



Public Outreach for Integrated Wastewater and Stormwater Planning



United States
Environmental Protection
Agency

Office of Wastewater
Management

August 2017
EPA 830-R-17-003



ACKNOWLEDGMENTS

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This report was developed under EPA Contracts EP-C-11-009 and EP-C-16-003.

Cover photos: Barry Tanning, Tetra Tech (top left, top right)

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Many communities face complex challenges operating their wastewater and stormwater infrastructure, including meeting Clean Water Act (CWA) obligations under financial constraints. Communities with multiple CWA obligations for their wastewater treatment plants, sewer systems and stormwater infrastructure must prioritize their investments. In addition, they must evaluate different approaches and options for improving their systems, including gray, green and data infrastructure investments.

Integrated planning is the process of systematically identifying and prioritizing actions and projects to meet CWA obligations. EPA released the [Integrated Municipal Stormwater and Wastewater Planning Approach Framework](#)¹ to provide guidance on developing integrated plans. The framework identifies the operating principles and essential elements of an integrated plan. It also encourages communities to work with stakeholders to identify and evaluate options to respond to CWA requirements.

This report focuses on the essential element of public outreach in the integrated planning process. Two case studies illustrate this process. The information in this report complements the information provided in the companion document *Prioritizing Wastewater and Stormwater Projects Using Stakeholder Input* (EPA 830-R-17-002), available at <https://www.epa.gov/npdes/npdes-integrated-planning-documents>.

What's in This Document?

Section 1 provides an overview of public outreach and its purpose in the context of integrated planning.

Section 2 presents approaches for conducting outreach activities to support integrated planning.

Section 3 lists useful resources for public outreach to stormwater and wastewater planning stakeholders.

Section 4 provides case studies of public outreach before and during the integrated planning process, as conducted in Burlington, Vermont, and Onondaga County, New York.

¹ For more information, visit <http://www.epa.gov/npdes/integrated-planning-municipal-stormwater-and-wastewater>.

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PUBLIC OUTREACH IN INTEGRATED PLANNING: OVERVIEW AND PURPOSE

Public outreach is an essential part of the integrated planning process. Outreach allows municipalities to:

- Keep the public informed and engaged regarding agency activities.
- Communicate the value of the services that stakeholders receive.
- Tap into a reservoir of local knowledge and experience to build better programs.
- Create public buy-in for new or required infrastructure investment expenditures.
- Identify contentious, “showstopper” issues before they become obstacles.

Outreach activities generally focus on building awareness, providing educational information and motivating action.

Outreach also opens channels of communication so that municipalities can consider stakeholder views in the development, implementation, evaluation and modification of the integrated plan. Stakeholders often need a wide range of technical and other information on specific collection, treatment, regulatory and other issues in order to provide useful input on how projects and future activities should be shaped.



Engaging key stakeholders is vital to understanding what's important to the local community.

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APPROACHES FOR CONDUCTING OUTREACH ACTIVITIES

Outreach approaches should take into account the characteristics of the stakeholder audiences, priorities and messages to be communicated, and appropriate dissemination mechanisms. Understanding stakeholder needs might require some research (e.g., focus groups, surveys) on stakeholders' perceptions of current agency efforts, their values regarding potential future actions, and how they view costs versus benefits when it comes to water resources management.

3.1 Exploring the Characteristics of Stakeholder Audiences

Communication needs are community-specific and depend on the following considerations:

Who are the relevant community stakeholders?

In general, stakeholders can include other government agencies in the community (e.g., planning, public works), representatives from the business community, environmental and conservation groups, neighborhood associations, disadvantaged or low-income communities, and local educational institutions.

How much do they know about the issues?

An integrated stormwater and wastewater plan has many moving parts. In most cases, it will be necessary to provide orientation and education for stakeholders on the topics addressed in the plan.

What channels of communication are appropriate? Communication mechanisms are likely to vary depending on the stakeholder group engaged. For example, emailed information or updates might be appropriate for other government agencies and organized public/private sector groups, but may not be as effective for neighborhood associations or disadvantaged

groups. Communication channels are highly varied, and can include meetings, news media articles, websites, social networking, newsletters and other venues.

How can the views of others be considered in the planning process and during implementation of the plan? Planners have a variety of tools for gathering and considering stakeholder views, such as focus groups, online polls or surveys, feedback from stakeholders at community meetings, and input from specially convened multi-stakeholder meetings.

3.2 Communicating with Stakeholders on Integrated Planning Topics

Communicating with stakeholders and soliciting their input about water quality issues can be a complex task. Planning that considers stakeholder input is very much a two-way interaction, not a one-way dispensing of information. The knowledge, perceptions and values of stakeholders play a large role in how they will view planning approaches and evaluate proposed projects. Allocating the time and resources to cultivate this sort of bilateral communication, mutual understanding and education is vital to the planning process.

3.3 Educating Stakeholders

Stakeholders often need clear information and education on issues connected to the planning process. For example, communities can provide outreach to orient groups on:

- Applicable use designations and water quality criteria for the receiving water(s).

- Stressors and sources associated with any waterbody impairments or threats.
- The operational history and current issues associated with the wastewater treatment plant(s).
- The permit requirements, infrastructure and activities of the stormwater program.

Providing information on these topics fosters a common understanding on the past history, current status and future challenges faced in the community and watershed.

3.4 Building on the Experience and Expertise of Existing Programs

Stormwater and wastewater programs often have existing outreach initiatives that can be leveraged to support an integrated planning effort.

Stormwater programs, for example, might have an established outreach program to raise awareness of sanitary sewer overflows and other non-stormwater discharges to waterbodies, as well as the impacts to surface waters from polluted stormwater runoff. Other common stormwater program outreach material typically covers keeping leaves, litter, waste and other materials out of the storm drains and picking up and properly disposing of pet waste. Wastewater collection and treatment programs might conduct outreach to targeted groups on technical challenges (e.g., industrial pretreatment program; fats, oil and grease programs) or construction activities (e.g., major sewer infrastructure projects).

Bringing these existing outreach efforts together under an integrated planning framework can help municipalities make the most of their experience; resources; and engineering, technical and field operations capabilities.

3.5 Continuing the Stakeholder Involvement Process

Outreach is an ongoing process, and it is important to continue to execute an outreach strategy even after a plan is developed. During the implementation phase of an integrated plan, communities should communicate information relevant to project and initiative status, as well as bring to light any challenges encountered or overcome during the process. A continuing outreach approach will keep lines of communication open with stakeholders and provide opportunities for meaningful input that can benefit the evolution of the integrated plan and its implementation. Keeping a finger on the pulse of stakeholders and the public can also help identify early warning signs for issues that might emerge as new projects and programs are started.



The Onondaga Earth Corps is an established public engagement group that involves local youth in activities such as building and maintaining stormwater infiltration facilities around Syracuse, New York. *Barry Tanning, Tetra Tech*

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RESOURCES FOR PUBLIC OUTREACH

The following EPA resources provide information for planning and conducting public outreach and engagement activities to support integrated wastewater and stormwater planning.

[Getting in Step: A Guide for Conducting Watershed Outreach Campaigns](#) (EPA 841-B-10-002) provides an organized, structured approach for communicating with stakeholders. The approach is based on:

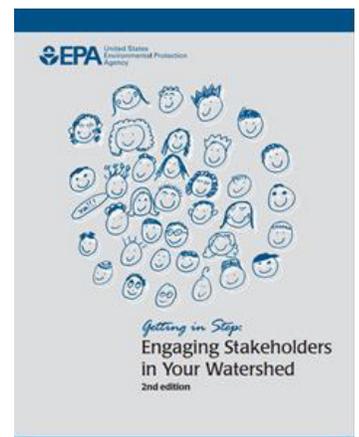
- Defining the driving forces, goals and objectives of the outreach effort.
- Identifying and analyzing the target audience.
- Creating a message that supports the objective and resonates with the audience.
- Packaging the message for distribution to the target audience.
- Distributing the message.
- Evaluating results.

[Getting in Step: Engaging Stakeholders in Your Watershed](#) (EPA 841-B-11-001) provides tools to effectively engage stakeholders to restore and maintain healthy environmental conditions through community support and cooperative action. It presents guidance on:

- Stakeholders and watershed management.
- Getting started.
- Outreach and communication tools.
- Building the stakeholder group.
- Keeping the ball rolling.
- Beyond the stakeholder group.
- Resources for more information.



EPA's guide for conducting public outreach and educational activities is widely used to support a variety of regulatory and non-regulatory programs.



This guide describes how stakeholder involvement enhances communication, cooperation and shared responsibility.

5.1 City of Burlington, Vermont

5.1.1 Background

Burlington is the largest municipality in Vermont, with a population of 42,000. It is located on the shores of Lake Champlain.

The city operates three wastewater treatment plants (WWTPs). The National Pollutant Discharge Elimination System (NPDES) permits for each of the three WWTPs provide phosphorus effluent limitations, with the north and east plants currently set at 0.8 milligrams per liter and the main plant set at 0.6 milligrams per liter. These limits are dictated by a local total maximum daily load (TMDL) for phosphorus.

Most of the community is served by combined sewers, which convey both wastewater and stormwater. There were efforts in the 1980s and during 2010–2012 to eliminate and/or bring many of the combined sewer overflow (CSO) discharge locations into compliance with the Vermont CSO policy. The city currently has only a few remaining CSO outfalls. Basement backups have been on the rise recently due to increasing frequency of intense storms.

Burlington operates a municipal separate storm sewer system (MS4) in portions of the city that are not connected to the combined sewer system. The current NPDES permit for discharges from the MS4 requires the city to develop and implement restoration plans for stormwater-impaired watersheds to maintain compliance with a bacterial TMDL wasteload allocation for Englesby Brook, a tributary to Lake Champlain. Further, EPA recently revised the Lake Champlain phosphorus TMDL, which will result in more stringent regulatory requirements for Burlington.



Burlington has both separate and combined sewer areas.
City of Burlington

The city has created a stormwater utility that provides a sustainable funding source for stormwater management; it expects substantial rate to meet the revised Lake Champlain TMDL and provide further program enhancements.

Going into the integrated planning process, the city was aware that a primary focus of the integrated plan would be phosphorus reduction at the Main Plant WWTP.

5.1.2 Public Outreach Activities

Burlington developed an outreach plan to 1) raise awareness and educate the public about the possibility of developing an integrated plan and 2) collect stakeholders' views on water quality, wastewater treatment and stormwater management.

The outreach and involvement plan was implemented through a tiered approach that targeted different activities to different stakeholder groups (see Table 1 for details). Highlights from the tiered activities included:

- Distribution of information through a webinar, in-person presentations, website postings and other venues.
- Convening of two stakeholder groups.
- Presentation of an informational webinar for the public and targeted stakeholders.
- Solicitation of stakeholder input via an online poll targeting the general public and neighborhood groups.
- Solicitation of stakeholder input through a facilitated meeting of internal and external stakeholder group representatives.
- A meeting with city officials to present the stakeholder input and discuss next steps.

The stakeholder input was used to develop a wastewater/stormwater project evaluation tool, which is discussed in more detail in the report *Prioritizing Wastewater and Stormwater Projects Using Stakeholder Input*.



Stakeholder meeting in Burlington. Identifying, orienting and soliciting input from stakeholders enriches the planning process. *Barry Tanning, Tetra Tech*

The City of Burlington reached out to a wide variety of stakeholders, including:

- BLUE(r)
- Burlington Board of Health
- Burlington Community Economic Development Office
- Burlington Conservation Board
- Burlington Department of Planning and Zoning
- Burlington Department of Public Works
- Burlington Planning Commission
- Burlington Public Works Commission
- Champlain College
- Conservation Law Foundation
- ECHO Lake Aquarium and Science Center, Leahy Center for Lake Champlain
- Lake Champlain Chamber of Commerce
- Lake Champlain Committee
- Lake Champlain Sea Grant
- Private consultants
- State Representative
- Vermont Department of Environmental Conservation, Watershed Management Division
- Vermont State Legislators

Table 1. Outreach Plan for Integrated Planning in Burlington, Vermont

	Audience	Activities	Score
INITIAL OUTREACH	General public All groups and partners	Website on project (FAQs, etc.) Mass email to all groups and partners News media coverage of stormwater issues and overall project Webinar on multi-criteria decision-making	Late April-June
TIER 1 OUTREACH	Neighborhood planning associations General public	Online poll to 1) ascertain knowledge of stormwater issues and 2) prioritize general wastewater, stormwater and water quality issues (flooding, basement backups, sewer overflows, clean lakes, etc.). City-hosted tours of Main WWTP and stormwater green infrastructure	Late June
INTERMEDIATE OUTREACH	General public All groups and partners	Community TV feature—interview and webinar re-broadcast Feature in Front Porch Forum (online network for Vermont residents) News media coverage of online poll results and project activities Ongoing connections to webinar and poll via social media—Front Porch Forum, Twitter and Facebook	July-August
TIER 2 OUTREACH	<p>NGOs:</p> <ul style="list-style-type: none"> • Vermont Natural Resources Council • Conservation Law Foundation • Lake Champlain International • Lake Champlain Committee • Lake Champlain Basin Program • VATS <p>City of Burlington:</p> <ul style="list-style-type: none"> • Department of Planning/Zoning • Planning Commission • Community and Economic Development Office • Department of Parks and Recreation • Burlington Conservation Commission • Transportation, Energy and Utilities Committee • City Council • Public Works Commission • Mayor’s office/Chief Financial Officer • Department of Public Works 	Meeting on project evaluation parameters and how they might be used Stormwater orientation Online criteria prioritization and weighting poll	September
TIER 3 OUTREACH	<ul style="list-style-type: none"> • City of Burlington Public Works Commission • City of Burlington Department of Public Works • Vermont Department of Environmental Conservation • EPA Region 1 	Meeting on finalizing and using project evaluation criteria (input used to finalize project evaluation criteria and apply them to capital and other projects)	October-November

5.2 Onondaga County, New York

5.2.1 Background

Onondaga Lake is the receiving water for most stormwater and wastewater discharges in New York's Onondaga County. Once known as one of the most polluted lakes in North America, Onondaga Lake is now on the road to recovery.

Over the past 20 years, the Onondaga Lake Partnership, made up of local, state and federal partners, has worked to improve the water quality of the lake. Its activities have included improving wastewater treatment at the main Metropolitan WWTP; reducing CSOs; improving management of industrial facilities; cleaning up hazardous waste sites; installing groundwater separation barriers; restoring targeted shoreline and aquatic habitat areas; and ensuring better management of polluted runoff from urban, residential and agricultural areas. About 95 percent of CSO flows have been eliminated. In addition, the county's landmark "Save the Rain" program has funded more than 175 green infrastructure projects over the past six years.

Current pollutant sources include sediment from mudboils,² stormwater impacts from urbanized areas, nutrient runoff from agricultural operations, remaining CSOs, remediation of remaining waste sites, and effluent quality at the main Metropolitan WWTP.

5.2.2 Public Outreach Activities

Onondaga County began exploring an integrated planning approach in 2014 with robust stakeholder input. The county opted for a focused outreach and involvement approach due to the size of the jurisdiction and the number of issues at play.

The county conducted phone interviews to seek input from key stakeholders. Those contacted included the staff of the Save the Rain program,



Green roof in the combined sewer area of downtown Syracuse. A wide range of stormwater projects in this area have reduced CSO overflow events and volumes in recent years. *Barry Tanning, Tetra Tech*

the director of the Central New York Stormwater Coalition, the conservationist from the Onondaga County Soil and Water Conservation District, and the deputy commissioner of Onondaga County Department of Water Environment Protection (OCDWEP). County staff also conducted outreach activities within OCDWEP and with other stakeholders. Information collected from these interviews was used to identify and refine the list of project evaluation criteria and to assess the potential scope of the integrated planning effort.

In addition, two meetings were held with Onondaga County stakeholders. A "representatives forum" was attended by 21 people from public, private and tribal organizations representing a wide range of water resource management interests. This forum provided an orientation to integrated planning, what it might encompass, and what criteria might be used to evaluate potential future projects. The agenda included a summary of water quality issues in Onondaga County, an overview of current wastewater and stormwater management activities, a review of the integrated planning framework, and two breakout sessions to discuss prioritizing and weighing potential project evaluation criteria.

An "agencies forum" was also held for local, state and federal agency staff. Meeting attendees included staff from OCDWEP, the Onondaga County Office of the Environment, the Syracuse/Onondaga County Planning Agency, EPA

² Mudboils are composed of water, liquefied sediments and dissolved mineral salts that bubble up through vents in the Earth's surface due to localized land subsidence and persistent groundwater pressure.

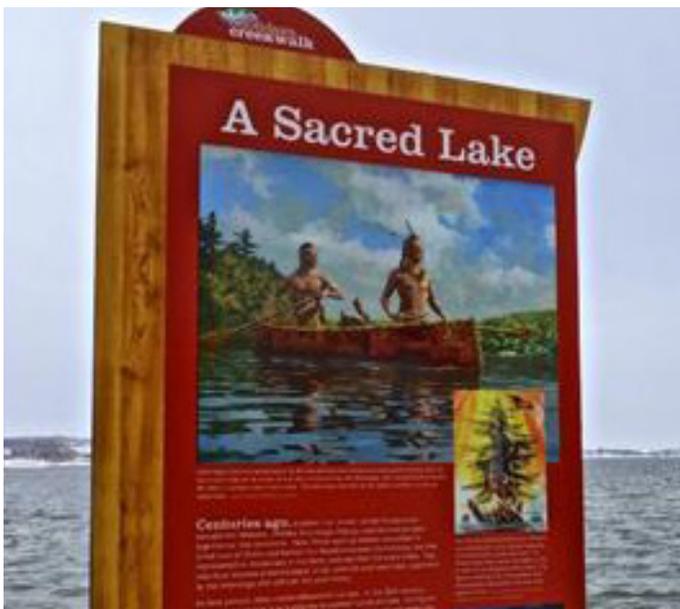
Headquarters, EPA Region 2, and the New York State Department of Environmental Conservation (Headquarters and Region 7).

The attendees discussed activities that might be included in the scope of an integrated wastewater and stormwater plan for the county, such as:

- Major upgrades to existing wastewater treatment plants.
- Continued efforts to reduce stormwater volume in the combined sewer area.
- Support for stormwater treatment in the MS4 areas.
- Integration of stormwater management activities by the multiple MS4s in the county.
- Extension of Save the Rain grants to farm sector sediment and nutrient control practices.

Discussions focused on recommending potential adjustments to the phosphorus TMDL to allow more flexibility for nutrient trading. Further discussion addressed the potential for a more integrated, consistent approach to stormwater management in the county.

The latter part of the agencies forum was devoted to prioritizing weighting factors and assigning them to criteria that might be used in future evaluations of wastewater, stormwater and water resource management projects in the county. More information on using evaluation criteria to rank projects, including the process used in Onondaga County, is provided in the report *Prioritizing Wastewater and Stormwater Projects Using Stakeholder Input*.



Onondaga Lake is the birthplace of the Haudenosaunee (Iroquois) confederacy, and home to one of its five original tribes. *Onondaga County*



Onondaga County "Save the Rain" storm drain inlet medallion in downtown Syracuse. *Barry Tanning, Tetra Tech*