Obviously, the city has a myriad of Clean Water Act obligations that it needs to address, as well as state regulations. And the ratepayers and the city are responsible for paying for all of those, not just CSOs. So with our collection system here, it's old. It has a bunch of issues. And we felt that it was appropriate to prioritize all of those into a common plan and spread our resources around accordingly versus just focusing on CSOs alone. ”

—Shawn Syde, City Engineer,
City of New Bedford

Identify areas and facilities with special environmental sensitivity.

A municipality should also identify sensitive environmental areas such as waterbodies that provide drinking water, waters that allow swimming, national heritage sites, wildlife areas, and water with critical habitat (e.g., wetlands, natural habitat) to ensure that these areas are protected and enhanced whenever possible. Community members may also be interested in protecting other valuable public spaces (e.g., trails, parks) and recreation areas. A municipality's planning, parks, transportation, and health departments could have valuable sources of information on environmental sensitivity—such as source water protection plans, wetland maps, and open space plans—that may connect to an integrated planning process.

Identify CWA
Requirements

Identify Other
Requirements and Drivers

Identify Communities
with Environmental
Justice Concerns

Identify Areas and
Facilities with Special
Environmental Sensitivity



Riverfront Park with Memorial Bridge in the background.
Photo courtesy of Jaimye Bartak, SWSC.