ENVIRONMENTAL PROTECTION AGENCY
DEVELOPING A NEW FRAMEWORK FOR
COMMUNITY AFFORDABILITY
OF CLEAN WATER SERVICES

INTEGRATED PLANNING WORKSHOP
OCTOBER 2, 2019
Snapshot of the National Academy of Public Administration

❖ Established in 1967 to assist government leaders in building more effective, efficient, accountable, and transparent organizations.
❖ Chartered by Congress in 1984 to provide non-partisan expert advice
❖ Unique feature is its 900+ Fellows--including former cabinet officers, Members of Congress, governors, mayors, and state legislators, as well as prominent scholars, business executives, and public administrators.
❖ The Academy helps government leaders at all levels address their critical management challenges through in-depth studies and analyses, advisory services and technical assistance, Congressional testimony, forums and conferences, and online stakeholder engagement.
❖ Under contracts with government agencies, some of which are directed by Congress, as well as grants from private foundations, the Academy provides insights on key public management issues, as well as advisory services to government agencies
The Senate Appropriations Committee, in a report on FY 2016 legislation, directed the Environmental Protection Agency (EPA) to contract with the National Academy of Public Administration (the Academy)—an independent, nonpartisan, nonprofit organization chartered by the U.S. Congress—“to conduct an independent study to create a definition and framework for community affordability.”

- Report delivered to Congress October 2017
- Panel of five Academy Fellows and Study Team of five

❖ Report includes:
  - Findings and recommendations focus on:
    - Informing a revised Community Affordability Framework
    - Innovative Solutions for Community Affordability to expand the options for providing clean
    - The role of integrated planning in informing both community decision-making and regulatory actions;
    - Benefits and costs analysis; and
    - Performance standards that emphasize the outcomes vs. the process.
As a result of the year-long study, the Panel developed a number of observations regarding the challenges and opportunities for delivering clean and affordable water to the nation’s citizens. Some principal findings that informed the 21 recommendations in this report include:

- Tension between competing imperatives
- Fragmented governance of the water industry and CWA/SDWA regulatory approaches
- Varied viewpoints and lack of common understanding of both the “why” and the “how to”
- EPA support is a critical element for implementation and extension of innovative approaches
Areas of Focus and Recommendations

Focusing on Water Affordability Issues (Continued)

Recommendation #1
EPA should improve the metrics used for the RI and FCI components in the 1997 FCA Guidance if it wants to establish a common starting point for all permittees while still considering supplementary permittee data in assessing a permittee’s burden in meeting its CWA goals. Since there is no perfect way to measure affordability and financial capability, the metrics used should meet the following criteria:
1. Readily available from publicly available data sources;
2. Clearly defined and understood;
3. Simple, direct, and consistent;
4. Valid and reliable measures, according to conventional research standards; and
5. Applicable for comparative analyses among permittees.

Recommendation #2
To improve the 1997 RI component, the elements defining the current component should be revised to:
1. Include all water costs, not just selected clean water costs, to include all drinking water and clean water costs – CSO control costs, stormwater costs, other sewer costs – as well as planned water infrastructure investments and any deferred costs of system operations and maintenance, in the burden assessment;
2. Focus on the income of low-income users most vulnerable to rate increases rather than MHI;
3. Identify the size of the vulnerable users relative to the utility's total rate payer base; and
4. Avoid arbitrary normative thresholds to determine relative burdens.

Recommendation #3
To improve the 1997 FCI component, the current elements defining that component should be revised or refocused to:
1. Focus on the operational efficiency, debt burden, and managerial effectiveness of the utility supplying clean water services; and
2. Expand the socioeconomic components affecting the utility's market conditions to include trends in population, relative wealth, economic growth, and other economic structural problems in the community served by the utility.

The ALICE framework and CNT’s True Affordability Tool are examples of progress towards more accurately identifying the truly vulnerable.
Areas of Focus and Recommendations

Focusing on Water Affordability Issues (Continued)

Recommendation #4
EPA should consider using the improved FCA framework in all of its clean and drinking water regulatory decision processes consistent with current statutory requirements.

Joint report’s HBI is defined as basic water service costs (combined) as a percent of the 20th percentile household income

Recommendation #5
EPA should improve its two-way communication strategy with its regions, state regulators, and other stakeholders to assure formal, consistent, and clear messaging on policy changes and effective monitoring and follow-up of clean water regulatory actions in the field. Additionally, EPA should ensure that its management information system, at a minimum, provides the following information:
1. The number of permittees found to have high burdens;
2. The specific reasons for that finding; and
3. The degree of regulatory relief, in the form of lengthened compliance schedules, provided to those highly-burdened permittees.
Areas of Focus and Recommendations

**Focusing on Integrated Planning (Continued)**

The Panel identified the importance of additional codification and communication to help communities understand the value of the process, but are still unclear about how to progress in development and implementation. Additionally, communities are struggling with how to coordinate an integrated plan in a way that best addresses both Clean Water Act (CWA) and Safe Drinking Water Act (SDWA) imperatives. Finally, communities remain uncertain about how EPA and state regulators will use the results of their integrated plan in resolving clean and drinking water environmental issues.

**Recommendation #6**

EPA should develop additional guidance that articulates expectations for implementation and maps out the “how” for both the communities as well as the front-line regulators. This guidance could include a centralized repository of lessons learned and technical assistance that municipalities could access in order to inform their own IP implementation strategies. Making information that the five technical assistance recipients acquired available to all interested communities expands the value of that assistance and further demonstrates the value of EPA’s investment. EPA should use both the recently developed Water Finance Clearinghouse and possibly a new website/portal to share this information. Similar to the Clearinghouse, any new site should allow approved contributors to submit information. Some key areas in which to provide information should include:

1. Case studies (both technical assistance recipients and other successful Integrated Planning efforts);
2. Information on availability of grants, loans, and technical assistance, as well as a community’s local in-kind or cash match contribution to water-related projects (this information is currently in EPA’s Water Finance Clearinghouse and may be linked to in a new site);
3. Links to other organization’s resources for focused and specific Integrated Planning implementation guidance; and
4. The ability for communities to interact and share information with one another.

EPA will need to direct financial resources to support the Water Finance Clearinghouse and the development of any new information portal. Support for human capital to manage and monitor the information and participant engagement is important as well.
Recommendation #7
EPA should establish guidelines for developing flexibilities that allow compliance with CWA and SDWA requirements within a timeframe that correlates with well-defined prioritization of community objectives, statutory and regulatory requirements, and integrated planning activities.

1. Much like the Ombudsman concept reflected in proposed Senate Bill 692 – Water Infrastructure Flexibility Act, this liaison between Headquarters and Regional EPA offices, states, and municipalities would provide a mechanism for aligning Water Quality Standards with the concerns and priorities of the local residents to optimize the value of each dollar of investment. This resource would also provide additional guidance to state and regional environmental oversight in order to ensure consistent application of flexibilities.
2. EPA will need to provide a consolidated review of the proposed Integrated Plan for consideration, which includes those impacted components.
3. An additional consideration is to use the Supplemental Environmental Projects policy, which currently provides accommodations for Integrated Planning activities in enforcement actions.

Recommendation #8
An EPA effort to expand Integrated Planning guidelines should require that each Integrated Plan provide established criteria and a formalized agreement between the community and appropriate governmental authorities to guide communities toward compliance and shared responsibility for achieving both compliance and Water Quality Standards.

This Framework would require that each Integrated Plan include a set of requirements outlining responsible parties, deadlines for meeting requirements, and a clear identification of each stakeholder’s responsibilities. Each Integrated Plan must be accompanied by a funding plan when submitted to regulators. In addition to the flexibility that Integrated Planning affords, additional incentives may include technical and planning support, and funding.
Focusing on Measuring Costs and Benefits

In the development and approval of control measures for combined sewer overflows (CSOs) and for other pollution sources considered together in an integrated process, the proponents of a control plan and the regulators reviewing it will take account of benefits and costs at several points in the process. Such consideration is called for both by regulatory requirements and policies, and by governmental decision-making practices of plan proponents. Currently, communities often struggle with the process of identifying and analyzing benefits and costs associated with long-term control plans and integrated plans. They address concerns that there is a lack of clarity regarding optimal levels of effort and sophistication, as well as how to expand beyond cost effectiveness in a way that truly illustrates a comprehensive set of environmental and health costs and benefits.

Recommendation #9
In estimating and evaluating benefits and costs relevant to the development and consideration of control plans and integrated plans, the following principles should be considered:

1. Analytical effort should be commensurate with the issue’s importance.
2. Simple cost effectiveness analysis should suffice for most individual CSO control issues.
3. More complex IPs may benefit from more extensive assessment of benefits and costs.
4. Distribution of benefits and costs among various populations should be considered.
5. Ancillary benefits and countervailing risks are often important and should be considered.
6. The impact of an extended implementation schedule on benefits and on costs, including any effect on how benefits and costs affect various groups differently, should be considered.
7. Retrospective evaluation of the benefits actually achieved and the costs actually incurred is often important for subsequent decision-making.
Areas of Focus and Recommendations

Focusing on Measuring Costs and Benefits (Continued)

Recommendation #10
EPA should build upon its existing efforts to make informational resources and other support and assistance available that would help both plan proponents and front-line regulators develop, review, and, eventually, agree on the assessments of costs and benefits needed to establish long-term control plans and integrated plans making best use of the flexibilities and opportunities offered under EPA’s policies.
Areas of Focus and Recommendations

Identifying and Evaluating Innovative Solutions and Smart Practices

Costs of regulatory compliance and deferred maintenance, as well as the need to replace and upgrade aging water infrastructure, are all driving the development of new approaches and adoption of smart management practices that can lower costs. However, investment in innovative solutions also presents risks, challenges for implementation, and costs associated with standardizing new procedures. The integrated planning process provides a context in which to identify and evaluate the feasibility and cost-effectiveness of innovative and more sustainable solutions for achieving compliance goals, as well as for providing other economic, social, and environmental or Triple Bottom Line co-benefits that may make it possible to obtain additional funding sources.

Recommendations 11-20 focus on promising practices that utilize new technologies and approaches to managing stormwater, knowledge management strategies, performance-based incentives, market-based approaches, new business models, and creative financing mechanisms to supplement existing efforts.

Recommendation #11
EPA should continue to strengthen efforts to engage stakeholders and collaborate in the development of tools, standard methods, and policies that can foster better understanding of the benefits of innovative Stormwater Management practices, and in the ongoing review of lessons learned from their application, as a basis for updating these. Better understanding of these benefits can also provide the basis for partnerships and the ability to obtain additional sources of funding.
Identifying and Evaluating Innovative Solutions and Smart Practices (Continued)

Recommendation #12
EPA should support innovation in water infrastructure management by working with communities to encourage and enable the use of practices that are consistent with generally accepted principles of good planning, and by institutionalizing the process of adaptive management in enforcement and permitting as well as in planning. This is a process that involves monitoring, evaluation, learning from outcomes, and building on experience, thereby incentivizing innovation and the development of new capacities. The process should be supported through:

1. Financial assistance for planning and development activities, which should be made available for early and comprehensive public engagement in these activities, so that stakeholders have an opportunity to gain understanding of the purpose of Green Stormwater Infrastructure and the importance of stewardship. This early engagement will also enable them to provide meaningful input into planning, design, and decision-making.

2. Use of place-based assessment, with stakeholder input, to identify appropriate locations for effective and implementable projects, as well as the potential for innovation and barriers to it that may need to be addressed.

3. Identification of opportunities to improve equity in the distribution of benefits by addressing Environmental Justice concerns.

4. Building capacity for proactive asset management including the evaluation of opportunities for investment in natural infrastructure to prevent increases in stormwater runoff and flooding.
Identifying and Evaluating Innovative Solutions and Smart Practices (Continued)

Recommendation #13
Markets for Stormwater Retention Credits (SRCs) are promising for growing cities with active real estate markets. EPA should facilitate the adoption of these SRCs in other cities by providing guidance, technical assistance, and start-up grants to cities to enable them to build their capacity to develop and manage a credit market.

Inclusion of stormwater in water quality trading has the potential for significant cost savings and is worth considering where certain conditions can be met. EPA should work with states to identify places where these conditions can be met, (i.e., where there are opportunities for trading, upstream from impaired urban water bodies and water intakes, that can contribute to meeting their NPDES permit and TMDL requirements as well as protect drinking water) and determine what enabling legislation or regulations may be needed to support trading in these conditions. In addition to protecting water quality, agricultural best management practices can also allow for other economic and environmental co-benefits that provide the basis for partnerships and opportunities for additional funding.

Recommendation #14
Local governments should improve communication about stormwater management, and the value of the user fee as a more equitable approach to paying for it, highlighting ways the fee has been successfully used to recover as well as reduce costs of managing stormwater and to mitigate repetitive flooding.

Because user fees can be significant, they need to be coupled with incentive programs that enable property owners to reduce stormwater fees in exchange for the adoption of green infrastructure practices. Local governments should also consider combining these types of fees with grants or loans for upfront costs on large non-residential properties. Since not all local governments have the authority from their states to charge these fees, enabling legislation should be considered in those states that do not have it.
**Identifying and Evaluating Innovative Solutions and Smart Practices (Continued)**

**Recommendation #15**
New business models such as Community-Based Public Private Partnerships (CBP3s) are promising. EPA should encourage the carefully structured and appropriate experimentation with CBP3s through knowledge sharing activities that build critical government capacity to manage the process, and for strategic planning to guide project selection.

**Recommendation #16**
An evaluation of any state use of WIFIA loans to expand their SRF lending activities is needed to compare the advantages and disadvantages of this leveraging technique relative to other leveraging techniques (e.g., tax exempt bonds). The evaluation can also identify potential program or statutory impediments to increasing SRF lending operations by leveraging WIFIA resources and assessing WIFIA’s ability to meet its statutory goals by allocating some of its loan resources to increase SRF lending activity.

**Recommendation #17**
Those proposing financial reforms to address local community and utility water infrastructure investment needs should focus on the most critical issue – additional resources to lower costs and provide greater access to long-term financing to meet water infrastructure investment needs.

**Avon Lake Regional Water’s Lateral Loan Program** is an awarding winning example of innovative solutions to address affordability concerns. NAPA report cautions that no one SRF lending option or WIFIA loans are sufficient to address current funding needs. Joint lending activities are one way to ensure these complementary programs are effectively coordinated to meet highest priority funding needs.
Areas of Focus and Recommendations

Identifying and Evaluating Innovative Solutions and Smart Practices (Continued)

Recommendation #18
EPA should ensure that the Water Finance Clearinghouse and technical assistance activities provided through the Water Infrastructure and Resiliency Finance Center (Water Finance Center) include sharing information on the risks, costs, and advantages of any innovative financial instrument being proposed with states and localities before those instruments are used.

EPA’s Water Infrastructure and Resiliency Finance Center and the Environmental Finance Centers affiliated with universities in each of EPA’s 10 regions have the analytical expertise to develop and provide that information.

Recommendation #19
EPA should work with local and state governments to eliminate barriers restricting utilities’ ability to develop more efficient and equitable water rate structures, including specific CAPs for financially distressed low-income ratepayers. EPA’s Water Finance Center should continue to develop and disseminate information on CAPs to water industry stakeholders and other interested parties.
Recommendation #20
EPA’s Water Infrastructure and Resiliency Finance Center staff and the staff at the 10 Environmental Finance Centers should extend their work with local communities and utilities to help them apply those principles of equity, efficiency, effectiveness, transparency, and collectability in adopting more effective water rate structures and CAPs to address increasing water affordability issues for low-income users.
Focusing on Performance Standards

The Panel has found that integrated planning (IP) can, in appropriate situations, yield substantial benefits, by enabling communities to achieve the greatest benefit to the environment and public health at the lowest financial cost. Accordingly, the Panel recommended that EPA consider requiring that IP proponents should work to develop their Integrated Plan, if feasible, before seeking regulatory approval of any deferred implementation schedules. And, in addition to requiring that, in appropriate circumstances, an integrated plan must be developed, EPA might also develop and apply performance standards against which the sufficiency of integrated plans would be evaluated.

Recommendation #21
EPA should consider whether it is feasible and desirable to develop and apply performance standards against which the sufficiency of integrated plans would be evaluated. In developing such performance standards, EPA should consider the following components:

1. Under the performance standard, an integrated plan for compliance with NPDES requirements (in addition to meeting other applicable conditions) should provide for the achievement of the greatest water-quality benefits as quickly as affordable.

2. Under the performance standard, an integrated plan for compliance with both NPDES and Safe Drinking Water Act requirements (in addition to meeting other applicable conditions) should provide for the greatest water-quality and drinking-water benefits as quickly as is affordable. Regulators should encourage and accept such a proposed one-water integrated plan only if they are willing and able to collaboratively apply equitable and principled criteria for reviewing and, if appropriate, approving the proposed choices among water-quality and drinking-water priorities.

3. The performance standard might list several specific conditions with which the proponents of a control plan should be required to demonstrate compliance, in such areas as:
   - Compliance with applicable statutory and regulatory requirements.
   - Methodology for constructing an acceptable implementation schedule.
   - Consideration of green infrastructure.
   - Use of available sources of financing to enhance affordability.
   - That the sequencing addresses higher-priority environmental or public-health risks soonest.
   - Avoidance or mitigation of any disproportionate adverse impacts on disadvantaged communities.
Takeaways from the Study

Complex Issue and Tremendous Efforts Being Made

❖ The Panel recognizes the efforts that EPA has undertaken to develop and improve necessary affordability guidance.

❖ The agency’s work to address new and innovative approaches to achieving Water Quality Standards reflects forward-looking efforts.

❖ Ongoing efforts to improve municipal leaders’ ability to assess and respond to concerns of community and individual affordability illustrate the commitment to responsive, accountable government at all levels.
On the Horizon

GRAND CHALLENGES
IN PUBLIC ADMINISTRATION

[Diagram with various triangle icons representing different challenges]
On the Horizon

AREA ONE

To protect and advance democracy, America must address these Grand Challenges:

- Protect Electoral Integrity
- Develop New Approaches to Public Governance and Engagement
- Modernize and Reinvigorate the Public Service
- Utilize Global Partnerships to Advance National Interests
AREA TWO

To strengthen social and economic development, America must address these Grand Challenges:

FOSTER SOCIAL EQUITY

ADVANCE THE NATION’S LONG-TERM FISCAL HEALTH

BUILD RESILIENT COMMUNITIES

CONNECT INDIVIDUALS TO MEANINGFUL WORK
On the Horizon

AREA THREE

To protect the environment and preserve natural resources, America must address these Grand Challenges:

- Steward Natural Resources for Future Generations
- Create Safe and Sustainable Regional Water Systems
AREA FOUR

To address technological changes, America must address these Grand Challenges:

- Ensure data security and privacy rights of individuals
- Make government AI ready
Stay in touch

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