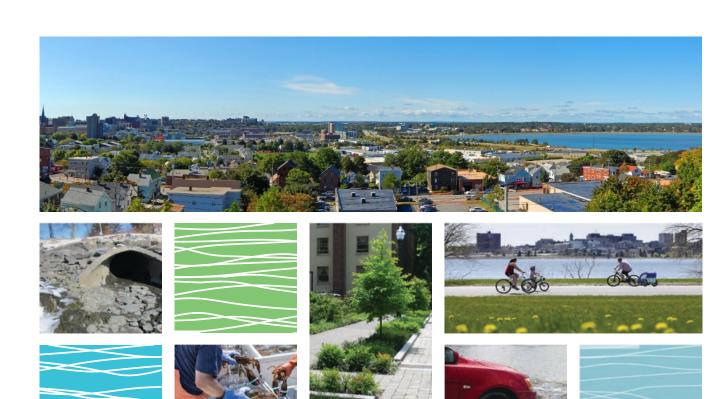
Coping with Change - Integrated Water Resources Planning in Portland Maine







AGENDA

- 1.Portland Background
- 2.Portland's Integrated Plan
- 3. Where we are Today





Background and Regulatory Context BLUE Portland investing in the



1870 Sewers constructed mostly combined

1991 **Consent Decree to**

1997 5yr CSO Update - 45 Tier I

5vr CSO Update -75 Tier II Sewer Separation **Projects**

2008

Maine MS4 General Permit



address CSO's- MeDEP





Sewer Separation Projects

- \$45M





2003





1979

EEWWTF and Interceptors Constructed

1993

CSO Abatement Master Plan Submitted

1997

EEWWTF Wet Weather Capacity Maximized -ISPS and NEPS - 80mgd 2007

CSO Tier II Implementation Plan - \$60M

2012

- •CMOM EPA Admin. Order
- •EPA Issues Integrated Planning Framework
- •EPA Issues Maine Statewide Impervious Cover TMDLs

2013

- •CSO Tier III LTCP- \$175M-15 years
- Maine MS4 General Permit(Revised)

2016

City establishes Stormwater Service Charge

2018 **Integrated Plan**



2009

EPA Issues Maine

Statewide

Bacteria TMDLs













2014

Portland CSO Permit Issued 2017

- •WWTF MePDES/WDL Permit
- •EEWWTF Aeration Upgrade \$12M
- •Citywide I/I Program
- •City conducts Bayside Adapts Study

















SOCIAL ECONOMIC ENVIRONMENTAL



PORTLAND HEALTH AND HUMAN SERVICES DEPARTMENT

PORTLAND DEPARTMENT OF PLANNING AND URBAN DEVELOPMENT

> PORTLAND PARKS, RECREATION AND FACILITIES



PORTLAND TRAILS



SAILMAINE



MAINE REAL ESTATE AND DEVELOPMENT ASSOCIATION



NEW ENGLAND ENVIRONMENTAL FINANCE CENTER



CASCO BAY ESTUARY PARTNERSHIP



CONSERVATION LAW FOUNDATION



CUMBERLAND COUNTY SOIL AND WATER CONSERVATION DISTRICT



PORTLAND CITY MANAGER'S OFFICE

PORTLAND ECONOMIC
DEVELOPMENT DEPARTMENT/
WATERFRONT ECONOMIC
DEVELOPMENT

PORTLAND REGIONAL

CHAMBER OF COMMERCE

ORTLANE



PORTLAND OFFICE OF ECONOMIC OPPORTUNITY



FRIENDS OF CASCO BAY/ CASCO BAYKEEPER



MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION



MAINE DEPARTMENT OF MARINE RESOURCES



THE WATERFRONT ALLIANCE



PORTLAND LAND BANK COMMISSION

PORTLAND DEPARTMENT OF PUBLIC WORKS/WATER RESOURCES DIVISION



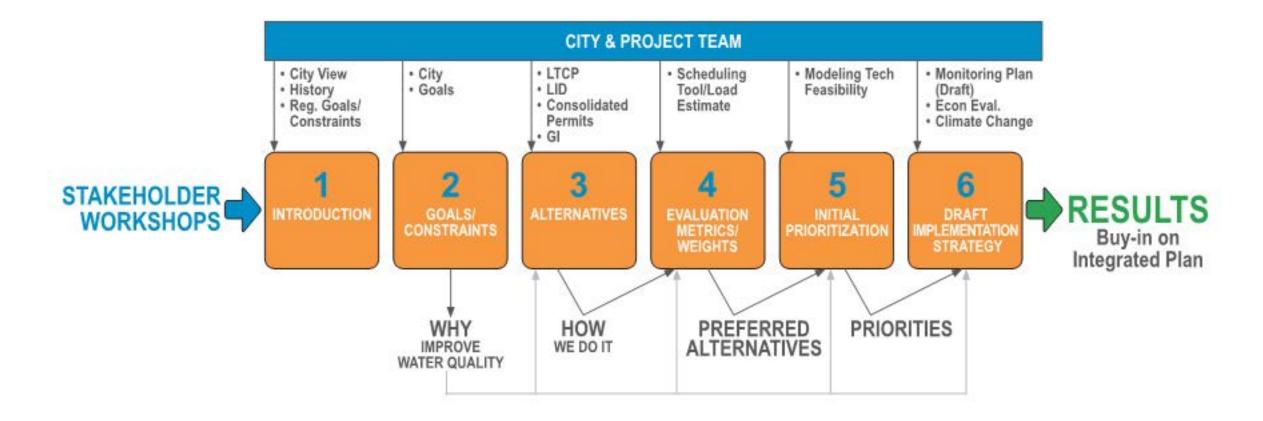
PORTLAND WATER DISTRICT



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



PROCESS: STAKEHOLDER WORKSHOPS



Stakeholder Engagement













Advisory Group

- Josh Schimmel
 Executive Director, Springfield Water and Sewer Commission
- Tom Balestero
 University of New Hampshire
- Roger Janzen
 EPA (Retired)
- Megan Moir
 Director of Water Resources, Burlington Vermont











EPA 2012 MEMO

- Element 1: A description of the water quality, human health and regulatory issues to be addressed in the plan, including:
- Element 2: A description of existing wastewater and stormwater systems under consideration and summary information describing the systems' current performance,
- Element 3: A process which opens and maintains channels of communication with relevant community stakeholders in order to give full consideration of the views of others in the planning process and during implementation of the plan.

- Element 4: A process for identifying, evaluating, and selecting alternatives and proposing implementation schedules which addresses:
- Element 5: Measuring success As the projects identified in the plan are being implemented, a process for evaluating the performance of projects identified in a plan, which may include evaluation of monitoring data, information developed by pilot studies and other studies and other relevant information, including:
- Element 6: Improvements to the Plan

Performance Metrics: 10 Year Vision

- Set Measurable Goals and Milestones
 - Themes for the Performance Metrics
- Alignment with the 10 Objectives
- Work Performed and Results Achieved

Project Milestones: Completed or show progress toward prioritized pro



Geographic Reach: Program benefits reach majority of citizens and all watersheds.

Water Quality: Receiving water quality trends show improvements.

CSO Reductions: Downward trend in rain-normalized CSO volume and activations through Integrated Plan Implementation.

Maintenance / System Performance: Reduction in CSOs and SSOs, reduction in material removed per L.F of sewer & drain structure.

Community Livability: Projects have improved quality of life in many neighborhoods. Equal access to green space and fewer water-related public health concerns.

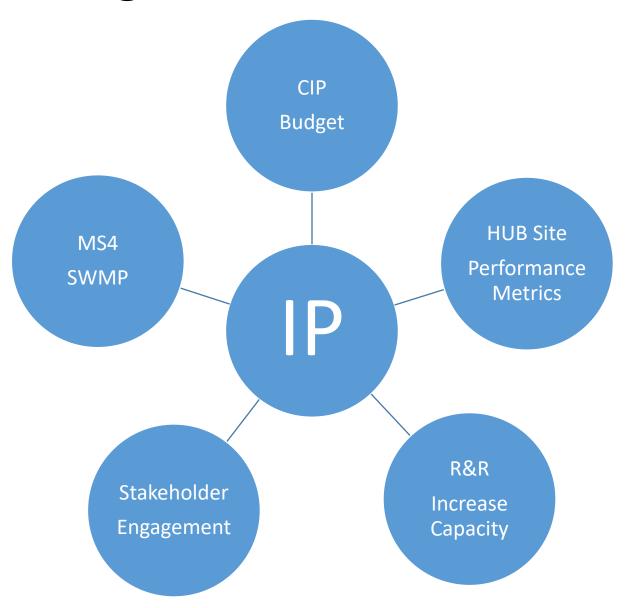
Economic Health: Balanced approach to spending to keep sewer and stormwater rates within the affordable range. Demonstrate business case for strategies, actions, and capital projects.

Ranking Results -"Heat Map"

Alternative Name Week Printed Company (1971) 3					Equal	Ranks by Stakeholder Weights												
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		B33	Canco Road Storm Drain (B33)	61	61	61	. 61	59	56	60	61	61	60	61	61	61	61	61 61



Integrated Plan in Action



Challenges

- COVID 19 Global Pandemic
- The Integrated Planning CWA Amendment
- Climate Change
- Regulatory Change
- Public Pressure/Advocacy Opposition EJ
- CSO Over-Commitment
- Aging Infrastructure
- Financing & Financial Capability
- Changing Workforce/Loss of Institutional Knowledge
- Staff Changes at Regulatory Agencies