



## Massachusetts Association of Conservation Commissions

*protecting wetlands, open space and biological diversity through education and advocacy*

January 5, 2016

Dear Conservation Commissioners:

Registration is open for **Annual Environmental Conference 2016 (AEC 2016)**, which will take place on Saturday, March 5, 2016, at the College of the Holy Cross in Worcester. The conference features twenty-four workshops and four Fundamentals for Conservation Commissioners training units for you to choose from, all led by experienced experts, all designed for conservation commissioners and staff. We have kept the attendance fee the same as last year.

Enclosed are the conference schedule and a listing and description of the workshops and Fundamentals training sessions. Also enclosed are a group registration form and an individual registration form. Please make extra copies as needed and use whichever forms you prefer to use. Please register soon.

**We received a grant for Bristol and Plymouth Counties conservation commissions. Each commission may send one commissioner to AEC 2016 at no charge, provided at least one of its other commissioners attends AEC 2016. Please register by February 26, 2016, for that to apply.**

As in past years, we expect more than 750 people to attend and more than forty companies to exhibit. There will be opportunities for you to network, see and learn about the latest technology, regulations, policies and cutting-edge issues, speak with terrific people from across the state, and hear what is being planned for wetlands and open space protection. You can start or continue taking Fundamentals units and perhaps take the remaining units you need for certification. Also, please come to opening session to help honor this year's recipients of MACC's Environmental Service Awards.

Annual Environmental Conference is your professional development conference, planned and offered by your professional association. It is where you will gain information and skills to help you serve your community and protect the environment. It also is where our conservation community from throughout Massachusetts gathers. Part of our strength as a community -- to influence legislation, regulation, and the policy decisions being made about wetlands and open space -- is the number of participants at AEC and the knowledge we share.

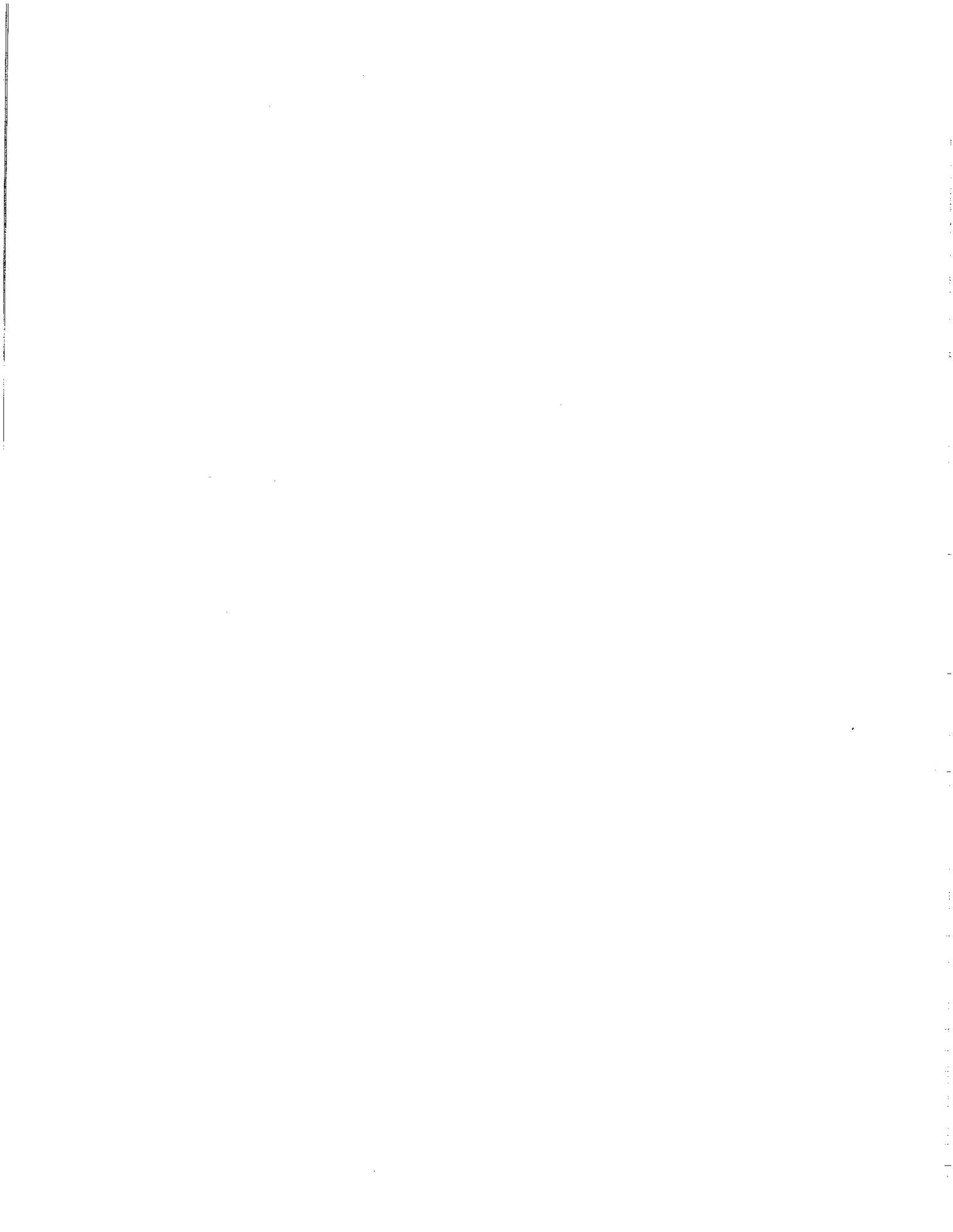
Feedback on last year's conference was very positive. Please join us for a great conference this year.

We hope to see you at Annual Environmental Conference 2016!

Sincerely,

Eugene B. Benson  
Executive Director  
eugene.benson@maccweb.org

encs.





# Annual Environmental Conference 2016 Information and Registration

Saturday, March 5 • College of the Holy Cross, Worcester

### Fees to Attend

**MACC Member\* \$115 • Government & Non-profit\*\* \$125 • Non-member \$145 • Full-time Student \$65**

Fee is per person and includes morning refreshments and lunch. \*Member fee applies to: conservation commissioners and staff when commission dues are paid or accompany this registration; and other MACC members. \*\*Other municipal officials and government agency or non-profit organization employees when fee is paid by agency or organization check.

### Notes

Advance registration is strongly recommended. Payment or purchase order should accompany registration. Register early to guarantee workshop choice. Refunds, minus a \$20.00 processing fee, will be issued only if a written cancellation is received by February 19. See inclement weather policy at [http://www.maccweb.org/edu\\_aec\\_2016.html](http://www.maccweb.org/edu_aec_2016.html)

## MACC Annual Environmental Conference 2016 Registration Form

or register online: [www.maccweb.org/edu\\_aec\\_2016.html](http://www.maccweb.org/edu_aec_2016.html)

Name \_\_\_\_\_ Email \_\_\_\_\_

Commission/Organization \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone (with area code) \_\_\_\_\_ Total Enclosed \$ \_\_\_\_\_

Method of payment:  Check enclosed  My city/town requires an invoice  
 For credit card payments, send me a request for payment through PayPal  
 I am the person attending from my commission at no charge because at least one other commissioner is a paid attendee.

### Workshop Choices

Classes fill quickly. Register early. Call 617.489.3930 with questions.

An extensive lunch buffet is provided from 11:15 a.m. to 2:00 p.m. in a separate building.

#### Fundamentals for Conservation Commissioners

Please check ONE unit in each time slot.

**10:00 a.m. - 12:30 p.m.**

Unit 104 (c0655)

Unit 202 (c0656)

**2:00 p.m. - 4:30 p.m.**

Unit 201 (c0657)

Unit 205 (c0658)

#### Workshops

WRITE WORKSHOP NUMBER  
for each session

Workshop # \_\_\_\_\_ A (10:00-11:30 a.m.)

Workshop # \_\_\_\_\_ B (1:15 -2:45 p.m.)

Workshop # \_\_\_\_\_ C (3:00-4:30 p.m.)

**Confirmations with directions will be provided when an email address is given.**

Return with payment to: MACC, 10 Juniper Road, Belmont, MA 02478





# Annual Environmental Conference 2016

## Group Registration form for Conservation Commissions

Saturday, March 5 • College of the Holy Cross, Worcester



**MACC Member\* \$115 • Government & Non-profit\*\*  
 \$125 • Non-member \$145 • Full-time Student \$65**

Fee is per person and includes morning refreshments and lunch. \*Member fee applies to: conservation commissioners and staff when commission dues are paid or accompany this registration; and other MACC members. \*\*Other municipal officials and government agency or non-profit organization employees when fee is paid by agency or organization check.

### Notes

Advance registration strongly recommended. Payment or purchase order should accompany registration. Register early to guarantee workshop choice. Refunds, inus a \$20 processing fee, will be issued only if a written cancellation is received by February 19. See inclement weather policy at:  
[http://www.macweb.org/edu\\_aec\\_2016.html](http://www.macweb.org/edu_aec_2016.html)

### Conservation Commission

Name \_\_\_\_\_ Email \_\_\_\_\_ Phone \_\_\_\_\_

Workshop Choices: (write #) Series A \_\_\_\_\_ Series B \_\_\_\_\_ Series C \_\_\_\_\_

(10:00-11:30) (1:15-2:45) (3:00-4:30)

Fundamentals MORNING (10:00-12:30) - (check which Unit)    Unit 104 \_\_\_\_\_ OR Unit 202 \_\_\_\_\_  
 Fundamentals AFTERNOON (2:00-4:30) - (check which Unit)    Unit 201 \_\_\_\_\_ OR Unit 205 \_\_\_\_\_

Name \_\_\_\_\_ Email \_\_\_\_\_ Phone \_\_\_\_\_

Workshop Choices: (write #) Series A \_\_\_\_\_ Series B \_\_\_\_\_ Series C \_\_\_\_\_

(10:00-11:30) (1:15-2:45) (3:00-4:30)

Fundamentals MORNING (10:00-12:30) - (check which Unit)    Unit 104 \_\_\_\_\_ OR Unit 202 \_\_\_\_\_  
 Fundamentals AFTERNOON (2:00-4:30) - (check which Unit)    Unit 201 \_\_\_\_\_ OR Unit 205 \_\_\_\_\_

Name \_\_\_\_\_ Email \_\_\_\_\_ Phone \_\_\_\_\_

Workshop Choices: (write #) Series A \_\_\_\_\_ Series B \_\_\_\_\_ Series C \_\_\_\_\_

(10:00-11:30) (1:15-2:45) (3:00-4:30)

Fundamentals MORNING (10:00-12:30) - (check which Unit)    Unit 104 \_\_\_\_\_ OR Unit 202 \_\_\_\_\_  
 Fundamentals AFTERNOON (2:00-4:30) - (check which Unit)    Unit 201 \_\_\_\_\_ OR Unit 205 \_\_\_\_\_

Name \_\_\_\_\_ Email \_\_\_\_\_ Phone \_\_\_\_\_

Workshop Choices: (write #) Series A \_\_\_\_\_ Series B \_\_\_\_\_ Series C \_\_\_\_\_

(10:00-11:30) (1:15-2:45) (3:00-4:30)

Fundamentals MORNING (10:00-12:30) - (check which Unit)    Unit 104 \_\_\_\_\_ OR Unit 202 \_\_\_\_\_  
 Fundamentals AFTERNOON (2:00-4:30) - (check which Unit)    Unit 201 \_\_\_\_\_ OR Unit 205 \_\_\_\_\_

Name \_\_\_\_\_ Email \_\_\_\_\_ Phone \_\_\_\_\_

Workshop Choices: (write #) Series A \_\_\_\_\_ Series B \_\_\_\_\_ Series C \_\_\_\_\_

(10:00-11:30) (1:15-2:45) (3:00-4:30)

Fundamentals MORNING (10:00-12:30) - (check which Unit)    Unit 104 \_\_\_\_\_ OR Unit 202 \_\_\_\_\_  
 Fundamentals AFTERNOON (2:00-4:30) - (check which Unit)    Unit 201 \_\_\_\_\_ OR Unit 205 \_\_\_\_\_

Total Amount \$ \_\_\_\_\_

Method of payment:

Check enclosed

The city/town requires an invoice

For credit card payments, send us a request for payment through PayPal.

Please mail completed form with checks payable to MACC to:

MACC  
 10 Juniper Road  
 Belmont, MA 02478





---

# ANNUAL ENVIRONMENTAL CONFERENCE 2016

---

Conference Schedule  
Workshops Descriptions

Saturday, March 5, 2016  
at The College of The Holy Cross, Worcester, MA  
MASSACHUSETTS ASSOCIATION OF CONSERVATION COMMISSIONS  
10 Juniper Road / Belmont, MA 02478  
[www.maccweb.org](http://www.maccweb.org)



## Annual Environmental Conference 2016 Schedule

8:00 AM	Registration Opens Exhibit Hall Opens Morning Refreshments Available
8:45 AM - 9:45 AM	Opening Session Annual Business Meeting Environmental Service Awards Keynote Address
10:00 AM - 12:30 PM	Fundamentals Units 104 and 202
10:00 AM - 11:30 AM	Workshop Series A
11:15 AM - 2:00 PM	Lunch
1:15 PM - 2:45 PM	Workshop Series B
2:00 PM - 4:30 PM	Fundamentals Units 201 and 205
3:00 PM - 4:30 PM	Workshop Series C
4:30 PM - 5:15 PM	President's Reception and Raffle



## ANNUAL ENVIRONMENTAL CONFERENCE 2016

### Workshops Schedule at a Glance

Series A 10 AM - 11:30 AM	Series B 1:15 PM - 2:45 PM	Series C 3 PM - 4:30 PM
1. Cold Water Fisheries: Protecting, Enhancing, and Regulating a Critical Resource Area	9. Mapping Priority Parcels for Conservation: A New Tool You Can Use	17. Protecting Biodiversity through Conservation Planning
2. What Conservation Commissions Can Do to Regulate Activities in Land Subject to Coastal Storm Flowage	10. StormSmart Properties Fact Sheet Series: Strategies to Reduce Coastal Erosion and Storm Damage while Minimizing Impacts	18. Making River Buffer Restoration Work for Water Quality and Habitat
3. Culvert Replacement Implementation: Understanding the Latest Regulatory Changes and Key Aspects of a Successful Replacement	11. Right-Sizing Monitoring for Stream Barrier Removal Projects	19. Interactive Questions and Answers for All Things Conservation
4. Protecting Massachusetts Vernal Pools	12. Solar Arrays: Permitting Issues for Commissions to Consider	20. It's Raining Cats and Dogs! How Recent Precipitation Changes May Affect Wetlands Regulation
5. How to Run an Efficient Conservation Office: Getting More from Your Limited Time	13. The Habits of Highly Effective Conservation Commissions	21. Conservation Commissions: Front Line in Fighting Climate Change
6. Greening Your Community with LID: Saving Land, Water, and Money	14. An Evaluation of Green Infrastructure in a Traditional New England Village	22. Natural Gas Pipelines: The Role of Conservation Commissions
7. Effective Wetlands Enforcement	15. Commissions Behaving Badly: Lessons in Legal Liability	23. Culvert Assessment: The First Step toward Restoring River and Stream Continuity
8. Massachusetts Wildlife Climate Action Tool: Inspiring Local Adaptation on the Ground	16. Understanding the Science, Design, and Use of Fluvial Erosion Hazard Maps in MA	24. Interpreting FEMA Flood Insurance Rate Maps & Studies and MA Coastal A Zone Maps

### Fundamentals for Conservation Commissioners Schedule at a Glance

10 AM - 12:30 PM	2 PM - 4:30 PM
Unit 104: Wetland Functions and Values	Unit 201: Getting Home Before Midnight: How to Run an Effective Meeting
Unit 202: Protecting Wildlife Habitat	Unit 205: Effective Erosion and Sediment Control



**Annual Environmental Conference 2016  
Workshop Descriptions  
and  
Fundamentals for Conservation Commissioners Units Content**

**Workshop Series A  
10:00 a.m.—11:30 a.m.**

**1. Cold Water Fisheries: Protecting, Enhancing, and Regulating a Critical Resource Area**

The Massachusetts Division of Fisheries and Wildlife recently published a data layer on MassGIS that allows users to determine the presence of coldwater resources (i.e., habitat for trout and other cold water species). This workshop will provide an overview on: 1) what are cold water resources; 2) how to use the new data layer when reviewing projects (e.g., storm water options and project design considerations); 3) how to use the data as a Wetlands Protection Act regulator; and, 4) innovative stormwater, connectivity, and stabilization techniques for cold water fisheries.

Speakers: David Paulson, Endangered Species Review Biologist, Natural Heritage and Endangered Species Program, Massachusetts Division of Fisheries and Wildlife  
Jason Stolarski, Fisheries Biologist, Fisheries Program, Massachusetts Division of Fisheries and Wildlife  
Timothy Dexter, Environmental Analyst, Massachusetts Department of Transportation: Highway Division Environmental Section

**2. What Conservation Commissions Can Do to Regulate Activities in Land Subject to Coastal Storm Flowage**

Land Subject to Coastal Storm Flowage (LSCSF) is listed as an area subject to protection under the Regulations, as well as under the Act. Each area subject to protection is presumed to be significant to one or more interests of the Act. Therefore, although not explicitly stated in the regulations, and unless it can be overcome, conservation commissions can assume that LSCSF is significant to the interests of storm damage prevention and flood control because of its inherent functions. This workshop will cover the beneficial functions and types of activities that interfere with those functions. The workshop will also summarize MassDEP's work with a Technical Advisory Committee to evaluate this issue.

Speakers: Rebecca Haney, CFM, Coastal Geologist, Mass Office of Coastal Zone Management  
Lealdon Langley, Director, MassDEP Wetlands Program  
Timothy Jones, Presiding Officer, MassDEP Office of Appeals and Dispute Resolution

**3. Culvert Replacement Implementation: Understanding the Latest Regulatory Changes and Key Aspects of a Successful Replacement**

Undersized culverts disrupt natural stream processes and obstruct the movement of fish and other aquatic organisms. For local road managers, undersized culverts often pose public safety risks, due to culvert failure, road washouts or flooding during storms. This workshop will cover: 1) the recent WPA regulatory changes and interpretation of "maximum extent practicable;" 2) typical costs of culvert replacements; and 3) the basic steps conservation commissioners, consultants, and DPWs can take to implement successful projects meeting MA Stream Crossing Standards. Attendees will obtain a detailed understanding of how to work with their local DPWs to simplify and get the most out of a culvert replacement project.

Speakers: David Cameron, PWS, Chief of Wetlands & Waterways Program, MassDEP-Western Regional Office  
Tim Chorey, Stream Continuity Specialist, Division of Ecological Restoration, MA Dept. of Fish & Game

#### **4. Protecting Massachusetts Vernal Pools**

Vernal pools are an important component of healthy ecosystems across the state, and they receive a host of legal protection under federal, state, and local wetland regulations. Their ecological functional values are at the root of why we protect them; and their variety, temporary nature, and fluctuations are at the root of much confusion over how we protect them. We will explore and explain both their function and best practices for their protection. This workshop will be geared to an audience already familiar with vernal pool certification methodology.

Speakers: Matthew R. Burne, Walden Woods Project  
Leo P. Kenney, Vernal Pool Association

#### **5. How to Run an Efficient Conservation Office: Getting More from Your Limited Time**

Learn about administrative systems, forms, and techniques to simplify the myriad responsibilities that can eat up your time. Discussion will focus on establishing efficient timelines, filing systems, agendas, minutes, and regulatory correspondences. New technologies for information management and sharing will be presented. Come away with a compendium of useful templates and forms to simplify your professional life in the conservation office.

Speaker: Jennifer Steel, Senior Environmental Planner, Newton; MACC Director

#### **6. Greening Your Community with LID: Saving Land, Water, and Money**

This workshop takes a fresh look at Low Impact Development (LID) and Green Infrastructure (GI) through the lens of multiple fiscal and other benefits to municipalities. It presents facts and figures on how LID and GI can assist communities to protect wetlands and water resources, reduce flooding and stormwater management costs, minimize infrastructure and maintenance costs, improve quality of life, and increase property values. The workshop will address how municipal departments including conservation, planning, and public works can harmonize their roles by applying cost-effective LID and GI and will include information resources on financing, financial incentives, grants and technical assistance.

Speakers: Scott Horsley, Principal, Horsley Witten Group, Inc.  
Stefanie Covino, Project Coordinator, Shaping the Future of Your Community, Mass Audubon

#### **7. Effective Wetlands Enforcement**

Addressing wetlands violations can be a confusing and frustrating task for conservation commissions and staff. What are the enforcement options under the Wetlands Protection Act and local bylaws/ordinances, what procedures are required for each option, and which option will be most effective in achieving compliance? This workshop will explain the options and procedures in a dynamic and practical way, using hypothetical scenarios based on fact. Attendees will receive helpful handouts and leave equipped with the tools to carry out effective enforcement.

Speakers: Rebekah Lacey, Esq., Miyares and Harrington, LLP, MACC Director  
Cynthia O'Connell, Conservation Agent, Town of Canton, MACC Director

#### **8. Massachusetts Wildlife Climate Action Tool: Inspiring Local Adaptation on the Ground**

The Massachusetts Wildlife Climate Action Tool is designed to inform and inspire local land conservation and management decisions to protect the Commonwealth's natural resources in a changing climate. With this tool, conservation commissioners can: 1) access information on climate change impacts and vulnerabilities of fish and wildlife species and associated habitats; 2) explore adaptation strategies to maintain resilient natural communities, such as replacing culverts, amending local bylaws, and adapting forestry practices and land protection strategies based on location and interest. This workshop will provide an overview of the Climate Action Tool, discuss on-the-ground uses with participants, and seek input on additional content to include as work continues to improve the Tool.

Speakers: Kathleen Theoharides, Consultant; Conservation Commissioner, Town of Grafton

**Workshop Series B**  
**1:15 p.m.—2:45 p.m.**

**9. Mapping Priority Parcels for Conservation: A New Tool You Can Use**

This workshop will introduce and demonstrate a new web-based tool developed to allow Massachusetts conservationists to rapidly identify specific parcels to protect to achieve their land protection goals. The tool prioritizes land protection opportunities by synthesizing multiple state-of-the-art data sets: biodiversity (BioMap2), climate change resilience (based on The Nature Conservancy modeling), proximity to existing conservation land, size of parcel, and wildlife connectivity. The workshop will provide practical tools for conservation commissions to conduct targeted open space planning and focus limited municipal resources.

Speakers: Jeff Collins, Director of Ecological Management, Mass Audubon  
Andy Finton, Conservation Programs Director, The Nature Conservancy

**10. StormSmart Properties Fact Sheet Series: Strategies to Reduce Coastal Erosion and Storm Damage while Minimizing Impacts**

As part of the StormSmart Coasts program, the Massachusetts Office of Coastal Zone Management (CZM) developed StormSmart Properties fact sheets to give coastal property owners important information on a range of measures that can effectively reduce erosion and storm damage while minimizing impacts to shoreline systems. Fact sheets are currently available on a variety of techniques, such as artificial dunes and dune nourishment and sand fencing, among others. The fact sheets provide significant detail regarding where each technique is appropriate, the benefits and impacts relative to other options, permitting and regulatory standards, costs, and maintenance requirements, and detailed design considerations highlighting the latest in progressive, plant-focused bioengineering techniques to minimize adverse impacts and ensure a successful project. Learn about how to use the fact sheets and about best management practices for new fact sheets in development, including repair and reconstruction of seawalls and revetments and new guidance for bio-engineering projects.

Speakers: Rebecca Haney, CFM, Coastal Geologist, Mass Office of Coastal Zone Management  
Seth Wilkinson, MALD, President, Wilkinson Ecological Design, Inc.

**11. Right-Sizing Monitoring for Stream Barrier Removal Projects**

Removing dams and replacing undersized culverts can have extraordinary benefits for rivers and streams, as well as the people and wildlife that use them. Once a restoration project is completed, how do you know that it has had the intended effects? As these projects become more common, conservation commissions are increasingly involved in shaping how to evaluate success. This workshop will discuss several sources for guidance on monitoring barrier removal projects and how monitoring fits into the new Wetlands Protection Act regulations. The presenters will also share examples from their practice.

Speakers: Nick Wildman, Restoration Specialist, Div. of Ecological Restoration, MA Dept. of Fish & Game  
Sara Grady, PhD., South Shore Regional Coordinator for MassBays; Watershed Ecologist for the North and South Rivers Watershed Association

**12. Solar Arrays: Permitting Issues for Commissions to Consider**

More and more proposals for solar arrays within wetland resource areas are being presented to conservation commissions and MassDEP. This workshop will provide an overview, examples, case studies and a discussion of the DEP Wetlands Regulatory and Policy position about this emerging topic. The presentation will include: 1) a discussion of placement of arrays, construction and maintenance of roadways within wetland resource areas, and their buffer zones; 2) MassDEP's position on tree cutting within BVW to reduce shading of solar panels and on stormwater management

requirements; and 3) existing government incentives for the construction of panels, panel efficiency, technical siting requirements, and engineering issues.

Speakers: Lealdon Langley, Director, MassDEP Wetlands Program  
Michael Howard, PWS, CWS, Principal & Manager, Ecological Sciences Group, Epsilon Associates, Inc.;  
MACC Director

### **13. The Habits of Highly Effective Conservation Commissions**

An effective conservation commission gets its business done, works collegially to engage the strengths of each member, and is respected within its community. This interactive workshop is designed to help you identify and prioritize ways in which you can strengthen the work of your commission. We will address perennially challenging topics such as effective group decision-making, working with dominant and disengaged board members, setting expectations and engaging new members, rotating roles, and developing a proactive annual work plan. We will also talk about what to do when a commission member (or staff) is behaving badly. Depending on the topics brought by participants we may also touch on developing effective relationships between board and staff, strengthening relationships with other boards and departments (including appointing authorities), and managing agendas to shorten meetings. Participants will come away with practical suggestions for improving the effectiveness of their commissions' work.

Speakers: Kathy Sferra, Conservation Coordinator, Town of Stow  
TBD

### **14. An Evaluation of Green Infrastructure in a Traditional New England Village**

This workshop will explore the challenges of implementing green infrastructure within a village redevelopment project, focusing on the Route 149 (Cotuit Road) corridor within Marstons Mills, Barnstable, MA. Following a brief presentation, participants will be asked to put sustainability planning and design into action with a corridor re-design for a traditional New England Village. This interactive workshop will require participants to balance stormwater management with village redevelopment through the incorporation of green infrastructure practices in a Complete Street design.

Speakers: Brian Kuchar RLA, P.E., Senior Landscape Architect, Horsley Witten Group, Inc.  
Jo Anne Miller Buntich, Director, Growth Management Department, Town of Barnstable

### **15. Commissions Behaving Badly: Lessons in Legal Liability**

You're worried and confused about possible civil rights violations, jurisdiction limits, legal violations, conflicts of interest, illegal public meetings, unfair board procedure, trespass on private property, and maybe even risky business by certain members of your commission. This workshop will confirm your worst fears as well as eliminate your unjustified worries by looking at actual cases which commissions have lost in court. Learn some painful lessons from mistakes made by others. When is your enforcement of laws too aggressive? When is your application of regulations too strict? When do your permit conditions go over the line? How much discretion does the law give you to make decisions? What if you rely on motherhood and apple pie instead of science? What if you injure or damage someone by being careless? What if you deprive someone of due process of law? What if a denial constitutes an unconstitutional taking without compensation? How should your commission comport itself to avoid or minimize such liabilities?

Speaker: Gregor I. McGregor, Esq., McGregor & Legere, PC; MACC Director

### **16. Understanding the Science, Design, and Use of Fluvial Erosion Hazard Maps in MA**

Fluvial erosion and deposition during riverine flood events are consistently the costliest natural hazards each year in parts of Massachusetts. The Commonwealth has not provided landowners, zoning boards, or conservation commissions with the necessary, reliable, and science-based tools to understand and manage these hazards. A Massachusetts-specific fluvial geomorphology task force – led by UMass and MA state agency scientists – has created a series of pilot fluvial erosion hazard maps for rivers throughout Western Massachusetts. Unlike Vermont, these maps are not yet required to manage land adjacent to rivers in the Commonwealth; and yet municipalities are requesting the information be made available.

This workshop will (1) describe the science behind current fluvial erosion hazard maps in MA; (2) describe how landowners, zoning boards, and conservations commissions may use the maps to understand fluvial hazards; and (3) discuss the current and future legal barriers and opportunities to utilizing fluvial erosion hazard maps to manage land adjacent to rivers in Massachusetts.

Speakers: Christine Hatch, Ph.D., Extension Assistant Professor, Dept. of Geosciences, University of Massachusetts at Amherst  
Benjamin P. Warner, Ph.D., Postdoctoral Researcher, Dept. of Geosciences, University of Massachusetts at Amherst

**Workshop Series C**  
**3:00 p.m.—4:30 p.m.**

**17. Protecting Biodiversity through Conservation Planning**

Strategic conservation planning is a crucial tool for protecting biodiversity, from rare species to unique natural communities. This workshop will provide an overview of the MA Division of Fisheries and Wildlife's Natural Heritage and Endangered Species Program (NHESP) and its conservation planning process. NHESP staff will discuss how it applies conservation planning tools to land protection, habitat management, and regulatory review under the Massachusetts Endangered Species Act and the Wetlands Protection Act regulations.

Speakers: Jesse Leddick, Endangered Species Review Biologist, Natural Heritage & Endangered Species Program, MA Division of Fisheries and Wildlife  
Sarah Haggerty, Chief of Information and Program Development, Natural Heritage & Endangered Species Program, MA Division of Fisheries and Wildlife  
Caren Caljouw, Habitat Biologist, MA Division of Fisheries and Wildlife

**18. Making River Buffer Restoration Work for Water Quality and Habitat**

How do you decide where to restore or protect lands along rivers to make the greatest difference for water quality and habitat? How can you protect or better manage the forested lands along your rivers? The first part of this workshop provides a case study of how river buffer areas were selected for protection and restoration in a collaborative project in the Merrimack watershed funded by the US Forest Service – from the landscape-scale to specific site selection; the second part highlights how towns and conservation commissions can restore or protect forested river buffers through conservation, management, and bylaws. We will highlight lessons learned in the selection of river buffer areas in a watershed and a process for moving forward.

Speakers: Caroly A. Shumway, Ph.D., Executive Director, Merrimack River Watershed Council  
Alan Futterman, Land Programs and Outreach Director, Nashua River Watershed Association  
Karen Bennett, Extension Forestry Professor and Specialist at University of New Hampshire Cooperative Extension

**19. Interactive Questions and Answers for All Things Conservation**

Bring your difficult questions to a round table discussion with colleagues from across the state for a peer-moderated exploration of issues commissions are facing. This will be a lightly moderated, informal, open discussion for sharing ideas, questions, and answers on all topics conservation commission. This inaugural "roundtable discussion" could include such diverse topics as basic roles and responsibilities, finances, interpersonal relations, record keeping, divisions of labor, and balancing the big picture. Participants are encouraged to suggest a topic or question on the message board at the conference, or simply come to the session with a question or example to discuss. Experienced agents and assistants will help guide the discussion.

Speakers: Jennifer Carlino, Conservation Director, Town of Norton; President, Massachusetts Society of Municipal Conservation Professionals; MACC Director  
Jennifer Steel, Senior Environmental Planner, Newton; MACC Director

## **20. It's Raining Cats and Dogs! How Recent Precipitation Changes May Affect Wetlands Regulation**

Evidence is mounting that the historic precipitation and streamflow frequency and intensity data is now outdated due to changes in natural precipitation and streamflow patterns possibly driven by climate change. To address these changes affecting wetland resources, MassDEP is examining options to revise the methodology currently required by the wetland regulations, which may affect the extent of Bordering Land Subject to Flooding (BLSF), and the sizing of culverts and stormwater management structures. This workshop will compare the current methodology with the new precipitation frequency atlases developed by the National Oceanic and Atmospheric Administration (NOAA) and Northeast Regional Climate Center (NRCC) at Cornell University, as well as new streamflow frequency information published by the U.S. Geological Survey (USGS), and discuss possible options for incorporating this new information into the wetland regulations.

Speakers: Thomas Maguire, Regional Coordinator, MassDEP Wetlands Program  
TBD

## **21. Conservation Commissions: Front Line in Fighting Climate Change**

By permitting and implementing land protection and restoration projects at the local level we can help to remove carbon from the atmosphere and reverse global warming. Conservation commissions have an important role they can play, including teaching the science in decision-making; linking land conservation, wetlands protection, and ecological restoration; enforcing strict application of mitigation/replication requirements and respect for hydrology; and long-term monitoring of project sites to ensure that biodiversity and ecosystem processes (including carbon, water, and nutrient cycling) are maintained. Case studies that failed to apply these principles will be examined, and climate-friendly alternative approaches will be discussed. Conservation commissioners will learn how to be climate-savvy and sustain biodiversity and ecosystem values in their administration of the Wetlands Protection Act.

Speakers: Sharon McGregor, Consultant on Biodiversity and Climate; Board Member, Biodiversity for a Livable Climate  
Jim Laurie, Restoration Ecologist, Biodiversity for a Livable Climate

## **22. Natural Gas Pipelines: The Role of Conservation Commissions**

There are numerous natural gas pipelines being proposed for Massachusetts that are before the Federal Energy Regulatory Commission (FERC). This workshop will take a look at the techniques of gas pipeline construction and potential impacts on wetlands and open space, provide information on the role of conservation commissions under the Wetlands Protection Act and local wetland bylaws in permitting those pipelines (that may have federal preemption of some state and local requirements), and the role MassDEP intends to play in the permitting process.

Speakers: Eugene Benson, Executive Director, MACC  
Lealdon Langley, Director, MassDEP Wetlands Program  
TBD

## **23. Culvert Assessment: The First Step toward Restoring River and Stream Continuity**

Culverts often degrade rivers and streams by blocking the movement of fish and other aquatic organisms. Culvert replacement offers excellent opportunities for enhancing stream connectivity, either as mitigation projects or proactive restoration. However, there are so many road-stream crossings in Massachusetts that it is essential that scarce restoration dollars be targeted at sites with the highest restoration potential. Culvert assessment is the first step in determining which sites in your community or watershed should be priorities for culvert replacement. Massachusetts is part of a 13-state program, the North Atlantic Aquatic Connectivity Collaborative (NAACC), providing an assessment protocol and support for organizations and communities engaged in the assessment of road-stream crossings.

Speakers: Scott Jackson, Extension Associate Professor, UMass Amherst; Conservation Commissioner, Town of Whately; MACC Officer  
Carrie Banks, Regional Planner, Division of Ecological Restoration, MA Department of Fish and Game

#### 24. Interpreting FEMA Flood Insurance Rate Maps & Studies and MA Coastal A Zone Maps

Local officials are charged with making decisions regarding development in floodplains, which requires review and interpretation of the FEMA Flood Insurance Rate Maps (FIRMs) and Flood Insurance Studies (FISs). Because of the complexity of review, officials may misinterpret the data and arrive at incorrect flood zone delineations. To address this problem, the Massachusetts Office of Coastal Zone Management (CZM) and the Massachusetts Department of Conservation and Recreation (DCR) Flood Hazard Management Program have produced a guidance document to improve the ability of local and state officials to use and interpret FIRMs and FISs correctly. CZM and DCR have also produced the Massachusetts Coastal A Zone Maps to accurately depict the Coastal A Zone based on current FEMA guidance to facilitate implementation of new requirements for Coastal A Zones in the 9<sup>th</sup> Edition of the State Building Code. This workshop will introduce and describe how to use those important resources.

Speakers: Rebecca Haney, Coastal Geologist, Massachusetts Office of Coastal Zone Management  
TBD

#### Fundamentals for Conservation Commissioners

10:00 a.m. – 12:30 p.m.

**Unit 104: Wetland Functions and Values**

Content: Common vegetated wetlands in Massachusetts; differences between the scientific and regulatory definitions of wetlands; functions, characteristics, and watershed context of wetlands; performance standards; and buffer zones

Instructor: Ingeborg Hegemann, Vice President, BSC Group; Conservation Commissioner, Town of Stow

**Unit 202: Protecting Wildlife Habitat**

Content: Presumption of significance for wildlife habitat; protecting habitat for rare wetlands wildlife; protections for vernal pool habitat; wildlife habitat evaluations; determining if a project will have significant adverse impacts on wildlife habitat

Instructor: Scott Jackson, Extension Associate Professor, University of Massachusetts Amherst; Conservation Commissioner, Town of Whately; MACC Officer

2:00 p.m. - 4:30 p.m.

**Unit 201: Getting Home Before Midnight: How to Run an Effective Meeting**

Content: Meeting preparation; participants and their interests; group dynamics; recordkeeping; Public Records Law; communication techniques

Instructor: Nathaniel Stevens, Esq., Senior Associate, McGregor & Legere, P.C.; Conservation Commissioner, Town of Arlington

**Unit 205: Effective Erosion and Sediment Control**

Content: Soil erosion processes; jurisdiction and regulations; control applications; best management practices; incorporation of ESC into conservation commission decision-making

Instructor: Paul J. McManus, LSP, PWS, President, EcoTec, Inc.

---

Be sure to register. Visit [www.maccweb.org](http://www.maccweb.org)

---