



# INTEGRATED PLANNING MOVING FORWARD WITH IMPLEMENTATION

## One Water Government Affairs and Regulatory Workshop

March 9, 2017



# WHAT IS THE INTEGRATED PLANNING APPROACH?

A **voluntary** opportunity for municipalities to propose to meet CWA requirements

- sequencing wastewater and stormwater projects in a way that allows the highest priority environmental projects to come first, and
- potentially using innovative solutions, such as green infrastructure



It is *not* a means to change

- regulatory standards
- **or**
- requirements



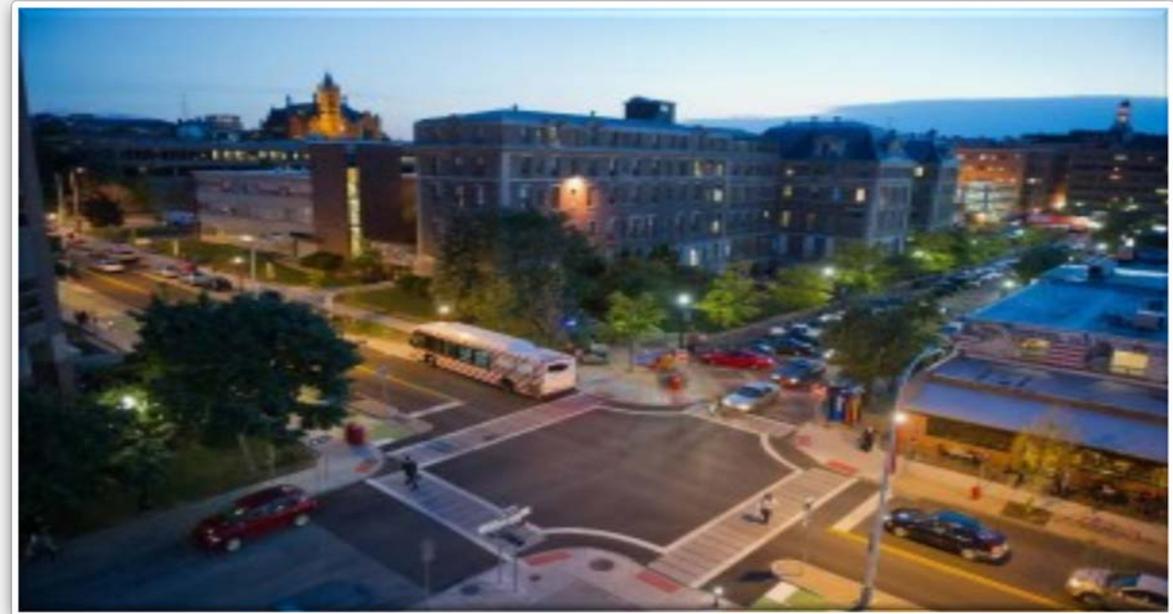
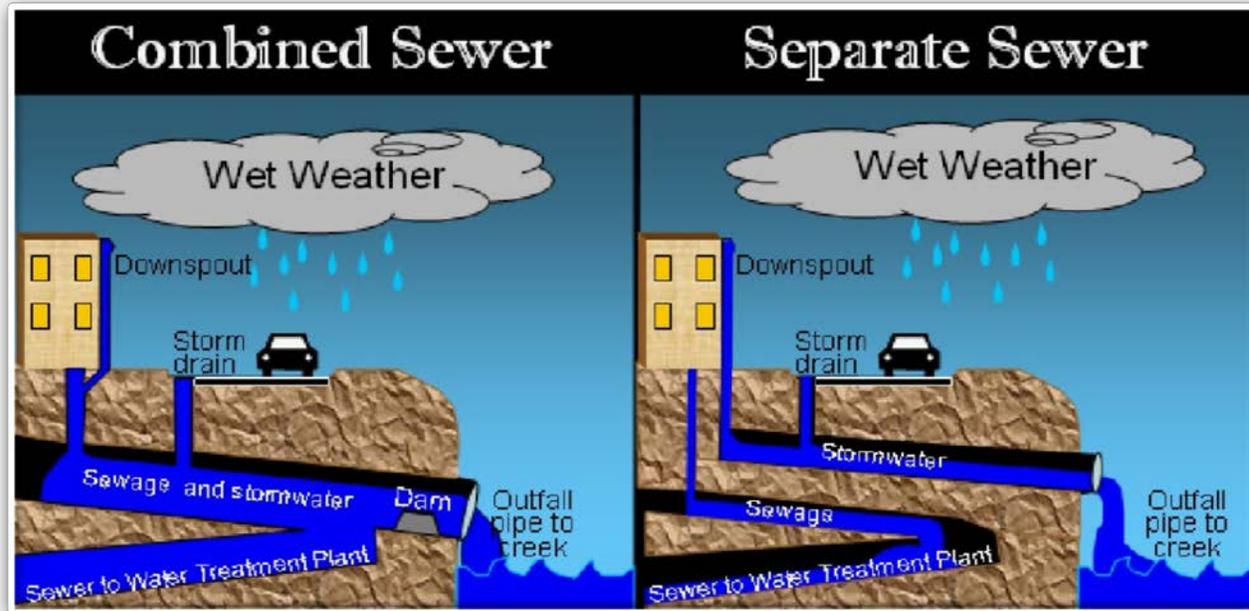
# SCOPE OF AN INTEGRATED PLAN

May include National Pollutant Discharge Elimination System (NPDES) permit requirements for:

Wastewater treatment plants (WWTP/POTWs)



Municipal separate storm sewer systems (MS4s)



<http://civilengineerspk.com/wp-content/uploads/2014/03/001.jpg>

# INTEGRATED PLAN ELEMENTS



**Element 1 — Water Quality, Human Health, Regulatory Issues**



**Element 2 — Existing Systems and Performance**



**Element 3 — Stakeholder Involvement**



**Element 4 — Evaluating and Selecting Alternatives**



**Element 5 — Measuring success**



**Element 6 — Improvements to Plan**

# BENEFITS OF INTEGRATED PLANNING

Accommodates flexible sequencing and scheduling

- ◆ Realize greater environmental benefits sooner

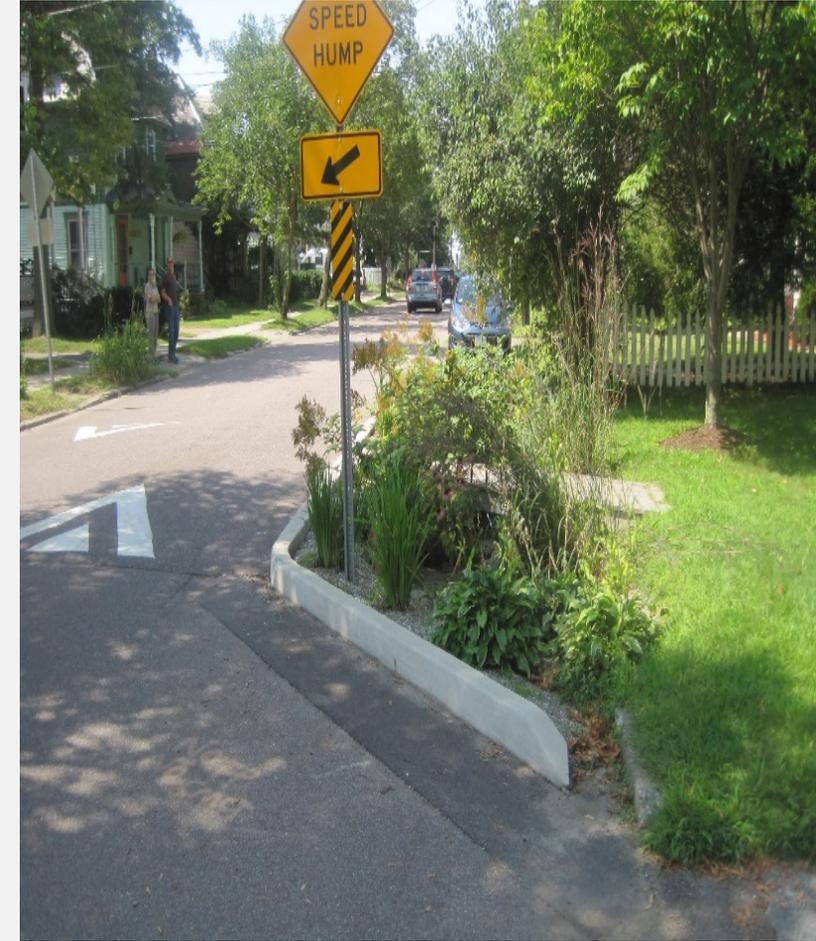
Builds public and stakeholder support through outreach and community input on priorities

Considers separate regulatory requirements together to:

- ◆ Meet requirements more efficiently
- ◆ Maximize municipal resource use

Encourages more sustainable/multi-benefit solutions

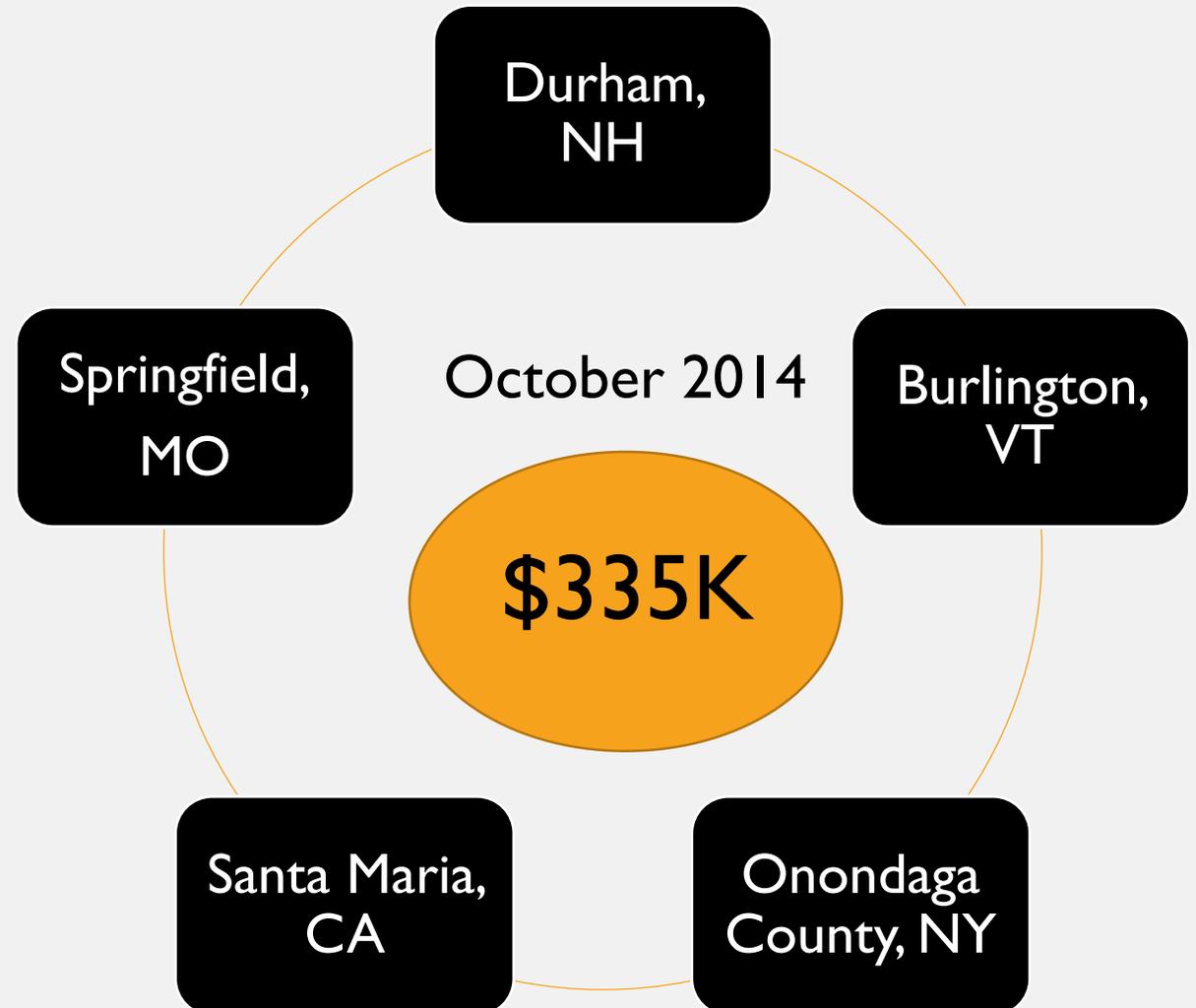
- ◆ Green stormwater infrastructure
- ◆ Addressing non-point sources



# TECHNICAL ASSISTANCE

## Goals of the Technical Assistance

- Prepare elements of integrated plans and develop products other communities can use
- Municipalities expect to use plans and analyses to inform discussions of NPDES permit requirements



# INTEGRATED PLAN ELEMENTS AND TOOLS

Integrated Plan Elements	Technical Assistance Tools and Projects
1 Description of WQ, human health, and regulatory issues	
2 Description of existing wastewater and stormwater systems and current performance	<b><i>Tool to help better integrate stormwater resources between co-permittees</i></b> (Durham, NH)
3 Stakeholder communication	<b><i>Stakeholder engagement strategy guide</i></b> (Burlington, VT; Onondaga County, NY)
4 A process for identifying, evaluating, and selecting alternatives and proposing implementation schedules	<b><i>Project ranking and prioritization tool</i></b> (Burlington, VT; Onondaga County, NY; Santa Maria, CA)  <b><i>Guide on characterizing the value of water resources</i></b> (Springfield, MO)
5 Measuring success - evaluation of monitoring data, pilot studies	
6 Improvements to the Plan (adaptive management)	

# BETTER INTEGRATION OF STORMWATER (DURHAM, NH & UNH)

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## Description of existing wastewater and stormwater systems and current performance

- Summary of how municipal stormwater permittees can coordinate and share resources to address regulatory requirements
  - Identifies, for each of the six minimum measures and other major categories, specific activities that could potentially be shared between multiple permittees
  - For example, can equipment be shared? Can staff take joint training classes? Can public education activities be shared?
  - Case study of potential shared stormwater resources between City of Durham and University of New Hampshire
- Report also reviewed available stormwater financing options for municipal stormwater programs



# STAKEHOLDER ENGAGEMENT STRATEGY GUIDE

## (BURLINGTON, VT; ONONDAGA COUNTY, NY)

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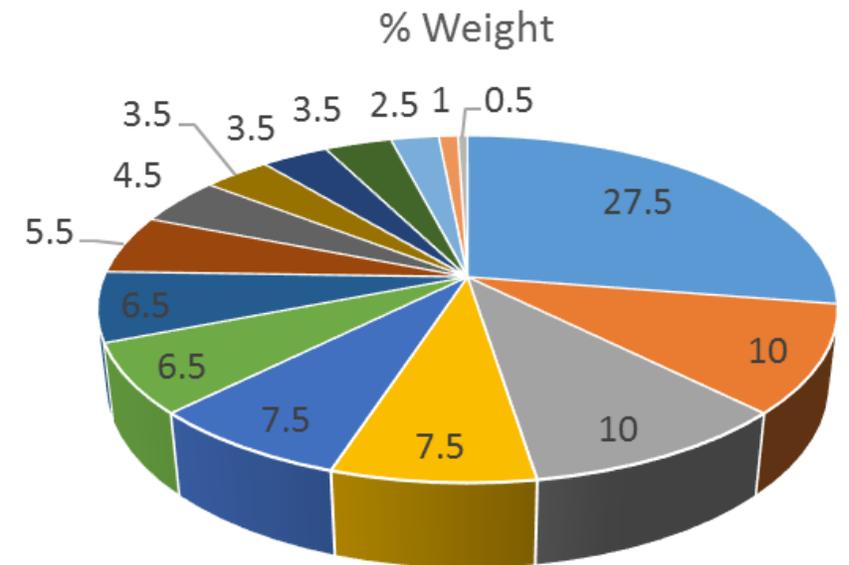
### Stakeholder communication

- Approaches for improving public awareness and using public input to inform decision-making process
- Engaging and involving stakeholders in integrated planning
- Working with stakeholders to develop and prioritize project evaluation criteria
- Two case studies from Burlington and Onondaga
  - Included examples of stakeholder involvement and developing prioritized project evaluation criteria for each



# Example

## Stakeholder weighting assignments for project evaluation criteria from the Onondaga County workshop



- Environmental Performance
- Operational Stability / Resilience
- Sustainability Support
- Quality of Life Enhancements
- Climate Change Resilience
- Maintenance Costs are Low/Moderate
- Operating Costs are Low/Moderate
- Positive Visibility and Community Relations
- Construction Costs are Low/Moderate
- Flooding Mitigation
- Low Profile Operation
- Partnerships in Implementation
- No Construction Disruptions
- Availability of Assistance
- Economic/Employment

# PROJECT RANKING AND PRIORITIZATION TOOL

(BURLINGTON, VT; ONONDAGA COUNTY, NY; SANTA MARIA, CA)

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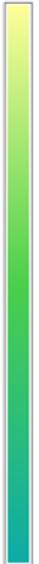
A process for identifying, evaluating, and selecting alternatives and proposing implementation schedules

- Overview of decision-making approaches
- Examples on selecting project evaluation criteria
- How to apply evaluation criteria to proposed projects
- Case studies in developing and applying project evaluation tools for each city



# BURLINGTON DECISION SUPPORT TOOL

## SCORING AND RANKING WASTEWATER AND STORMWATER PROJECTS

		Weighted Scores (0-30 Scale)																				
		Water Quality/ Water Quantity Benefits							Use of Resources					Community Livability/Quality of Life/Sustainability								
		Ability to reduce P Load	Ability to Reduce Sediment Load	Ability to Reduce Bacteria Load	Ability to Reduce untreated CSOs or Wet-Weather Events @ WWTP	Potential to address Regulatory requirements	Potential to address local/neighborhood flooding or combined sewer basement backups	Addresses top priorities of stakeholder groups (i.e. reduce urban runoff, CSO reduction)	Extra Metric 2	Operations and Maintenance Intensity	Level of WQ Performance Certainty	Scaleability	Addresses more than one water quality issue	Relative Capital Cost	Visibility and/or Catalyzes Engagement and Collaboration	Ability to Integrate with Existing Projects	Accessible Green/Open Space Impacts	Socio-Economic Equity Impacts	Impacts Walkability/Bikability	Greenhouse Gas	Energy Consumption	Reduce Infrastructure Deficit/Increase Infrastructure Resiliency
Project																						
	1. WWTP P Upgrade	30	0	0	0	0	0	30	0	5	20	0	0	0	0	0	0	0	0	-25	5	0
	2. WWTP P Optimization	30	0	0	0	0	0	30	0	5	10	10	0	7.5	0	0	0	0	0	-25	5	0
	3. Combined Sewage Storage - Pedans Pier	15	15	0	30	0	0	30	0	5	20	0	15	2.5	0	5	0	0	0	0	0	0
	4. Combined Sewer Tunnel - Battery Street	15	15	0	30	0	0	30	0	5	20	0	15	2.5	0	5	0	0	0	0	0	0
	5. Distributed storage vault system - based on Tiered Flow Control	15	7.5	15	15	10	20	30	0	5	20	15	30	5	0	10	0	0	0	0	0	10
	6. Residential Rooftop Disconnection	7.5	7.5	7.5	7.5	10	5	22.5	0	10	5	20	0	10	5	0	0	2.5	0	0	0	5
	7a. Green Streets Initiative (CSS)	15	15	15	15	10	10	22.5	0	10	10	15	30	5	10	10	10	10	10	5	0	10
	7b. Green Streets Initiative (MS4)	15	15	7.5	0	0	10	15	0	10	10	15	30	5	10	10	10	10	10	5	0	10
	8a. Retrofits of Public Property (Parks, Schools, City Buildings) - CSS	15	15	7.5	7.5	10	5	22.5	0	10	10	15	15	5	7.5	15	5	7.5	5	2.5	0	10
	8b. Retrofits of Public Property (Parks, Schools, City Buildings) - MS4	15	15	7.5	0	0	5	15	0	10	10	0	15	5	7.5	15	5	7.5	5	2.5	0	10
	9. Enhanced Post-Construction Regulatory Requirements	15	15	0	15	10	5	15	0	20	10	0	15	10	5	0	0	0	0	2.5	0	10
	10. Private Property Retrofit Incentive Program	15	15	0	15	10	5	15	0	20	10	15	0	5	7.5	5	2.5	5	0	2.5	0	10
	11. Pet Poop Clean Up	7.5	0	30	0	0	0	15	0	20	5	5	0	10	7.5	0	0	2.5	0	0	0	0
	12. Dirty Driveway Mitigation	15	15	0	0	0	0	15	0	20	5	10	0	7.5	5	0	0	2.5	5	0	0	5
	13. Flow Restoration Plan BMP Implementation	7.5	22.5	0	0	10	0	15	0	20	10	5	15	2.5	5	0	2.5	0	0	0	0	0
	14. Outfall Repair	7.5	15	0	0	10	0	15	0	20	10	10	15	2.5	5	0	0	0	0	0	0	20
	15. Enhanced Street Sweeping	15	15	7.5	0	10	0	15	0	10	15	20	0	7.5	10	0	0	7.5	10	-5	0	5
	16. CIPP Lining	7.5	7.5	0	0	10	0	7.5	0	10	5	15	15	5	0	15	0	0	0	0	0	20
	17. Enhanced Catch Basin Cleaning/Pipe Cleaning	15	15	0	7.5	10	5	7.5	0	20	5	15	0	10	5	0	0	0	0	-5	0	15
18. Improved Snow Fighting (Bane Systems)	0	0	0	0	0	0	22.5	0	20	5	0	0	7.5	5	0	0	2.5	2.5	0	0	5	
19. Riparian/Stream Channel Restoration	7.5	15	0	0	10	0	15	0	10	5	0	0	5	7.5	0	5	2.5	0	0	0	10	

# GUIDE ON CHARACTERIZING THE VALUE OF WATER RESOURCES (SPRINGFIELD, MO)

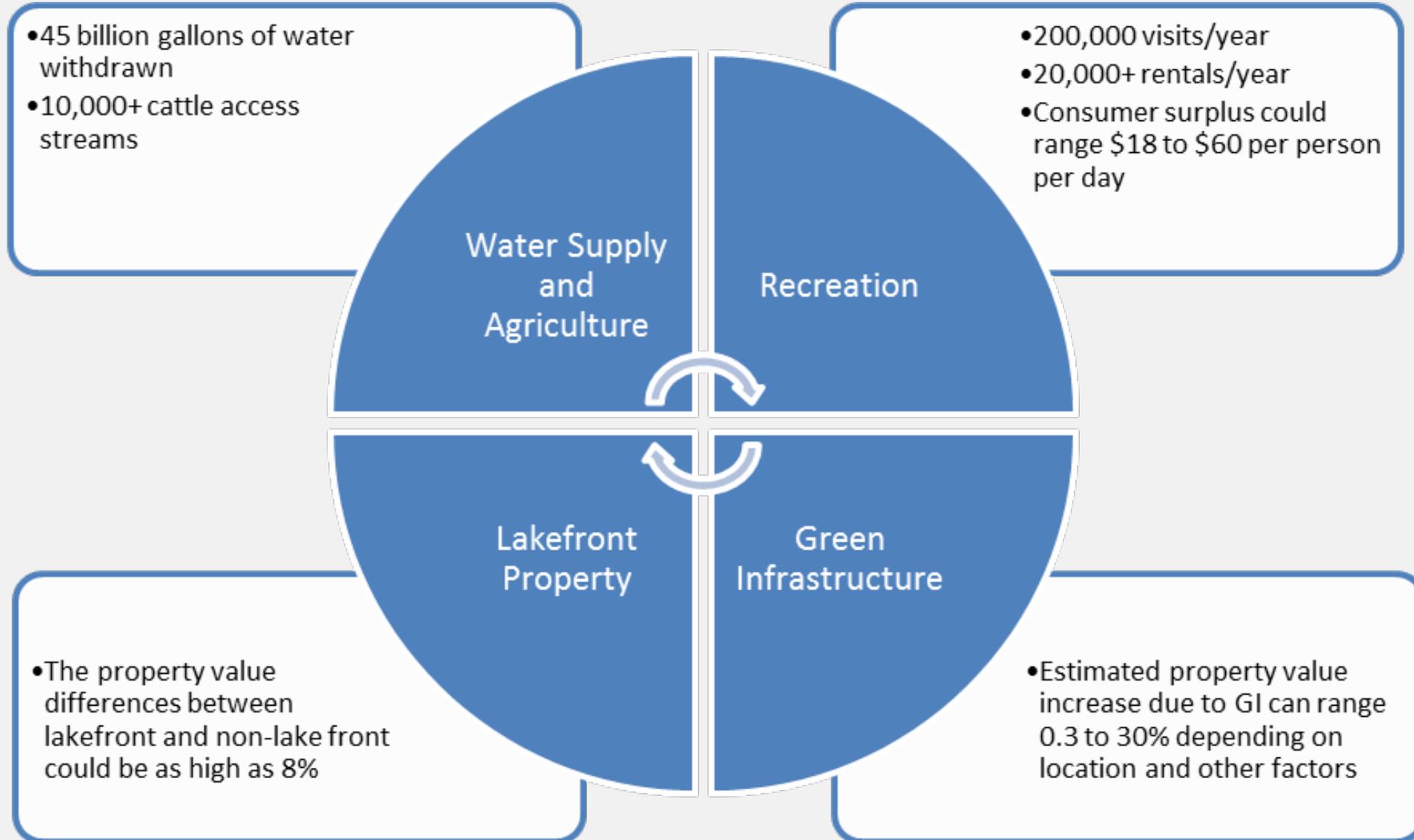
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A process for identifying, evaluating, and selecting alternatives and proposing implementation schedules

- Research into data sources (water supply users, recreational users, other info) to help quantify water users
- Literature review on the value of water resources (recreational, property) and co-benefits (such as green jobs, property values, and other benefits)
- Information used to support estimates of Sustainable Return on Investments, which helps develop priorities for an IP



# LOCAL DATA COLLECTED TO SUPPORT SPRINGFIELD IP



# STATUS OF INTEGRATED PLANS

- Burlington, VT – Using EPA tools to develop integrated plan
- Durham, NH – Oyster River Integrated Plan developed 2014; working with EPA on draft integrated permit language
- Santa Maria, CA – Draft “Santa Maria Integrated Plan” released April 2016
- Springfield, MO – Working on several phases of the integrated planning and developing work products; do not intend to develop a comprehensive written integrated plan report

# A Community-Based Approach to Long-Term Stormwater Planning



**Los Angeles, California**



**Milwaukee, Wisconsin**

# Background

## Communities want to:

- Protect public health by providing clean, safe water and resilient infrastructure.
- Make smart investments in water systems that promote economic development and attractive communities.



# OUR EFFORTS: A THREE PRONGED APPROACH



## “Guide”

Draft Guide for Long-term Stormwater Planning

Outline key elements and process for developing long-term stormwater plans so communities invest in development that aligns with their community identity, sustainability and resiliency to reduce costs.



## “Toolkit”

Provide an online stormwater planning toolkit to help communities develop long-term stormwater plans

Post online for all communities to utilize and view federal resources and tools that can help them develop their plans.



## “Technical Assistance”

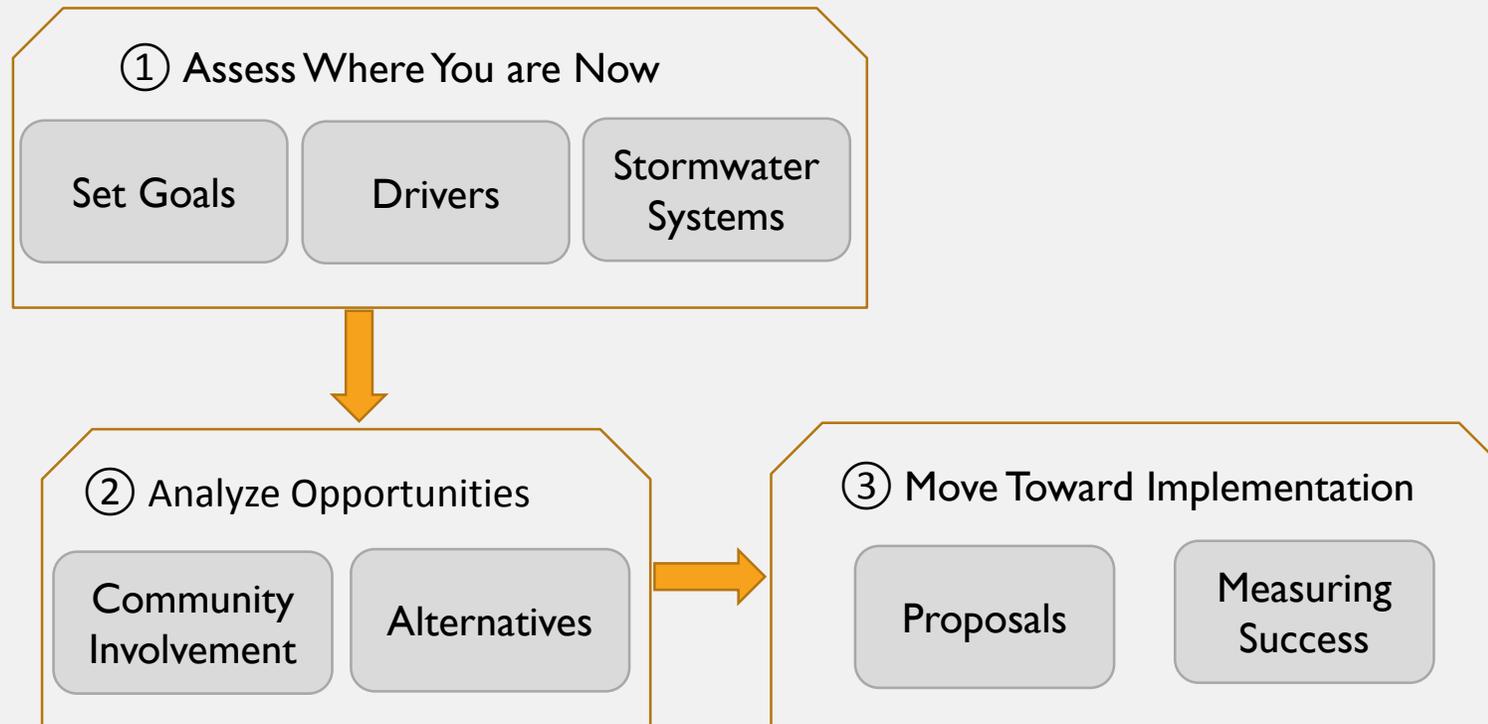
Provide Technical Assistance to Communities

Work with 5 communities to test tool and develop plans.

# Community-based Solutions for Stormwater Management: A Guide for Voluntary Long-Term Planning (Draft)

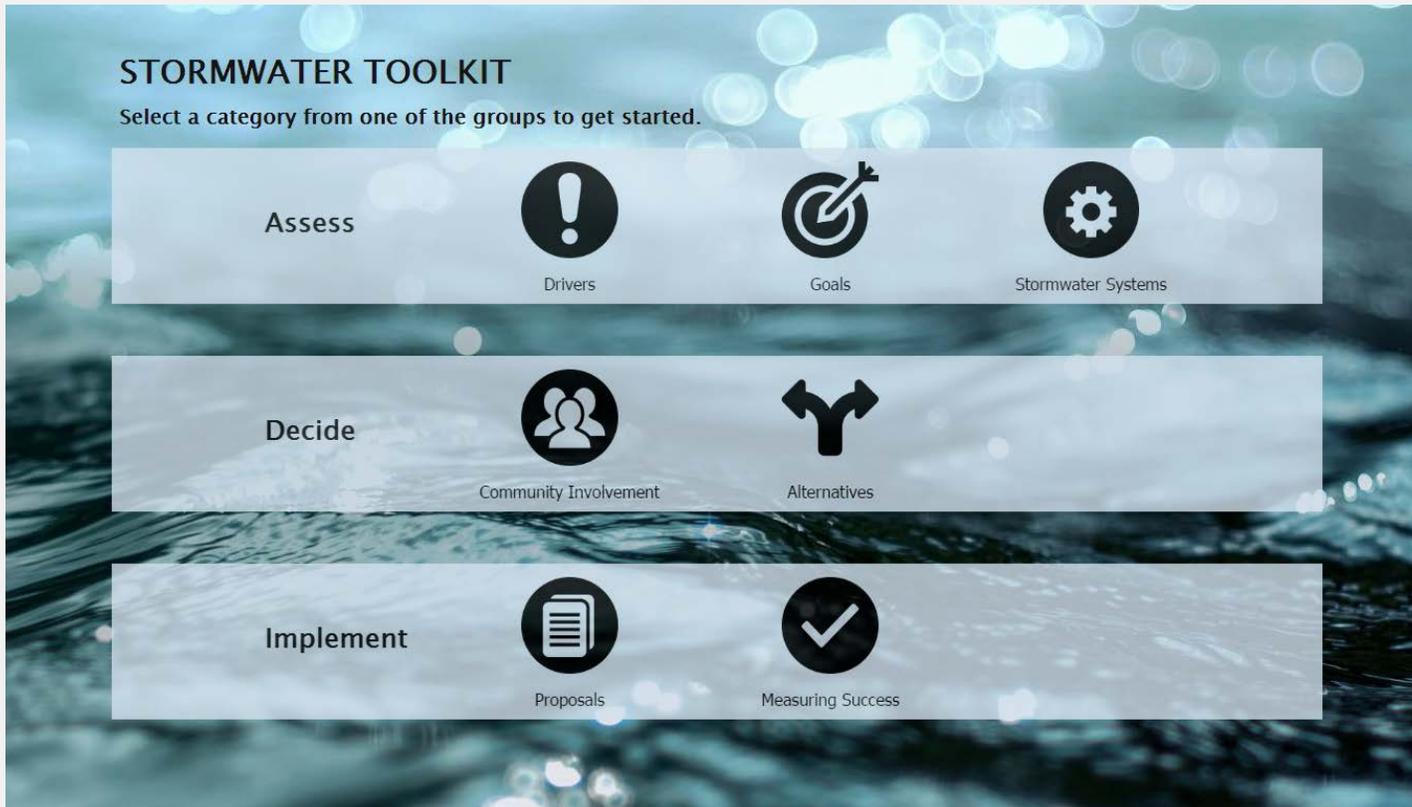
Developed based on sustained engagement with key partners including states, communities, business/industry groups, academia and nongovernmental organizations.

It includes 3 steps:



The draft guide is available online to encourage continued dialogue and feedback.

# Toolkit



The landing page of the Stormwater Toolkit begins to walk users through developing a long-term stormwater plan. It lists the "elements" of the plan that correspond with those found in the Guide.

Based on answers to a series of questions that follow, users will access the most relevant resources including:



Existing tools



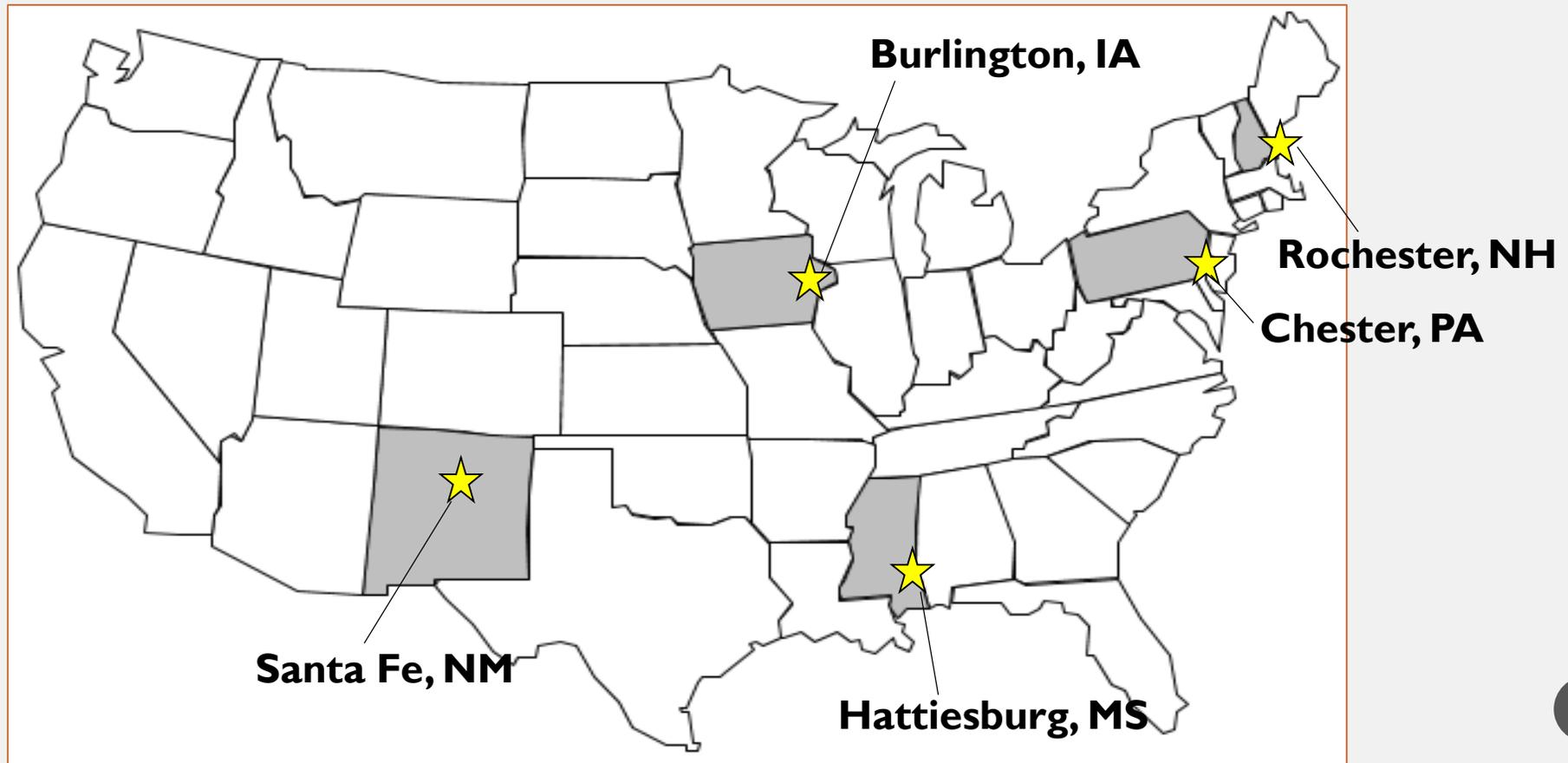
Existing documents



Funding sources

# Targeted Community Help

- EPA is working with 5 communities to develop long-term stormwater plans using the beta version of the Toolkit.
- They will pilot implementation of this approach while providing valuable feedback to improve the Toolkit prior to the public release
- Results for this assistance will serve as a resource for communities nationwide.



# FOR MORE INFORMATION



<https://www.epa.gov/npdes/stormwater-planning>

<https://www.epa.gov/npdes/integrated-planning-municipal-stormwater-and-wastewater>

Includes EPA Integrated Planning Memo and Framework, as well as FAQs and other related documents

Integrated Planning Tools based on Technical Assistance will be posted here when final

# THANK YOU

## for protecting our Nation's waters!



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