Welcome

Steven Roy

Vice Chair, EBC Water Resources Committee

Climate Adaptation & Green Infrastructure

Service Line Manager

Ramboll
EBC Committees & Chapters

Climate Change and Air Committee
Dam Management Committee
Energy Resources Committee
Ocean and Coastal Resources Committee
Site Remediation and Redevelopment Committee
Solid Waste Management Committee
Water Resources Committee
Ascending Professionals Committee

Connecticut Chapter
New Hampshire Chapter
Rhode Island Chapter
EBC Water Resources Committee

Committee Chair
Blake Martin, Weston & Sampson, Inc.

Committee Vice-Chair
Steven Roy, Ramboll

Leadership Team
Bob Cox, Bowditch & Dewey, LLP
Betsy Mason, McLane Middleton
Caroline Hampton, VHB
Andrew Miller, CDM Smith Inc.
Thank you to our Host

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Environmental Business Council of New England
Energy Environment Economy
EBC Membership Benefits

Programs

Access

Networking
Upcoming Programs

Jan 23: NH DES Divisional Leadership Briefing
Jan 24: 12th Annual C & D Management Summit
Jan 25: Dam Management Committee Meeting
Jan 26: Energy Resources: Renewable Thermal
Feb 1: Hot Issues in Remediation
Feb 2: Rhode Island Briefing – Senator Whitehouse
Feb 6: NH Office of Strategic Initiatives Briefing
Feb 9: Innovative Technology Program – Drones
Connect with EBC

Follow EBC on Twitter and LinkedIn:

Twitter handle: @ebcne
LinkedIn: search for the EBC page and group

Follow Dan as well!

Twitter handle: @DanielKMoon
LinkedIn: Search for Daniel Moon
Final Notes

• Presentations will be posted to the EBC website
  – *Link to presentations in follow-up email*

• Get involved in EBC Chapters and Committees
  – *Join Chapter or Committee listserv*
  – *Email request to ebc@ebcne.org*

• Upcoming Programs listed on back of Agenda

• Audience Introduction

• Ask questions!
Program Introduction & Overview

Steven Roy

Program Chair & Moderator

Climate Adaptation and Green Infrastructure
Service Line Manager
Ramboll

Environmental Business Council of New England
Energy Environment Economy
MassDEP Water Programs Overview

Douglas Fine

Assistant Commissioner
Bureau of Water Resources
MassDEP
Environmental Business Council
Water Resources Committee

Briefing from the MassDEP HQ Water Programs Division Directors
January 19, 2018

Douglas Fine, Assistant Commissioner
Rebecca Weidman, Program Director, Watershed Planning
Steven McCurdy, Program Director, Municipal Services
Lealdon Langley, Program Director, Wetlands & Wastewater
Bureau of Water Resources/Boston

• Division of Watershed Management
  – Drinking Water; Water Management Act; Surface Water Quality Monitoring/Assessment/Standards

• Division of Municipal Services
  – SRF; Grants (319, 604b)

• Division of Wetlands & Wastewater
  – Wetlands; Dredge 401 WQC; NPDES; Groundwater Discharge; Title 5; Sewer
Update from MassDEP
Water Programs Division Directors

- Lealdon Langley, Wetlands & Wastewater
- Steven McCurdy, Municipal Services
- Rebecca Weidman, Watershed Management
Program Updates:
Water Quality Monitoring, Assessment & Standards
Water Management Act
Drinking Water

Rebecca Weidman
Planning for the Future: Assessment, Protection, and Restoration Targets for Massachusetts’ Surface Waters

• Renewed approach to focusing existing programs to achieve water quality goals
  – Integration
  – Prioritization
  – Assessment
  – Protection
  – Alternatives
  – Engagement
The Vision: An Opportunity

• Focus of State Water Quality Priorities
• Emphasis on Results: Restoration and Protection
• Provides Flexibility
• Provides an Opportunity for a Longer Timeframe
• Embraces Efficiencies
• Different way of Implementing CWA
• Support from EPA
New Initiatives: Water Quality Monitoring and Assessment

MassDEP initiated the following projects to better support decision making related to permitting, protection, and investments in restoration efforts across the Commonwealth.

2015:
• Phosphorus Monitoring in the Mystic River Watershed (lead by the Mystic River Watershed Association)

2016:
• The Commonwealth has dedicated $1.1 million annually to enhance MassDEP’s surface water monitoring and assessment program.
• Transition to new Data Management System. Piloting Program to Provide Data review assistance to watershed groups.
• Purchased and deployed two dissolved oxygen buoys with nitrogen sensors in Mt. Hope Bay.

2017:
• Connecticut River Flow-Monitoring Station funded by MassDEP and Springfield Water and Sewer Commission
• MassDEP began the development of monitoring guidance to help Cape Cod communities assess the impact of best management practices on the health of their waterbodies.

2018:
• Monitoring Strategy Development for Mt. Hope Bay and Taunton River Estuary and the Connecticut River (lead by Connecticut River Conservancy)
• Begin Exploration of Establishing a Statewide Fixed Site Monitoring Network with USGS.
New Initiatives: Surface Water Quality Standards

The cornerstone of the Commonwealth’s Clean Water Act program is the Surface Water Quality Standards (SWQS). SWQS are used to assess if a waterbody’s designated uses are met and to derive effluent limits in NPDES permits. MassDEP is in the process of updating the SWQS to ensure that they are clear, accurate, and establish criteria that will meet water quality goals within the Commonwealth.

2017

- Commissioned a study to assess the impacts of pH, Hardness, and Dissolved Organic Carbon on Aluminum Toxicity in Freshwater.
- Developed Protocols to Assist with Development of Site-Specific Metals Criteria.

2018

- Working with USGS to collect water quality data to support both site-specific and statewide aluminum and copper criteria. Data collection will be completed at 12 sites statewide.
- Upon the completion of the review of DO criteria in Mt. Hope Bay and the Taunton River Estuary, MassDEP will expand this review northwards.
Current Focus: South Coastal, Cape Cod, Deerfield, and Ipswich Basins

Next Basins: Housatonic, Boston Harbor, and Taunton Basins

Follow-up Projects to Petition to Condition WMA Registrations:
- Education and Outreach Campaign
- Taking a closer look at regulated and unregulated water withdrawals in the Ipswich and Parkers Basins.
Drinking Water Program: News and Priorities

• Lead and Copper Rule
• Lead in Schools Assistance Program
• Unregulated Contaminate Monitoring Rule 4 (UCMR4) launches this year
• Website Redesign
• EEA Data and Permit Portal
The State Revolving Fund Loan Program in Massachusetts

Steve McCurdy
Purpose: Finance infrastructure and other projects to protect or improve public health, water quality and environmental resources.

Rate: Standard 2% Interest Loans. Ch 259 Acts 2014 provides for additional subsidies, subject to appropriation.

Term: Standard 20 year, up to 30 years with a MA Registered P.E. certification of extended useful life of the asset.

Eligible Borrowers: cities, towns, public water suppliers, and wastewater districts.

Program capacity: CWSRF • $400-$450M annually

DWSRF • $100-$130M annually
SRF Funding

- Federal Capitalization Grant
  20% required State match
  Interest subsidy provided by Commonwealth

- CWSRF established 1989
  - $1.511B Federal Cap Grant
  - $6.24 B in loans financed through 2016
  - 413% Leveraging of federal investment

- DWSRF established 1997
  - $526M Federal Cap Grant
  - $1.758B in loans executed through 2014
  - 334% Leveraging of federal investment
Congress appropriates annual grants to states, and state must match the grant .20¢/$1. Federal & state money goes into SRF and is available for loans or as security for Bonds. When not used for loans or Bonds, must be returned to the state revolving fund.
Market rate Bonds are issued by CWT, and proceeds are used to finance local construction projects.

Federal grant and State match are used as a security on Bonds. The money sits in a Debt Service account and is available to Bond Holders if loans default.
Debt Service Reserve may earn interest that state can use for program subsidy.

CWT uses loan repayment funds + any interest from Debt Service Reserve investments + State Contract Assistance to pay the Bond Holders.

Borrower repays principle & interest to Clean Water Trust

Loan Repayment

State Loan Subsidy

Subsidy is an annual Legislative appropriation.
Revolving:

As Bond holders are paid out, a proportion of the Debt Service Reserve returns to the SRF for additional lending.

Federal requirement that SRF funds are held in perpetuity means SRF cannot be diverted by States for other purposes that what Congress intended.
The Clean Water Trust is a Massachusetts legislative creation tasked to administer the Clean Water and Drinking Water State Revolving Fund Loan Programs.

Trustees:

▪ Treasurer, Receiver General of the Commonwealth
▪ Secretary, Executive Office of Administration and Finance
▪ Commissioner, Mass Department of Environmental Protection
Mass Clean Water Trust-Structure

Partner agency roles:

- ANF, provides State 20% Match from Environmental Bond (0621-1001) and annually budgets the Loan subsidy, so-called Contract Assistance (1599-0093)
- CWT, provides financial management of loans and is the official SRF Grantee
- MassDEP, administers project Selection/Oversight/Closeout
DEP Role

- Project Selection
- Project Oversight
- SRF Program compliance
- Project Closeout
SRF Project Selection Criteria

- Public Health
  - Exposures
  - Frequencies
  - Seriousness

- Environmental Impacts
  - Resource affected
  - Frequency
  - Seriousness
SRF Criteria (cont.)

- Planning for Project
  - Needs analyzed
  - Options reviewed
  - Recommended option selected

- Programmatic biases
  - Compliance and Enforcement issues
  - Regional solutions
  - Energy efficiency/renewables
  - Innovative approaches
SRF Criteria (cont.)

- Project Effectiveness
  - Reduction in violations
  - Restoration of designated use
  - Protects resources/prevents problems
MassDEP staff review applications for:

- Local borrowing authorization
- project plans and specifications
- Permit applications as necessary for project
- Federal cross-cutter requirements
- Compliance with public bidding laws
DMS staff visit project sites during construction:

- Assess progress
- Authorize payment appropriate to work completed
- Address change orders as necessary
- Inspect for compliance with American Iron and Steel requirement
- Ascertain posted wage rates as per Prevailing Wage Law (Davis Bacon)
- Conduct final inspection, authorize final payment, process project closeout documents
Annual Program Review

- Meet with DEP Program Managers
  - Review IUP results.
  - Determine whether important/priority projects scored well enough to reach IUP.
  - Identify new/emerging issues that are forecast.
  - Refine criteria to insure inclusion of priorities.
SRF Program Benefits

• Direct
• Ancillary
Direct Program Benefits

- Public Health protection
- Environmental restoration and protection
- Job creation
  - Construction
  - Engineering
  - Materials purchases
  - Equipment rentals and purchases
Ancillary Benefits of SRF

- Development opportunities from access to reliable infrastructure.
- Indirect Job creation
  - Legal - Bond Counsel (CWT and Borrowers)
  - Financial Advisors (CWT and Borrowers)
  - Investment Banking (CWT)
Massachusetts SRF Websites

- MassDEP

- Clean Water Trust
Wetlands and Wastewater Program Updates

Lealdon Langley
Status of Title 5 and Groundwater Regulatory Group
& NPDES Delegation
MassDEP’s regulatory review efforts under Executive Order 562

- Stakeholders requested MassDEP consider:
  - changes to the Title 5 regulations (310 CMR 15.00); and
  - Groundwater Discharge Permitting regulations (314 CMR 5.00).
Changes suggested by stakeholders included:

– establishing a statewide uniform code;
– revisiting/reducing design flows for single and multi-family residential;
– reducing separation to groundwater requirements for new construction with Innovative/Alternative systems;
– raising the 10,000 gpd threshold for triggering groundwater discharge permits (GWDP), and/or creating a new category between Title 5 and GWDP;
– allowing reductions in GWD facility design when holding tanks can accommodate peak flows
Changes suggested by stakeholders (cont’d)

– allowing GWD facilities to take on additional flows when they have remaining un-used capacity at full build out;

– streamlining MassDEP’s requirements for designating nitrogen sensitive areas;

– allowing leachate from composting toilets to be treated and applied as fertilizer; and

– considering additional flexibility for seasonal campgrounds that trigger GWDP thresholds.
Stakeholder Group formed in 2017

- Group has met twice, and a third meeting is scheduled for March 6, and a few sub-group discussions have occurred.

- The group is made up of 48 participants including local health officials
  - conservation commissions
  - water suppliers
  - commercial developers
  - Homebuilders
  - environmental advocates
  - environmental engineers
  - regional planning associations
  - technology vendors
Status of topics

• MassDEP is developing draft revisions to existing agency guidance that will be circulated to the stakeholder group for:
  • use of holding tanks to reduce design size
  • allowing additional tie-ins to facilities with remaining capacity

• For other suggestions, additional data needs have been identified, and MassDEP is working with stakeholders to gather that additional information, including:
  • Literature review
  • How other states have handled similar issues
  • Public health/incidence of disease considerations
  • MassDEP will continue to work with the stakeholder group this winter and spring
  • If any regulatory changes are to be pursued, then draft regulations will be released for public comment.
H2777 - Delegation of Federal NPDES Permitting Authority to MassDEP

January 19, 2018
What is NPDES?

- The **National Pollutant Discharge Elimination System (NPDES)** is a water quality program currently administered by the U.S. EPA per the federal Clean Water Act.

- **NPDES permits** are obtained by entities discharging pollutants into surface water (rivers and bays)– including municipal wastewater treatment plants and industrial facilities.
Who is impacted by NPDES?

- **MA has 230 individual NPDES permittees** (58% municipal; 42% industrial)
- **2000+ general permittees** (~250 MS4 Communities; GPs dewatering, hydroelectric, industrial stormwater, pesticides, potable water treatment etc.)
What is MassDEP proposing?

- **House Bill 2777** authorizes MassDEP to apply to the EPA to join **46 other states** in administering the NPDES program.

- Only 4 states don’t manage NPDES.

- Idaho recently submitted an application for authorization (2017) – if approved NPDES authority will transfer from the EPA July 1, 2018.
Why should MassDEP administer NPDES?

MassDEP knows Massachusetts best and has a strong track record of administering federal programs, including:

– the federal drinking water program;
– the federal hazardous waste program; and
– the federal clean air program.

MassDEP will promote science-based decisions employing holistic Integrated Water Management to provide:

– better environmental outcomes;
– timely permitting;
– enhanced technical assistance for municipalities & other permittees; and
– improved water quality monitoring.
Status of other Wastewater and Wetlands Priorities

- MS4 status
- Inflow Infiltration studies
- Cape Cod 208 plan and Watershed Permit
- Land Subject to Coastal Storm Flowage
- Precipitation Data - TP 40, Cornell Atlas & NOAA14
- Mitigation/Replication
BWR Boston Contacts

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Networking Break
Moderated Discussion

Moderator: Steven Roy, Ramboll Environ

Panelists:
- Douglas Fine, Bureau of Water Resources
- Lealdon Langley, Wetlands & Wastewater
- Steven McCurdy Municipal Services
- Rebecca Weidman, Watershed Management

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