Integrated Planning in Action

Permitting Authority Toolkit
Module 1: Informing

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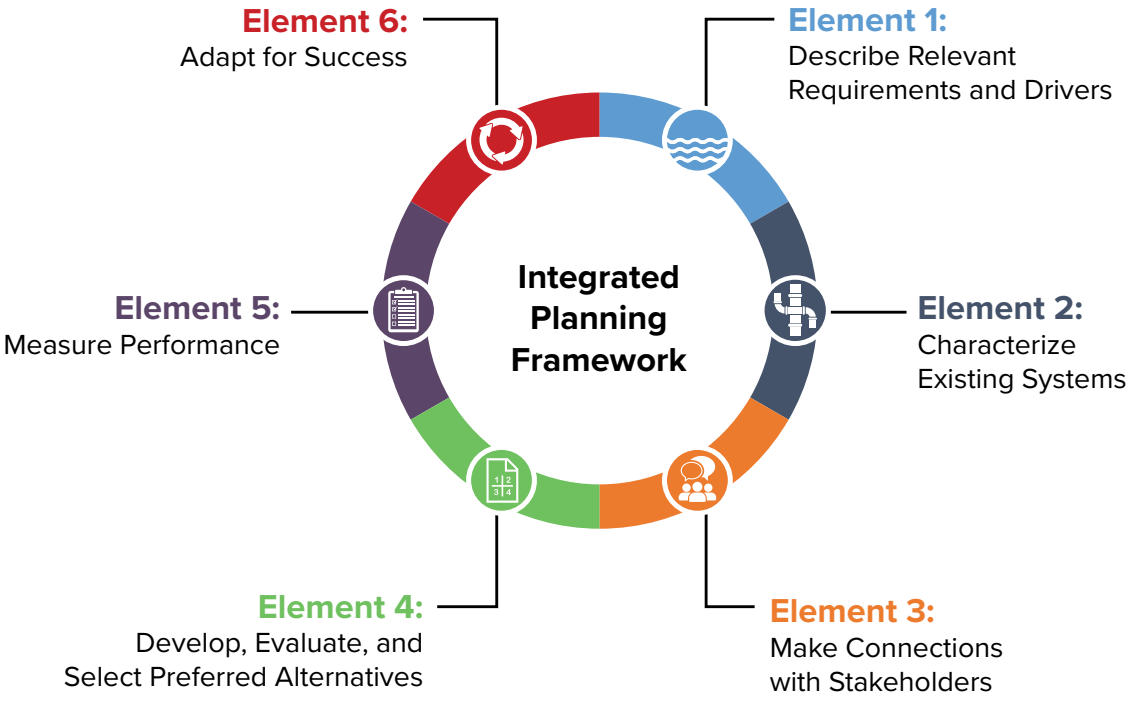
Rodney Cook, Sr Park capacity relief project.
Photo courtesy of J. Cory Rayburn.

The Integrated Planning Permitting Authority Toolkit consists of three modules, each designed to help the permitting authority promote and support integrated planning for National Pollutant Discharge Elimination System (NPDES) permittees. The modules have been designed to lead permitting authority staff along the path to incorporating integrated plans in permits. The modules are not fact sheets composed of narrative guidance; rather, they should be used as hubs for information on process steps, tools, resources, successful examples, and recommendations. You should select and use modules based on where you are on the integrated planning continuum.

This module—**Informing**—shares information about the benefits of integrated planning and suggests ways to inform permittees about how an integrated planning approach can help them achieve their water quality and community goals.



Review and distribute integrated planning materials internally.

EPA's Integrated Planning website is a good place to find a wide variety of resources. There you can learn more about the history of integrated planning, find a breakdown of the six Integrated Planning Framework elements, and explore a map of integrated plans others have developed. The site also contains profiles that illustrate how permittees have worked with their permitting authorities to incorporate their plans in permits, consent decrees, or administrative orders. EPA policy memos and implementation documents show EPA's support for integrated planning, highlighting what the Water Infrastructure Improvement Act (WIIA) of 2019 established in law at Section 402(s) of the Clean Water Act (CWA).

Andrew Sawyers at the U.S. EPA Webcast: The Straight Scoop on Integrated Planning

RESOURCES:

- The Integrated Municipal Stormwater and Wastewater Planning Approach Framework provides guidance for EPA, permitting authorities, and local governments to develop and implement effective integrated plans under the CWA.
- The Integrated Planning Virtual Roundtable for NPDES Permitting Authorities features three state speakers who explain how integrated plans have been incorporated in NPDES permits in their states.
- The *Report to Congress on Integrated Plans* compiles information on all integrated plans developed and implemented through permits, orders, or judicial consent decrees, including a description of the control measures, levels of control, estimated costs, and compliance schedules included in the plans.
- The WIIA legislation added Section 402(s) to the CWA, amending that act to include the 2012 Integrated Municipal Stormwater and Wastewater Planning Approach Framework. WIIA provides greater certainty that integrated planning provides a comprehensive path a municipality can take voluntarily to meet CWA requirements.
- The Implementation of Integrated Planning in Accordance with the 2019 WIIA memorandum to EPA Regions highlights new provisions in WIIA, describes how EPA will support implementation of WIIA, and provides a preliminary list of integrated plans.
- The Implementation of Integrated Planning and Green Infrastructure through Enforcement Tools memorandum informs enforcement and compliance assurance division directors of the requirement to inform a municipality of the opportunity to develop an integrated plan in conjunction with an enforcement action.
- The Stormwater Planning website contains a guide, resources, and technical assistance documents that may be used to incorporate stormwater components into an integrated plan.

Establish an informal integrated planning work group.

Technical staff and management who write and enforce wastewater and stormwater permits will benefit from general information about integrated planning and will need to participate in subsequent activities within this module—for example, to identify candidate permittees. It will be helpful to create a work group of these staff early on to relay information to permittees and stakeholders, ask questions, and identify expertise. Later, you will identify an integrated management team (or teams) tailored to permittees that are good candidates; for now, creating the work group will help your agency build a solid foundation and provide a mechanism for internal coordination.

Consider how integrated planning can benefit you.

EPA developed the Integrated Planning Framework to ensure that water quality improvements happen—and that permittees get the flexibility to make them happen cost-effectively. Integrated planning has other benefits that may be less obvious than these. It may be new to you or your permitting authority, but once the process becomes familiar it could foster enhanced collaboration across multiple departments within your permitting authority, while achieving water quality improvements faster.

Several states have incorporated integrated plans into permit or enforcement documents:

Georgia	Iowa	Kansas
Massachusetts	Missouri	Ohio
Virginia	Washington	

Coordinators from these states may be willing to chat with you about their process. You can also review the presentations from the Integrated Planning Virtual Roundtable for NPDES Permitting Authorities.

Integrated planning can help your permitting authority achieve several important goals. For example, it can help in:

- Proactively ensuring compliance with new permit limits.
- Achieving designated uses of state waterbodies faster.
- Reducing enforcement actions and their resource costs.

Having general goals for integrated planning at the permitting authority level will help later (see Module 2: Collaborating) when you are working with permittees to identify common integrated planning objectives.

A permittee in the Midwest with a population of about 200,000 people was under a consent decree to reduce its CSO volume and secondary treatment bypasses at its WWTF. Its long term control plan included sewer separation, storage basins and tunnels, and WWTF upgrades. Through integrated planning, it resequenced its projects and added green infrastructure to attenuate CSO flows. By prioritizing bypass treatment technology at the wastewater treatment facility, the municipality was able to expand secondary treatment capacity faster than anticipated, resulting in secondary treatment of 826 million gallons of wastewater above what the consent decree required.

Identify an integrated planning "champion" within your agency's management.

Perhaps this person is you! Integrated planning, particularly at first, can be time- and resource-intensive for permittees and permitting authorities supporting them. Many permitting authorities have indicated that the process is well worth the effort, but it is important to get buy-in within the agency to ensure commitment to the process and adequate support for interested permittees. The tools provided in this toolkit are meant to help streamline the process and familiarize permitting authorities with integrated planning.

Educate permittees about the integrated planning process and benefits.

Permitting authorities write permits to ensure dischargers meet Clean Water Act requirements. Permittees may be able to use their on-the-ground knowledge and holistic understanding of their systems to meet these requirements while also serving other community needs. Since the Integrated Planning Framework lets permittees sequence projects to address the most pressing water quality concerns first, to ensure financial feasibility, and to meet other local needs, an integrated plan can save the permittee money and create more long-term regulatory certainty.

Integrated planning can have a more affordable outcome than conventional planning. It can decrease infrastructure costs by, for example, reducing the need for treatment by reducing infiltration and inflow.

Possible permittee goals:

- Reduce CSOs.
- Prevent SSOs.
- Reduce WWTF bypasses.
- Improve water quality in stormwater discharges.
- Meet anticipated permit limits, requirements, or pollution reductions in order to protect local waterbodies.
- Comply with TMDLs.
- Reduce costs of compliance.
- Reschedule compliance projects.
- Meet climate resiliency needs.
- Reduce compliance-related capital infrastructure costs, particularly for overburdened communities.
- Conserve water or energy.

Implementing an integrated plan can cost less than implementing traditional infrastructure.

- Akron, Ohio, saved $158 million in project costs between 2015 and 2019.
- Boone, Iowa, saved an estimated $500,000–$700,000 by reducing the size of its disinfection system.
- Spokane, Washington's integrated plan cost $140 million less than the long-term control plan.
- The Towns of Exeter, Stratham, and Newfields, New Hampshire, estimated savings of $100 million to $220 million in 50-year lifecycle costs.

When permittees have multiple goals they want to achieve, showing them examples from other permittees' experience with integrated planning might spur their interest in the process.

Use the following crosswalk to identify plans to share via email and discuss with permittees. Each permittee in the crosswalk also has a profile on EPA's Integrated

Planning website that may provide valuable details to your permittees.

> “[We’re] doing the integrated planning approach, but we’re also solving five or six other issues, and we’re getting the secondary benefits, like with green infrastructure, we’re getting green space. We’re getting new roads out of it. We’re getting infrastructure for economic development. So in the back end, the city, although not calculated, ultimately, will end up with a better implemented program than just doing the siloed approach.”
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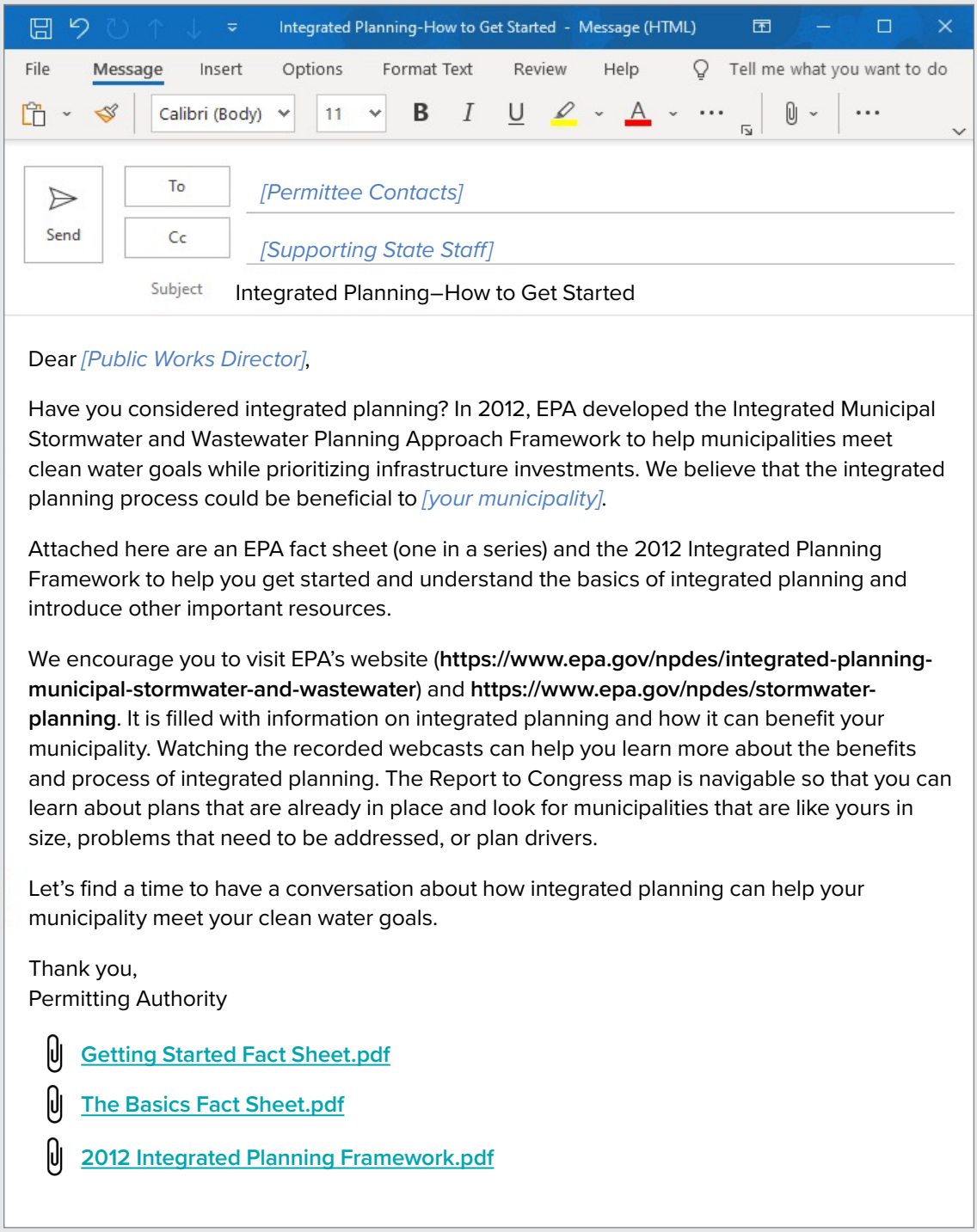
> *—Kevin Buckley, Seattle, Washington*

Permittee	Population	Integrated Planning Outcomes
Boone, Iowa	15,000	Cost savings, SSO reduction, I/I reduction, basement backup reduction
Exeter/Stratham/ Newfields, New Hampshire	20,000	Cost savings, new WWTF with nitrogen removal, increased nitrogen removal from stormwater runoff
Lima, Ohio	40,000	Increased wet weather capacity of WWTF, CSO reduction
Lakewood, Ohio	50,000	Sewer separation
Lawrence, Kansas	100,000	SSO reduction, I/I reduction, construction of new WWTF
Springfield, Massachusetts	150,000	CSO reduction, SSO reduction, improved asset management
Springfield, Missouri	170,000	I/I reduction, SSO and basement backup reduction, PAH reduction in stormwater through Clean Pavement Initiative
Akron, Ohio	200,000	Cost savings, WWTF bypass reduction
Spokane, Washington	220,000	Cost savings, integrated projects and streets, CSO basin size reduction
Richmond, Virginia	230,000	Integrated permit, green infrastructure
Atlanta, Georgia	500,000	Green infrastructure, alleviated flooding by capturing and storing stormwater
Johnson County, Kansas	600,000	Buy-in from stakeholders and elected officials, improved asset management
Seattle, Washington	700,000	CSO reduction, increased TSS and phosphorus removal from stormwater runoff, increased pedestrian activity, traffic calming, improved aesthetics, green infrastructure, and increased public awareness
Hamilton County (Cincinnati), Ohio	820,000	CSO reduction, water quality improvements (nine new species of smallmouth bass)
Columbus, Ohio	900,000	SSO reduction, green infrastructure, I/I reduction
Los Angeles, California	4,000,000	Recycled water production, green infrastructure

Provide information about integrated planning to municipalities during regular permittee calls, communications, or trainings.

Share the Framework document as well as the "Getting Started" fact sheet and EPA's Integrated Planning website to introduce permittees to integrated planning.



You could also consider holding a meeting, peer-to-peer exchange, or webcast with permittees to discuss the process, describe the possible benefits, and perhaps spotlight a community that you think will resonate with permittees. Look to include examples that have similar demographics and needs that match the permittees in your state.

Peer-to-Peer Exchange Webinar: Why IP?

Benefits for Permittees PowerPoint summarizing benefits and steps of integrated planning.

Report to Congress on Integrated Planning Municipality Profiles for reference

Identify permittees that may be the most interested and capable of conducting integrated planning.

Your general outreach may create interest in integrated planning, but it can also be useful to find the strongest candidates and reach out to them more deliberately. Analyzing characteristics, challenges, and goals of the permittees can help you understand what might drive them toward integrated planning. Targeting the most likely candidates will help you focus your resources on educating and supporting the permittees most likely to succeed with integrated planning.

Permittee characteristics you'll analyze could include:

- Existing enforcement cases.
- Economic challenges.
- Expensive capital projects required to comply.
- Recent compliance issues, pre-enforcement.
- High-risk exposure SSO/basement backups/beach closures.
- Existing or prior planning efforts.
- Existing staff or consultant capability/resources.
- Anticipated climate impacts or infrastructure resiliency challenges.

Identify a permittee-specific team within the permitting authority to interact with candidate permittee(s).

Before reaching out to possible candidates, it is a good idea to identify the staff (technical and management) who would need to support them during the integrated planning process. This will be very specific to the permittee and will be based largely on the types of permits the plan is likely to address. If the candidate permittees are under enforcement action, you should notify and include relevant enforcement staff as well. More specific roles may be identified during later phases of the integrated planning process.

Permitting Authority Staff	Informing Role
Permitting staff management	Ensure resources are available to adequately support integrated planning and encourage communication between permit writers and with enforcement staff.
Wastewater technical staff	Send initial communications, run all educational workshops and meetings, lead initial one-on-one meetings. Communicate between themselves to understand the range of CWA obligations the permittee must consider.
Stormwater technical staff	
CSO technical staff	
Enforcement staff	Work with permitting staff to ensure that the plan can satisfy any pending enforcement actions.
Economists	Review economic analyses included in the plan, such as a financial capability analysis.
Communications staff	Provide guidance on community outreach.
Clean Water State Revolving Fund staff	Provide guidance on funding opportunities for permittees to consider when writing the plan.
Non-Permitting Authority Partners	**Informing Role**
EPA headquarters and regional staff	Support the permitting authority in integrated planning efforts and represent EPA interests.
EPA's Municipal Ombudsman	Supports municipalities navigating the CWA and provides information on integrated planning. technical assistance, and federal financial opportunities.

Consider how the permitting authority and the candidate permittee(s) goals align.

Before reaching out to a candidate permittee, the team first should consider how the permitting authority and the permittee's goals may align. Consider asking the permittee-specific team the following questions to identify potential alignments:

- What are the state's water quality priorities? Does the permittee have challenges meeting requirements associated with these priorities?
- Is the permittee having compliance issues with one or more permits?
- Are the permitting authority and permittee currently engaged in enforcement action(s)? Has the permittee experienced compliance issues in the past?
- What human health issues are being addressed by the permittee?

Permittee Goals
Reduce costs of compliance
Schedule projects more af-fordably
Address other community challenges such as climate resilience or water or energy conservation
Permitting Authority and Permittee Goals
Ensure permit compliance
Improve quality of local waterbodies
Reduce enforcement costs
Protect human health

Examples:

- Springfield, Massachusetts, experienced CSOs and SSOs during heavy rain events due to stormwater entering its combined and sanitary sewer systems. EPA and the Massachusetts Department of Environmental Protection required the city to reduce these discharges. The city was also required to reduce nitrogen loading from its WWTF to comply with the Long Island Sound TMDL.
- Columbus, Ohio, experienced SSOs and basement backups due to infiltration and inflow into its sanitary sewer system. Large storms also caused CSOs and bypasses at its WWTFs, and as a result the Ohio Environmental Protection Agency filed two consent orders requiring the city to address SSOs and CSOs. In addition to reducing these discharges, Columbus needed to improve stormwater quality and comply with TMDL implementation for bacteria, nutrients, sediment, and total suspended solids in its WWTF and stormwater permits.
- The Iowa Department of Environmental Quality required the City of Boone to install disinfection equipment to meet more stringent bacterial effluent limits. Boone knew that infiltration and inflow caused SSOs and increased flow to the WWTF, which affected the size of needed disinfection equipment. Boone could reduce the treatment capacity of the disinfection equipment if it sequenced the infiltration and inflow projects first. The city developed an integrated plan to prioritize infiltration and inflow removal, then install disinfection equipment at a lower cost to ratepayers while complying with the permit requirement.
- Springfield, Missouri, was under a consent judgment with the Missouri Department of Natural Resources to address SSOs and reduce bypasses at its WWTFs. It also needed to comply with two WWTF permits and a stormwater permit that implement TMDLs and address stream impairments caused by polycyclic aromatic hydrocarbons in stormwater runoff from driveways and parking lots.

Tom Stiles from KDHE at The Straight Scoop on Integrated Planning

> “I think the thing that it helps us overcome, as well as the regulator, is the fixed permit cycle....We need to not look just five years out we need to look at 20 years out. And so it kind of helped bring that into focus that everybody was on the same page between KDHE, EPA, and us on where we’re headed and when we’re gonna get there. And it didn’t have those confines of the strict NPDES permit schedule or compliance.”
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> *—Dave Wagner, Lawrence, Kansas*

Conduct outreach to candidate permittees.

Once you’ve identified likely integrated planning candidates and shared goals, contact them to share targeted information with their management and technical staff. If you have already shared general information, it may now be appropriate to share more technical resources. Making the Right Choices for Your Utility: Using Community Priorities and Sustainability Criteria for Water Infrastructure Decision-Making can help as they consider the resources needed to conduct the planning. The Guidance for Financial Capability Assessment and Schedule Development might also be useful, as might information about possible funding sources to create and implement the plan.

The permittees may benefit from presentation materials for their elected officials. Permittees can use the Elected Officials PowerPoint to explain the benefits of integrated planning directly to their elected officials.

This information may best be conveyed in a meeting (in-person or virtual). If the permittee is currently under or negotiating an enforcement action, it would be best to include enforcement staff from the beginning.

In identifying likely candidates, you made educated assumptions about the challenges they face and the resources they have to achieve compliance and/or conduct integrated planning. Now it is a good idea to let them explain their challenges to you. This will create a space for listening and learning from the very beginning—and they might provide relevant information that you had not known. Remember that, while CWA compliance is not voluntary, using integrated planning is, and it can often get better water quality results faster. Teasing out how and why integrated planning may benefit the permittee as well as the permitting authority is key when promoting this approach to permittees who may not be accustomed to integrating infrastructure plans, budgets, and staff.

EPA has hosted a number of webcasts to help both permitting authorities and permittees learn more about the benefits and process of integrated planning. Some have also included the opportunity for peer-to-peer exchange so that permitting authorities and permittees can learn about what others have found to be successful.

The Straight Scoop on Integrated Planning reviews the key elements of integrated planning and what it means for EPA, permitting authorities, and permittees.

Introducing EPA's Integrated Planning Element Four discusses how to evaluate stormwater and wastewater projects while analyzing and prioritizing projects. It also walks through the six integrated planning elements.

Integrated Planning Peer-to-Peer Exchange for Municipalities addresses barriers and concerns for permittees throughout the integrated planning process and features two permittees discussing their successfully completed plans.

Framework Element	Description	Planning Rationale
1 	Describe Relevant Requirements and Drivers	For a permittee to integrate all of its clean water needs, it must have a comprehensive understanding of the requirements it must meet and other relevant drivers.
2 	Characterize Existing Wastewater and Stormwater Systems	Characterizing the baseline performance of all systems allows the permittee to evaluate ways to optimize its performance, reduce the potential for deficiencies, and identify current and future system needs. Assessing relevant systems simultaneously can inform how the permittee prioritizes investments on a systemwide scale.
3 	Make Connections with Stakeholders	Stakeholder engagement helps the permittee consider a variety of perspectives during plan development and implementation, which helps it identify obstacles and gain long-term support. Stakeholders also have valuable local knowledge and can help the planning team develop better project alternatives that will simultaneously address water quality and community priorities.
4 	Develop, Evaluate, and Select Preferred Alternatives	This process allows the permittee to objectively determine the list and sequence of projects that will best meet plan objectives.
5 	Measure Performance	Developing criteria to measure success allows the permittee to determine if the plan is meeting its goals. This element ensures that the permittee has intermediate check-ins so it can determine if projects are performing as planned and if it will accomplish the long-term objectives.

Framework Element	Description	Planning Rationale
6	Adapt for Success	If the permittee is not on track to meet integrated planning goals or conditions change, it can adjust the projects in the plan so that it can still meet its long-term goals. This makes it more likely that the integrated plan will succeed over the planning period.

Once one or more candidate permittees have decided to pursue integrated planning, the permitting authority should encourage active collaboration between agency and permittee staff. Module 2 will describe actions, tools, and resources to support this role.