

September/October 2009 The Newsletter of the Massachusetts Association of Conservation Commissions Volume XXXIX Number 5

Inside

Westport Conservation
Commissoners Win Court Case2
Your Conservation Commission May
Have Authority to Regulate
Bacteria, Phosphorus & Nitrogen
in Stormwater
MACC Fall Conference Agenda6
MACC Training Programs
Registration Form8
Is Cutting a Single Tree an
"Alteration"?
Safety vs Local Control of Protected
Lands: the Case of George Jordan
Conservation Land
Congratulations Fundamentals
Graduates15
Shaping the Future of Your
Community (Free Workshops)16
Call for Nominees MACC
Environmental Service Awards .17
Calendar

2010 Annual Environmental Conference

February 27th
College of the Holy Cross
Worcester

MACC is a private non-profit service corporation. Our voting members are the Conservation Commissions of Massachusetts. Nonvoting memberships are available to others interested in community resource protection and include receipt of this newsletter. MACC welcomes letters, articles, drawings and photographs from readers, but reserves the right to edit or reject submissions. Non-staff articles do not necessarily represent the opinions of MACC. Reproduction in whole or in part is permitted with proper credit. For advertising rates and membership information call MACC at 617.489.3930.

Conservation Commissions' Authority to Collect Fees and Spend Funds

By Kathleen E. Connolly, Esq.

Many MACC Help Line calls involve questions regarding permissible expenditures by Conservation Commissions from the three distinct types of funds that commissions are authorized by statute to maintain. Conservation Commission Fund, authorized by the Conservation Commission Act, G.L. c. 40, §8C, is used for any purpose allowed by that statute, which can include a broad list of costs and expenses related to land. The Wetlands Protection Fund is authorized by the Wetlands Protection Act G.L. c. 131, §40 into which the local portion of filing fees for project applications are deposited and expenditures made for administration and enforcement of the Wetlands Protection Act. The Consultant Fee Fund, which is related but newer, is for collection of Consultant Fees pursuant to G.L. c. 44, §53G. It is related to the Wetlands Protection Fund because commissions have long been authorized to spend the local portion of filing fees on consultant review of projects. Given the 2006 amendments to chapter 44, §53G, however, MACC recommends that commissions charge peer review, particularly for large and complex projects, to the applicant through this type of Fund, provided that the Commission has

(Conservation Commissions' Authority.... continued on page 4)

Massachusetts Endangered Species Act is Endangered!

By Heidi Ricci

The Massachusetts Endangered Species Act (MESA) MGL Ch. 131A http://www.mass.gov/legis/laws/mgl/gl-131a-toc.htm is one of the commonwealth's most important and effective environmental statutes. It protects over 400 species of native plants and animals that have already suffered serious losses of their habitat and populations, and is a vital mechanism to preserve the biodiversity of Massachusetts for the benefit of future generations. But the law, and the program that implements it, is under assault from development interests. All state general operating funds were lost this past year and at the same time the legislature has put forward a bill that would effectively gut the statute by prohibiting MassWildlife from

(Massachusetts Endangered Species Act... continued on page 14)



Massachusetts Association of Conservation Commissions Community Conservation Since 1961

Board of Directors

President

Sally A. Zielinski, Ph.D. Carlisle

President-Elect

Patrick Garner Northborough

Past President

Gregor I. McGregor, Esq. Concord

Vice President for Education

Amy Ball Sandwich

Vice President for Advocacy

Tim Purinton Ipswich

Treasurer

Jo-Anne Burdin Templeton

Secretary

Kathleen E. Connolly, Esq. Hopkinton

Directors

Helen D. Bethell Manchester Margaret Carroll Upton Lorraine DeSouza Ashburnham Stockbridge Shepley Evans Dave Gorden Dedham Michele Grzenda Lincoln Scott Jackson Whately Francesca Maltese Amherst Michael Marcus Amherst Stephen McKenna Brewster E. Heidi Ricci Shirley Seth Wilkinson Orleans Kenneth F. Whittaker, Ph.D., Esq. Wenham

Board of Advisors

Nancy Yeatts

Bernie McHugh Edward O. Wilson Brian Rehrig George Wilslocki

Lakeville

President's Council

Alexandra Dawson, J.D. Judith Eiseman George Hall, Esq. Ingeborg Hegemann

Executive Director Linda Mack

Education Coordinator
Michèle Girard

Newsletter Editor
Membership & Publications Coordinator
Lindsay Martucci

Technology Coordinator Database Administrator

Rick Chaff

Bookkeeper

Candace Domos

MACC Office 10 Juniper Road, Belmont, MA 02478 Phone 617.489.3930 • Fax 617.489.3935 www.maccweb.org

Westport Conservation Commissioners Win Court Case

Massachusetts District Court

Westport Conservation Commissioners won a 100% favorable settlement against its Board of Selectman for the unconstitutional interference and illegal disbandment of the Conservation Commission therefore, establishing the Conservation Commissions existence and rights to do its job (with staff) unfettered.

"MACC applauds the Westport Conservation Commission, Attorney Phil Beauregard of Beauregard, Burke and Franco (New Bedford) and Public Employees for Environmental Responsibility (PEER) for winning a settlement that affirms Conservation Commissioners' right to act unencumbered from politics," stated Linda Mack, MACC Executive Director.

In the "Complaint and Jury Demand of the Conservation Commission of the Town of Westport and four of its members as individuals and as members against the Board of Selectmen of Westport and its members individually and as members" it states:

"This is an action seeking declaratory judgment and injunctive relief against members of the Board of Selectmen of the Town of Westport, Massachusetts, because of their unconstitutional and otherwise unlawful conduct directed at Plaintiffs individually and as members of the Westport Conservation Commission..."

In short, it appeared that the Westport Board of Selectmen perceived the Westport Conservation Commission as being a "pro-environment" majority. Starting in December of 2006, the Selectmen solicited and collected complaints against the then Conservation Agent from sources historically opposed to enforcement of state wetlands laws and the Westport local bylaw.

As a direct result of the Selectmen's continued interference, the Agent resigned. In May of 2007 the Board of Selectmen voted to "dissolve" the seven member Conservation Commission and to recreate it as a five member Commission. They also authorized one of its own members to serve as "interim Conservation Agent". The Board of Selectmen ordered the Conservation office locks changed and discontinued the Commission's access to email and pending permits. A few days later the Board of Selectmen rescinded their vote to dissolve the Conservation Commission. The Board of Selectmen continued to interfere with the Commission's performance of its duties up to the filing of the Complaint and Jury Demand on June 11, 2007.

In the settlement agreement important statements that give direct support to Conservation Commissioners in the performance of their duties were:

(Westport Conservation Commissioners.... continued on page 17)

Your Conservation Commission May Have Authority to Regulate Bacteria, Phosphorus and Nitrogen in Stormwater

By Steve Pearlman

DEP says Commissions may require stormwater Best Management Practices (BMPs) that are effective at treating pollutants subject to "Total Maximum Daily Loads" (TMDLs)

Two of the most common and harmful pollutants in Massachusetts waters are bacteria and nutrients (phosphorus and nitrogen). Bacteria, of course, can pose a direct threat to public health as well as to fish and wildlife, and can curtail recreational use of our waterways. Excess nutrients can result in overgrowth of nuisance aquatic weeds to the point where swimming and boating become impossible. It can reduce oxygen levels in the water to such an extent that much aquatic life cannot survive. Phosphorus from stormwater runoff and other human sources feed toxin producing cyanobacteria, also known as blue-green algae, which can have adverse health effects.

Two key laws protect water quality in Massachusetts: the state Wetlands Protection Act and the federal Clean Water Act. The Wetlands Protection Act Regulations require removal of 80% of Total Suspended Solids (TSS)

from stormwater, but do not explicitly require removal of bacteria or nutrients. Although some BMPs that reduce TSS will also reduce bacteria and nutrients, some of the most widely used ones, such as deep sump catch basins followed by a brand name "separator," will generally not.

The federal Clean Water Act, however, mandates that DEP control all pollutants -- including TSS, bacteria and nutrients -- in waters that are listed by the state as "impaired" by that pollutant. DEP is required to establish a plan, called a Total Maximum Daily Load (TMDL), to reduce discharges of the pollutant enough to bring the water body back into compliance with state Surface Water Quality Standards. Currently, final TMDLs cover all or part of 17 watersheds and draft TMDLs cover 14 more. These TMDLs are for pathogens, phosphorus, and, on the C a p e a n d I s l a n d s, n i t r o g e n. S e e http://www.mass.gov/dep/water/resources/tmdls.htm.

Pursuant to the Wetlands Protection Act, DEP in 2008

(Your Conservation Commission May Have Authority.... continued on page 18)



WETLANDS WILDLIFE WATERWAYS

Creating a Balance: Managing the Environmental Process in Preparation for the Future

Wildlife Habitat Evaluations, Wetland Delineation, Rare Species, Shellfish & Eelgrass Surveys, Shoreline Protection, Vernal Pool Surveys, Permit Acquisition, Construction Monitoring, Wetland Replacement, Conservation Permitting



508-746-9491







508-563-5357 508-563-5358 fax 508-746-9491 508-746-9492 fax 781-245-2500 781-245-6677 fax 508-753-3077 508-753-3177 fax 603-899-6726 603-899-6726 fax

CATAUMET

PLYMOUTH

WAKEFIELD

WORCESTER

RINDGE, NH

(Continued from page 1, Conservation Commissions' Authority...)

adopted the appropriate local bylaw to authorize the imposition of consultant fees and the accounting mechanisms for the establishment of such a fund.

Conservation Commission Fund

A Conservation Fund is a dedicated account established by a municipality to ensure that the Conservation Commission will have money that can be spent for any purpose stated in the Conservation Commission Act, G.L. Ch. 40 §8C, without further authorization upon a vote of Town Meeting or the city council. Such funds are discussed in Chapter 9 of the MACC Environmental Handbook for Massachusetts Conservation Commissioners (herein referred to as The Handbook). Purposes for expenditures include the purchase of land, maintenance of or capital improvements to such land, monitoring of conservation restrictions, and expenses directly related to land purchases, including title searches, legal expenses of deed preparation and title passing, investigation of land prior to purchase for conservation purposes. They do not include matters related to the state Wetlands Protection Act, discussed below, and for which certain expenditures are subject to approval by other municipal officials.

While other types of funds are available to communities for some of these same functions, such as land acquisition, and monies may sometimes be donated to these other funds, a Conservation Fund is preferable because it can be broader in scope in terms of allowable expenditures. Other permissible expenditures include the cost of preparing open space plans and maps; GIS expenses; vernal pool certification (which may also be paid for from the Wetlands Protection Act filing fee account); recording of votes on land transfers and other types of expenses that are seldom foreseen and rarely within a Commission's budget. Donations of funds are always welcome, and the establishment of a Conservation Fund serves as a reminder to the community that the Commission is available to accept donations for uses under the Conservation Fund. Without the fund, groups and individuals might not think to make a donation, so establishing one can serve as a kind of advertisement for the causes of Conservation Commissions and land protection opportunities for the community.

Money going into the Conservation Fund must be specifically appropriated or transferred to that fund by a majority vote of the town meeting or city council. Private gifts require only the selectboard or mayor's approval, and borrowed money requires a two-thirds vote. Commissions that have Conservation Funds greatly appreciate that they do not need further Town Meeting approval or

STONES WITH STYLE" • WALLS WITH STYLE"



The Beautiful Solution to Stormwater Runoff

Eco-Stone® and Aqua-Bric® Permeable Interlocking Concrete Pavers

- Provide 100% stormwater infiltration up to 6" of rainfall per hour over the design life of the payement
- Create a firm, stable and slip-resistant surface for pedestrians and vehicular traffic
 - vehicular traffic

Aqua-Bric® Pavers

- Are snow-plow safe and drain snow melt through the voids, minimizing icing hazards and may reduce the need for deicing chemicals
- Qualify for up to 17credits in LEED® Green Building Certification System
- Contribute to groundwater recharge or incorporate water harvesting
- Infiltration and evapotranspiration reduce urban heat island effect and minimize thermal impacts on nearby water sources
- Cost is comparable to conventional asphalt with catch basins and pipe
- Can be installed by a professional contractor or a do-it-yourselfer



Ideal Concrete Block Company, Inc. www.IdealConcreteBlock.com Serving New England Since 1923

FOR A PERMEABLE PAVEMENT COMPARISON GUIDE CALL I-800-24-IDEAL

appropriation to spend money from their Conservation Fund. Money voted to the Fund remains there until 1) it is expended by the Commission or 2) transferred out by a town meeting or city council vote. Under G.L. Ch. 44 §33B, any previous appropriations (even money voted into the Conservation Fund) may be transferred to other use by a majority vote of town meeting or a two-thirds vote of the city council, if the funds have not been legally obligated. In a city, however, the Conservation Commission must consent to any transfer. Any portion of a Conservation Fund earmarked by town meeting or city council for a particular purchase must be honored.

One of the benefits to a commission, procedurally, is that the provisions of G.L. Ch. 40 §14, requiring town meeting or city council vote to buy land, do not apply to land acquisition through a Conservation Fund. Therefore, neither further action nor a two-thirds vote is needed for funding of purchases (including Self-Help purchases) made with money from the Conservation Fund, unless the land is to be taken by eminent domain.

Every municipality can set its own terms for use of its Conservation Fund, provided the uses are consistent with the statute. To determine whether an expenditure is allowed, one should check the purposes of the vote to establish the Conservation Fund as well as the allowable purposes under Chapter 40, §8C. Uses allowed by this type of Fund may sometimes overlap with those allowed by the Wetlands Protection Fund, but they are separate and distinct statutes authorizing separate and distinct uses and funding sources.

Wetlands Protection Fund

Expenditures and accounting for the Wetlands Protection Fund were addressed in an article that appeared in the September/October 2005 issue of the MACC newsletter. Essentially, these filing fees may be used for purposes related to the administration and enforcement of the Wetlands Protection Act, including: salaries Conservation Commission staff who process the applications; hiring of counsel to defend the commission in suits related to permit denials or enforcement under the Act; in-house training; travel to and attendance at external training conferences or workshops related to the Wetlands Protection Act; or equipment or materials related to administration or enforcement of the Act. While the expenditures and accounting procedures for the town portion of Wetlands Protection Act filing fees are outlined in depth in a 1998 Massachusetts Department of Revenue (DOR) guidance document entitled Informational Guideline Release (IGR) No. 98-101, that guidance did not specifically note that training costs were authorized. This authorization by DOR is contained in a December 17, 2002 letter from DOR to MACC (See also, The Handbook, Figure 12N). The 1998 DOR Guidance includes explanations of the accounting, including that fees should be provided to the town treasurer at least weekly. Interest on the Fund goes to the municipal general fund. The accountant must certify the amount in the fund at the start of every fiscal year. Disputed funds must not be spent, and commissions must obtain approval from the selectboard, city or town manager, or mayor, prior to spending WPA filing fees. A critical point is that filing fees under the Wetlands Protection Act must be set aside in a special account that does not revert to the general fund, except for accumulated interest.

It is important to avoid spending WPA filing fees for anything besides administration or enforcement of the Act, and to be careful to separate the types of expenditures that can be made from the Conservation Commission Fund. As noted above, expenditures such as investigation of land prior to purchase for conservation purposes, trail maintenance, installation of foot bridges, or preparing management plans for conservation land are all valid activities of a Conservation Commission. They are, however, not part of the commission's job description under the Wetlands Protection Act. Therefore, WPA filing fees may not be collected for payment of these types of

(Conservation Commissions' Authority... continued on page 11)

McGregor & Associates Attorneys At Law, P.C.

Environmental law and land use counsel for

- Businesses
- AGENCIES
- Industries
- Associations
- Landowners
- Non-Profits

Encompassing all aspects of environmental Law, real estate, land use, and related litigation Plus strategic advice for complex transactions And controversies

> Gregor McGregor • Michael O'Neill Nathaniel Stevens • Luke Legere

> > 15 Court Square, Suite 500 Boston, MA 02108 617-338-6464 Fax 617-338-0737 WWW.MCGREGORLAW.COM

OF ENVIRONMENTAL LAW FOR 34 YEARS

REPRESENTING CLIENTS IN THE ENTIRE RANGE

MACC Fall Conference 2009

Saturday, November > **Enforcement: Yes You Can!** Effective Strategies for Handling Wetland Violations

	AGENDA	Wellesley Moderator: Tim Purinton	Northampton Moderator: Tim Purinton		
8:00 a.m.	Registration; Coffee and Donuts				
8:30	Welcoming Remarks	Linda Mack	Linda Mack		
8:35	Enforcement Skit	Gregor McGregor	Gregor McGregor		
9:00	Enforcement Basics under the Massachusetts Wetlands Protection Act	James Sprague	Mark Stinson Robert McCollum		
9:50	Break				
10:05	Local Enforcement Techniques	Kathleen Connolly	Kathleen Connolly		
11:00	Enforcement Case Studies				
	 Navigating the Enforcement Maze: Issues and Options 	David Pancoast			
	Writing (virtually) Self-Enforcing Orders of ConditionsDeveloping an Enforcement Protocol that Works		Gail Palmer Karen Leigh		
12:00	Lunch Break				
1:15	Enforcement Case Studies, continued				
	Managing "Surprises" and Making the Most of DistrictMonterey Violation uner WPA & Scenic Mountain Act	Christopher Blair			
1:45	Going to Court - When & How Recent Court Decisions/Enforcement Cases	Kenneth Whittaker Gregor McGregor	Kenneth Whittaker Gregor McGregor		
2:15	Break				
2:30 Panel Discussion with Enforcement Experts: Your Questions Answered ~ Please send MACC your enforcement question(s) in advance to: staff@maccweb.org ~					
	Wellesley – Kathleen Connolly, Gregor McGregor, James Sprague Northampton – Kathleen Connolly, Gregor McGregor, Alexandra Dawson, Mark Stinson				
3:30	Wrap Up and Closing Remarks	Linda Mack	Linda Mack		
4:00	Adjourn				

Above Agenda subject to minor changes. Registration Form on Page 8

SPONSORS

Saturday, October 24
Saturday, October 24
NessEay Wellesley

Epsilon Associates JMP Environmental Consulting, Inc.

SUPPORTERS

BSC Group Stearns & Wheler, Inc.

CONTRIBUTORS

McGregor & Associates Rinker Materials/Stormceptor Wilkinson Ecological Design



Fundamentals for Conservation Commissioners

(see Registration Form on Page 8 for schedule)



Unit 1 - Overview of Conservation Commissions: Relationships, Responsibilities, Funds and Fees

Unit 2 - Getting Home Before Midnight: How to Run an Effective Meeting

Unit 3 - The Wetlands Protection Act: Fundamentals, Process and Procedures

Unit 4 - Plan Review and Site Visit Procedures

Unit 5 - Wetland Types: Their Functions and Values

Unit 6 - Writing Effective Orders of Conditions

Unit 7 - Open Space Planning and Protection Techniques

Unit 8 - Managing Conservation Land: Inventories, Goals and Conflicts

MACC Members \$45 Per Unit
Non-members \$60 Per Unit

Course materials and break refreshments are included.

Except on October 24, November 7 bring your lunch (lunch is included on October 24 and November 7 as they are at Fall Conference)

FUNDAMENTALS AGENDA

Morning Check-in 8:30 am - 9:00 am

Morning Unit 9:00 am - 11:30 am

Lunch Break 11:30 am - 12:30 pm

Afternoon Check-in 12:00 pm - 12:30 pm

Afternoon Unit 12:30 pm - 3:00 pm

(3:30 pm for Unit 4)

Times may vary slightly depending on location. Exact times will be sent with registration confirmation.

Advanced Certificate Training Program (Core Day)

Wetlands Ecology and Conservation Biology

This all-day session will make important connections between a Commission's open space and wetlands work and the guiding principles of ecology and biodiversity. You will gain an understanding of the nature and function of resource areas and wetland ecology, the impact of the projects which come before you, and the measures you can take to adequately protect your land and water resources on the watershed and ecosystems levels.

Wednesday, November 18, 2009 • Habitat Education Center & Wildlife Sanctuary, Belmont Check-in 8:30 a.m. Class 9:00 a.m. - 3:30 p.m.

(Lunch Break 11:45 a.m. - 12:45 p.m. Bring a bag lunch.)

Members \$90 • Non-members \$110 Fee includes course materials and morning refreshments.

Additional Core Day sessions are being scheduled. Watch your Newsletter or www.maccweb.org for details.





MACC Fall Registration



Name		
Commission/Organization		
Address	Home _	Work
City/State/Zip		
Phone with area code (Evening) (Day)		
E-Mail		
Please indicate method of payment and mail to: MACC, 10 Juniper Road, Belmont, MA 0 Conservation Commissioners, the principal commission staff person, and other individual Non-members may receive member rate by joining MACC. Call 617.489.3930 for details. writing (mail, fax, e-mail: staff@maccweb.org) at least 2 business days prior to a session notice. A \$10 processing fee will be deducted. Confirmation with exact times and directic Registration also may be made online at www.maccweb.org.	and corporat Cancellatio . No refund t	e members of MACC n must be received in for less than 2 days
Fundamentals for Conservation Commi	ssioner	S
MACC Members \$45 per Unit • Non-members \$6		
Fee includes materials and morning refreshment		
Lunch is included only on October 24 and November 7 if tak	ing both un	its.
(please ✓ each Unit you plan to attend)		
Saturday ~ October 24 ~ MassBay Community College, Wellesley Hills Morning: Unit 7 (cO379) Afternoon: Unit 8 (cO3	200)	Φ
Saturday ~ November 7 ~ Clarion Hotel, Northampton	500)	\$
Morning: Unit 7 (cO381) Afternoon: Unit 8 (cO3	382)	\$
Friday ~ November 13 ~ Belchertown Town Hall		
Morrning: Unit 1 (cO383) Afternoon: Unit 3 (cO	384)	\$
Saturday ~ November 14 ~ Jones Library, Amherst Morning: Unit 2 (cO385) Afternoon: Unit 4 (cO3	386)	\$
Saturday ~ December 5 ~ Jones Library, Amherst	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Ψ
Morning: Unit 5 (cO387) Afternoon: Unit 6 (cO3	388)	\$
Watlanda Faalagy and Canaaryatian Pialag	u (Coro	Day
Wetlands Ecology and Conservation Biolog MACC Members \$90 • Non-members \$110	y (Core	Day)
	20)	•
Wednesday ~ November 18 ~ Habitat Wildlife Sanctuary, Belmont (cO3	90)	\$
Fall Conference - Enforcement: Yes Y	ou Can	
MACC Members \$90 • Non-members \$115		
Fee includes materials, morning refreshments and l	unch	
Saturday ~ October 24 ~ MassBay Community College, Wellesley Hills	(cO371)	\$
Saturday ~ November 7 ~ Clarion Hotel, Northampton	(cO372)	\$
	Total	\$
Method of Payment:		
Check enclosed (payable to MACC)		D .
Bill my credit card: Visa 🗖 MasterCard 🗖 American Exp Card number:		Discover 🖵 Date

Is Cutting a Single Tree an "Alteration"?

by Tino Lichauco

Applying the Wetlands Protection Act (WPA) regulations often requires determining an extent to which land has been "altered." The regulatory definition can be difficult to interpret at times. It does not define alteration explicitly but does provide some examples. In particular, Rule 10.04 includes, as one example of alteration, "the destruction of vegetation." This would appear to include tree removal.

It is a simple matter to quantify an extent of alteration when an entire stand of trees is cut down. One simply fits a closed curve around the stand of trees and calculates the area bounded by the curve.

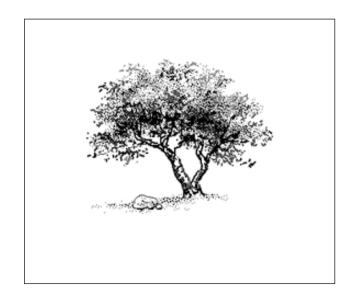
A difficulty arises, however, when the development occurs in suburban areas. Many such developments do not require cutting a contiguous forested area. Instead, development typically requires selectively cutting isolated trees. The alteration associated with cutting isolated trees is too often ignored when quantifying the amount of land being altered.

Ignoring the alteration associated with cutting an isolated tree results in an inconsistent interpretation of the regulations.

Consider a first example, in which a set of trees is arranged such that their canopies merge into a single leafy mass. In such a case, cutting every tree in the set would unquestionably be regarded as an alteration of the acreage occupied by the set of trees.

Consider now a second example, in which the same trees are spread out so that they might be regarded as isolated. In such a case, cutting all the trees may not be regarded as an alteration for no better reason than because the trees are not clustered into a single contiguous area.

These differing results defy logic. If trees are cut, it is reasonable for the altered acreage to be independent of the spatial distribution of trees. Furthermore, removal of the canopy of even one tree changes the light, wind, and other microhabitat characteristics of the entire area previously shaded and sheltered by that tree. This can affect, among other things, water temperature, which is one of the characteristics explicitly cited in the regulatory definition of Alter.



Ignoring the alteration associated with cutting an isolated tree also puts one on a slippery slope. There is no clear guideline to determine just how far two trees have to be before the cutting of those trees need no longer be regarded as an alteration.

Finally, by making it easier to cut down isolated trees, one more rapidly depletes the supply of trees in suburban areas. As a practical matter, many of the trees in Boston's inner suburbs are isolated trees. Such trees are more readily disregarded when considering extent of alteration. If such trees are provided with lesser protection simply because they are more alone, the loss of trees in those suburbs will accelerate. This affects local climate, air quality, and habitat, and contributes to urban heat island effects.

In construing the rules, it would not be unreasonable to regard the removal of a tree as being alteration of an area coextensive with that tree's canopy. Such a construction would result in fewer unnecessary trees lost in those areas that can least afford it.

Tino Lichauco is a member of the Belmont Conservation Commission and a patent attorney with the Cambridge firm of Occhiuti Rohlicek & Tsao.

Safety vs. Local Control of Protected Lands: The Case of George Jordan Conservation Land

By Lori Eggert

George Jordan Conservation Area is under assault. A 37.3 acre parcel located adjacent to Hartwell Town Forest off Harwell Road in Bedford, this land was purchased in 1972 with state and federal assistance. The Bedford Conservation Commission made the following statement at Town Meeting when it sought approval of this land acquisition:

"This piece of land had long been planned as a logical extension of the Town Forest to give maximum protection from the activities of Hanscom Field."

Jordan is now threatened by the very entity for which it is currently serving as a visual, noise and pollution buffer. Massport, the operator of Hanscom Field has told the Bedford Conservation Commission that 7% of this conservation land must be altered--trees removed, topped or trimmed--for the purpose of addressing vegetative obstructions to navigable airspace off the airport.

Mitigation plans for Massport's vegetation management plan include replacing numerous stands of tall canopy white pines with one hundred 1.5-2 inch caliper trees and 400 small shrubs. The management plan also includes herbicide application to control the buckthorn that will result when the shade and moisture conditions are altered.

Massport did not procure easements to the airspace over Jordan when it acquired Hanscom Airfield from the Airforce in 1947. In discussions with the Town of Bedford and the Bedford Conservation Commission, Massport has asserted that it categorically refuses to consider any FAA-permitted alternatives to the tree cutting (such as displaced thresholds) that would save hundreds of trees.

Massport loudly beats the airspace safety drum, but as is the case with airport neighbors around the world, the worry is always about airport expansion. Do Massport's safety

(Safety vs. Local Control of Protected lands... continued on page 16)

KOPELMAN AND PAIGE, P.C.

THE LEADER IN MUNICIPAL LAW

Providing environmental and land use legal services for more than 30 years

- Land Acquisition and Preservation, CR's
- Wetlands Protection and Waterways
- Federal, State and Local Permitting
- DEP and EPA Regulatory Compliance
- Zoning and Subdivision Control
- Hazardous and Solid Waste
- Enforcement and Litigation



Contact: Len Kopelman 101 Arch Street, Boston, MA 02110 800-548-3522

Lkopelman@k-plaw.com

Boston • Worcester • Northampton • Lenox www.k-plaw.com

PEER REVIEWS



FOR LARGE PROJECTS, RIVER-ORIENTED PROPOSALS & OTHER COMPLEX FILINGS.

Specialists In Riverfront Determination, Stormwater & All Things Wet

> PATRICK C. GARNER Ompany, Inc.

109 WHITNEY STREET, NORTHBOROUGH, MA 01532 508.393.3200 www.patrickgarner.com (Continued from page 5, Conservation Commissions' Authority...)

purposes. These types of nonregulatory activities are part of the commission's authority under Chapter 40, §8C, but would not relate to such administration or enforcement of the Act.

In Emerson College v. Boston, 391 Mass. 415, 424-425 (1984), the Supreme Judicial Court described the characteristics of legitimate fees as follows: (1) the fees are charged in exchange for a particular governmental service which benefits the party paying the fee in a manner "not shared by other members of society"; (2) the fees are

MACC Strongly

recommends that all commissions

create and utilize all

three types of

funds to maximum

paid by choice, in that the party paying the fee has the option of not utilizing the governmental service and thereby avoiding the fee; and (3) the fees are collected not to raise revenues, but to compensate the governmental entity providing the services for its expenses. Fees that do not meet these three characteristics would be regarded as

these three characteristics would be regarded as illegal taxes under this so-called "Emerson test." As DOR has noted in opinions to towns on town meeting votes, a lawful fee is one that only covers the Commission's reasonably anticipated costs or providing the services for which the fee is assessed. Southview Coop. Housing Corp. v. Rent Control Bd. of Cambridge, 396 Mass. 395 (1985). Moreover, in Baker v. DEP, the Appeals Court not only upheld the state fee concept, but also held that the filing fee charged does not need to match the exact cost in any particular review, provided it is reasonable overall.

It is also important to note that the Wetlands Protection Fund must keep WPA filing fees separate from any fees assessed pursuant to local wetlands bylaw or ordinance fees; such fees are typically held in a revolving fund pursuant to G.L. c. 44, §53E 1/2. The Wetlands Bylaw fees may be placed in a revolving fund account only if such an account has been authorized by Town Meeting. Otherwise, the collected fees would have to be deposited into the Town's general fund, pursuant to G.L. c. 44, §53. This revolving account must be re-voted each year by Town Meeting or the City Council/Mayor, and the vote can specify permissible uses of the fund and the anticipated amount authorized to be spent. With respect to the disposition of any unexpended balance of funds remaining in a revolving account at the end of a fiscal year, the expenditure of such funds may be authorized by Town Meeting as part of its reauthorization of the revolving fund for the next fiscal year. If, however, the revolving fund is not to be reauthorized for the next fiscal year, or if the purposes for which the money in the revolving account fund may be spent are to be changed for the next fiscal year, then G.L. c. 44, §53E 1/2 provides that the balance of

funds in the revolving account at the end of the fiscal year "shall revert to surplus revenue unless the annual town meeting...vote[s] to transfer such balance to another revolving fund established under this section." With respect to an estimated receipts account, the statute expressly provides that "[a]ny balance in such accounts at the end of the fiscal year shall be deposited into the general treasury of the city or town."

Whether or not the balance of such revolving funds are deposited in the general account, municipalities must be careful not to use local bylaw/ordinance filing fees for non-wetlands uses, or general uses for the town, such as

supplementing the general fund or another town account, or, for example, purchasing a fire truck, etc. As legitimate as those uses may be, they do not relate to wetlands application fees. Filing fees must be related to the service provided, or they could constitute an illegal tax. This is where a commission must be aware that it gets its

responsibilities and duties from two different statutes, and be careful to keep the monies collected for each separate, and the expenditures for each group of tasks separate.

Under the *Emerson* test, a commission may not charge fees under the Wetlands Bylaw for the purpose of covering



costs unrelated to the administration and enforcement of that Bylaw. As recognized in the Emerson decision, regulatory fees may be set with a goal of reimbursing the town for all expenses imposed on it by the activity to be regulated. Therefore, it is appropriate to take into account not only the direct costs of regulation but all the incidental costs to which the public is likely to be subjected as a consequence of the permitted activity. As discussed above, legitimate administration costs upon which the fees are based may include such things as staff salaries, consultants to delineate wetlands or review applications, and legal expenses for administering and defending the Wetlands Bylaw. Ensuring that you avoid establishing a fee, which constitutes an illegal tax, is important for all types of funds involving deposits of fees.

Consultant Fee Fund

WPA filing fees often fail to cover the entire costs of consultants for large, complex or controversial projects, as discussed in Chapter 15 of the MACC Handbook which is why MACC lobbied for authority for commissions to impose consultant fees. This authority had already been provided to other boards under G.L. c. 44, §53G (planning boards, zoning boards, and boards of health), but until 2003, the statute did not include Conservation

At Anderson & Kreiger, the environment fills our field of vision.

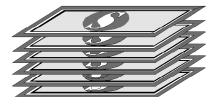


Specialized knowledge. Personal commitment.

At Anderson & Kreiger LLP, environmental law is our focus and our passion. For nearly two decades, we have represented conservation commissions in areas ranging from wetlands protection to drafting regulations and by-laws. We offer the depth and experience of a large firm with the rates and responsiveness of a small firm. Contact George Hall at (617) 621-6530.



One Canal Park, Suite 200, Cambridge, Massachusetts 02141 Tel (617) 621-6500 Fax (617) 621-6501 www.andersonkreiger.com Commissions. Previously, the best option for a commission seeking the authority to impose consultant



fees on certain projects could petition for special legislation giving it the type of authority provided to the other boards by the statute. That worked, but it was a long and tedious process for both the commissions and the Legislature. Meanwhile, projects were proposed and commissions used their limited resources to review complex applications. Finally, in 2003, the Legislature amended that statute to include an authorization for any city or town "by rules promulgated under section 8C of chapter 40" to impose "reasonable fees for the employment of outside consultants." Thus activities under the Conservation Fund were covered. An article in the September/October 2003 MACC newsletter explained the statutory change, and included a model regulation that commissions could use. The statute was further amended in 2006 to clarify that Conservation Commissions may use the consultant fee provisions of section 53G when implementing the authority conferred "under any local wetlands ordinance or by-law." Now, if a Conservation Commission adopts the appropriate wetlands bylaw or ordinance provision, it can impose consultant fees, and can enact rules and regulations for collection of such fees. MACC's Model Bylaw (Section 20.5) contains a provision you can use in your bylaw if your commission wishes to add authority for consultant fees.

The statute specifies certain administrative rules a municipality must enact prior to establishing a revolving fund. Among other things, a municipality must establish and vote on rules that: (1) impose a reasonable fee for the employment of outside consultants; and (2) provide a means to appeal the choice of consultants to the city council or town Board of Selectmen. While the procedure for appeals is largely at the discretion of the municipality, the subject matter of an appeal is limited to claims that the selected consultant either has a conflict of interest or does not possess the minimum required qualifications. Also, a consultant must possess minimum qualifications that include either (1) an educational degree in or related to the field at issue or (2) three or more years of practice in the field at issue or a related field.

A Commission must adopt written rules relative to hiring consultants. These rules, like any other rules or regulations of the commission, do not require a public hearing or public comment or a town meeting vote. However, for purposes of harmony with the regulated community, it is recommended

that the commission conduct a public informational session and take input.

Commissions may set up special revolving accounts, with their local treasurer for the deposit of consulting fees, and each project requires a separate account. The money deposited into the fund may not be diverted to any other use, and any excess must be returned to the applicant, with accrued interest. The commission must make a report of the account available to the applicant, and an account must be included in the town's annual report and submitted to DOR's Bureau of Accounts. There is no requirement for annual authorization by any governmental body to roll over accumulated funds in §53G accounts, like there is with other revolving accounts. The Handbook further describes the accounting mechanisms for such funds further in Chapter 3.

A commission need not obtain authorization to engage or pay consultants, but the Commission should require that the applicant pay the fee prior to engaging any consultant to conduct work. This will avoid a host of potential problems, such as if the applicant doesn't like the consultant's report or Commission's decision and refuses to pay and/or withdraws the application.

As detailed as the statute is with respect to accounting, it is broad regarding the scope of uses for consultants. Basically they are appropriate for assisting the Commission in any of its legal powers or duties under the Wetlands Protection Act, Chapter 131, §40, or the Conservation Commission Act, Chapter 40, §8C. Consultants might assist a commission in review of any type of application under the Act, including: checking stormwater runoff or other calculations; resource area delineation; reviewing wildlife evaluations or determining the presence of rare species; drafting a permit; advising whether a project meets, or can be conditioned to meet, applicable laws and regulations; advising the commission regarding an appeal; attending site visits, meetings, etc.; or for assistance related to municipal conservation land, such as surveys or other research where there is a proposal to convert dedicated open space to another use. Despite the wide range of uses for a consultant, MACC recommends employing consultants and requiring applicants to pay for them only when their expertise is needed by the Commission because the project warrants the extra review. Otherwise, the Commission runs the risk of a challenge by the applicant that the expenditure and report are unnecessary.

Conclusion

MACC strongly recommends that all commissions create and utilize all three types of funds to maximum effect. Their purpose is to help finance and facilitate work by the commission, and they require careful creation and implementation in accordance with the statutes governing each. Whether a commission establishes one or all three of these funds, it should familiarize itself with the applicable statutes and DOR opinions, and contact DOR where there is any question. There should also be a consultation with the town counsel or city solicitor and the accountant to ensure that the funds are established with the requisite approvals or votes and that appropriate fees or other monies are deposited into the appropriate account. Also it is important that expenditures are correctly made out of each account to avoid any violations that would lead to unnecessary expense to correct. The Commission should periodically monitor and review the account balances.

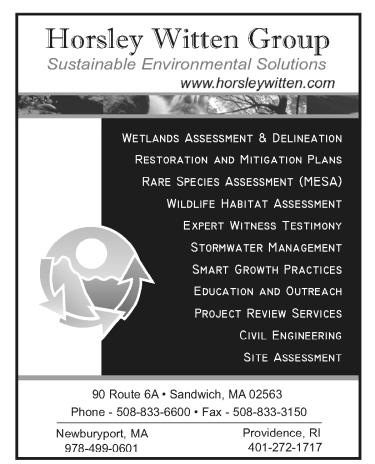
Kate Connolly is an Officer of MACC and an attorney in the Real Estate and Regulatory Department of Murtha Cullina, LLP



protecting rare species through the regulatory program that it has carefully developed.

House bill 4167, is innocuously titled, An Act relative to project review or permit requirement upon certain land by the Department of Fisheries, Wildlife and Environmental Law Enforcement. But the real effect would be to eliminate the Natural Heritage's and Endangered Species Program's (NHESP) ability to regulate activities in Priority or Estimated Habitat. The bill would amend MESA by adding: "The director shall not impose any project review or permit requirement upon any land unless such land is located within an area which has been duly designated as a significant habitat." Since no "significant habitat" has been designated, the agency would not be able to regulate projects anywhere in Massachusetts.

MassWildlife and NHESP have taken a very middle of the road approach to implementing the law. MESA requires that rare plants and animals listed as Endangered, Threatened or of Special Concern be protected from "take", defined "in reference to animals, means to harass, harm, pursue, hunt, shoot, hound, kill, trap, capture, collect, process, disrupt the nesting, breeding, feeding or migratory





activity or attempt to engage in any such conduct, or to assist such conduct, and in reference to plants, means to collect, pick, kill, transplant, cut or process or attempt to engage or to assist in any such conduct." The statute also states that the Department has the authority to draft regulations to implement the statute, as is typical. The regulations apply the statutory definition of *take*, stating "Disruption of nesting, breeding, feeding or migratory activity may result from, but is not limited to, the modification, degradation or destruction of Habitat." (321 CMR 10.02). In addition to the prohibition on take, the statute allows, but does not require, the state to designate "Significant Habitat" for Endangered and Threatened Species, but not Species of Special Concern.

The NHESP has carefully mapped Priority Habitats of state listed rare species and a subset of these areas within wetlands, called Estimated Habitat. It established a publicly vetted regulatory review program to ensure that no takings occur. This program includes a list of routine activities that are exempt, and provides for review of other projects. Timelines are established in the regulations and if the agency fails to meet them the project is automatically approved. Landowners can challenge the mapping of their property if they believe it is not in fact habitat for a rare species. Without Priority Habitat, landowners would not know that they were at risk of taking a rare species, and thus violating the MESA statute.

Permits for taking rare species for scientific, educational, conservation, or management purposes can be granted through the Division of Fisheries & Wildlife. If certain criteria are met, projects resulting in a "take" of state-listed rare species may be eligible for a Conservation and Management Permit, if commitments are made to



mitigation that results in a net benefit to the species. The NHESP also reviews projects within Estimated Habitats of Rare Wetland Wildlife during review under the Massachusetts Wetlands Protection Act (M.G.L. Ch. 130 Sect. 4) and submits letters to the Conservation Commission that the commissioners must consider before issuing a wetlands permit.

Developers have challenged the law and its administration on several occasions, and it has been upheld. Judges have determined that the agency is correct, that if a project will so alter a habitat so that the affected species can no longer carry out its normal feeding, breeding, and migratory activities, then a "taking" has occurred. The regulatory structure NHESP has crafted provides maps that are readily accessible to any landowner or anyone considering purchasing land, thereby notifying them that they need to check with NHESP before undertaking activities that might result in a taking. Thousands of projects are reviewed every year, and more than 95% of them proceed with a determination that no take will occur, sometimes with reasonable conditions imposed on the way the project may be carried out. Only a handful of projects annually require a full Conservation and Management Permit.

Yet because developers find the law inconvenient, they have tried to paint it as unreasonable and unfair. It is neither. Similar to many other environmental laws such as the Wetlands Protection Act, the administration of MESA involves mapping of the resources and a standardized review process that ensures fairness and consistency. No change in the law is warranted, and the proposed bill would be disastrous for both landowners and rare species. Landowners would be subject to prosecution for rare species takings after-the-fact, resulting in hefty penalties for work that could easily have been conditioned to avoid the And rare species will suffer losses that are taking. unnecessarily and readily avoidable. The legislature should dismiss this bill and restore funding to one of the most effective environmental programs in the commonwealth.

Land protection programs, Conservation Commissions, coastal waterbird protections, and wetlands restoration programs are all guided by the information and regulatory decisions provided through MESA. To undo their authority to protect rare species from takings would be devastating.

Heidi Ricci is an MACC Board member and Senior Policy Analyst at Mass Audubon.

CONGRATULATIONS Fundamentals GRADUATES!



Michael Mavrides Wrentham

Petra Templin Wales

Jannell Zarba Newburyport

Brenda Kelly Bedford

Tim Bauman Ashby





ENVIRONMENTAL LAW



GLENN A. WOOD, ESQ. 617-330-7016

WETLANDS/WATERWAYS
ZONING/SUBDIVISION CONTROL/40B
HAZARDOUS AND SOLID WASTE
SPECIAL MUNICIPAL COUNSELING
LITIGATION SERVICES

50 Rowes Wharf, Boston, MA 02110 617-330-7000 * Fax 617-330-7550

www.rubinrudman.com



Environmental Consulting Services For Conservation Commissions

Third Party Permit Reviews
Wetland Delineation Reviews
Construction Compliance Monitoring
Erosion Control Plans
Stormwater Management System Evaluations
Wetland Restoration & Mitigation Plans
Rare Species Habitat Studies
Vernal Pool Assessments
Wetland Plant Nursery and Planting

Wetlands Preservation, Inc. Environmental Consulting Services

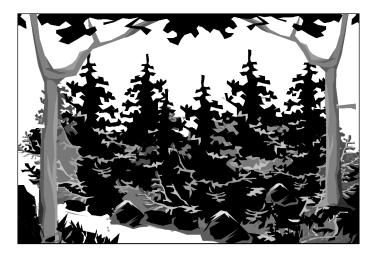
475 Ipswich Road, Boxford, MA 01921 (978) 352-7903 47 Newton Road, Plaistow, NH 03865 (603) 382-3435 FAX: (603) 382-3492 E-MAIL: info@wetlandwpi.com Website: www.wetlandwpi.com concerns arise purely from current use of the runway, or does the enormous scope of the tree removal project point to safety concerns for potential users of the runway? And more generally speaking, does safety trump local control of protected lands, lands that the Conservation Commission is charged by law to protect?

The Bedford Conservation Commission has a tough road ahead. Massport has repeatedly maintained that their cutting plan does not trigger Article 97.

The Commission has some very deep concerns about this. Is Massport's plan for Jordan a change of use? Is reconturing the landscape to facilitate airport operations consistent with our charge to protect and preserve? I, for one, believe that changing the very contour of Jordan by swapping out tall canopy habitat for fields of shrubs constitutes a major change of use. And as for the human part of the equation, I question how the removal/alteration of the large canopy buffer affects the levels of aircraft noise and pollution experienced by hikers and abutting homeowners. Also, Massport's dictums regarding the exact number of trees that must go plus the unspoken threat of lawsuits should the ConCom say no, smack very much of a change of control.

Conservation Commissions all over Massachusetts should pay attention to the fate of George Jordan Conservation Land in Bedford, especially if they share my belief that local stewards have the discretion to determine whether vegetation management plans proposed by outside parties represent a change of use/control. Feel free to contact me with comments or questions - Lori.Eggert@verizon.net.

Lori Eggert is Vice Chairman of the Bedford Conservation Commission.



Shaping the Future of Your Community

Free Workshops

Mass Audubon has scheduled a series of free workshops this fall to assist residents in southeastern Massachusetts and southern Worcester County in planning how land is developed and protected. Shaping The Future of Your Community workshops will give you the tools you need to help guide your community to a sustainable future and maintain a high quality of life. More information is available at www.massaudubon.org/shapingthefuture



Minsk, Gould & Costellic, P.C. Certified Public Accountants

Serving Corporations, Small Businesses, Non-Profit Organizations and Individuals

"The CPA, Never Underestimate The Value" Tax Planning • Tax Preparation
Audit, Review and
Accounting Services
Business Advisory Services
Estate & Retirement Planning

We Can Help
(781) 329-5770
105 Eastern Avenue, Suite 210, Dedham, MA 02026



Ecosystem Solutions, Inc.

WETLANDS SOILS WILDLIFE
GIS PERMITTING PEER REVIEWS

www.ecosystem-solutions.com

24 Kenmore Street West Warwick, RI 02893 p: (401) 615-8885 / f: (401) 615-0421

(Continued from page 2, Westport Conservation Commission....)

".... The Conservation Commission, as a statutorily authorized regulatory body, has the responsibility to consider applications that come before it in a fair and equitable manner, in due compliance with the state Wetlands Protection Act (M.G.L. c. 131 § 40) and related regulations. The Board of Selectmen will not interfere with the Commission in its discharge of that responsibility."

"... The Board of Selectmen does not have any supervisory or managerial authority over personnel appointed by the Conservation Commission pursuant to M.G. L. c. 40 § 8C."

"... Pursuant to M.G.L. c 131 § 40, any person aggrieved by the Commission's order or failure to act on applications pending before it pursuant to its statutory authority has the right to challenge through an administrative appeal process to the Massachusetts Department of Environmental Protection (DEP), as established by state regulations. The Board of Selectman shall direct persons with complaints relative to decisions on Wetlands Protection Act applications to the appropriate appeal process; any complaints of another nature shall be directed to the appropriate authority (e.g. Open Meeting Law violation to the District Attorney, Ethics violations to the State Ethics Commission, etc.)."

"I encourage all Commissions to stand strong in administering the Wetlands Protection Act and by-laws for the protection of wetlands across Massachusetts. While local pressures can be daunting at times, this settlement confirms and adds support to the authorized regulatory responsibility each of us hold," stated Linda Mack.

In the settlement, the Board of Selectmen also acknowledged that their vote to dissolve and reconstitute the Conservation Commission as a whole was illegal and did not comply with the requirements of M.G.L. c 40 §8C.

"This is a clear message to municipal officials across Massachusetts that Conservation Commission members may carry out their responsibilities under the Wetlands Protection Act without retaliation," stated New England PEER Director, Kyla Bennett.

To read the full story, complaint and settlement, go to the PEER website at:http://www.peer.org/news/news id.php?row id=1200

Call for Nominees MACC Environmental Service Awards

MACC is now accepting nominations for the prestigious Annual Environmental Service Awards presented each spring to individuals who have made outstanding contributions in environmental and conservation advocacy, education, research and resource protection in Massachusetts. The awards will be presented at the Annual Environmental Conference at the College of the Holy Cross in Worcester on February 27, 2010.

Conservation Commissioners, Commission staff, citizen activists, career environmentalists, consultants, politicians, government officials, foundations, teachers, students, and others who have made measurable contributions are likely nominees. Actions with respect to wetlands, open space, wildlife, science, pollution, growth control, or other related activities may qualify.

Award Categories typically include a "Conservation Commissioner of the Year." This award will be given to a present or past Commissioner who has made a real difference to his/her board and community. An outstanding Commission Administrator or other staff person is also usually recognized. Be alert to accomplishments like: building an effective Conservation Commission; increasing efficiency of operations, hearings, and meetings; writing and passing new bylaws; broadening the Commission's constituency; enforcing the Wetlands Protection Act and bylaws; spearheading important land acquisitions, developing land-management tools; and completing significant local projects.

Other categories are flexible, allowing MACC to tailor the awards to deserving recipients. Over the long haul, we want to leave no one out.

We publish the awardees in the *MACC Newsletter* and program for the Conference. We personally invite the awardees and their family or co-workers to attend the conference.

Your nominations should include: name, address and daytime telephone number of nominator(s) and nominee(s); background, affiliations and two pages describing relevant achievements of nominee; details on any organization making or sponsoring the nomination; letters of support from at least two persons or organizations, but not more than five.

The **deadline** for your award nomination is **October 1, 2009**. Send to: Awards Committee, MACC, 10 Juniper Road, Belmont, MA 02478, fax to 617.489.3935 or e-mail to lindsay.martucci@maccweb.org. Call MACC at 617.489.3930 and ask for Lindsay with any questions.

(Continued from page 3, Your Conservation Commission May Have...)

stated in writing that Conservation Commissions have the authority to require best management practices (BMPs) that are effective at removing pollutants other than TSS, such as bacteria or nutrients, if a wetland project is in a watershed with a TMDL that identifies stormwater as a major source of that pollutant. The 2008 <u>Massachusetts Stormwater Handbook</u>, in a section entitled "Stormwater Discharges and Total Maximum Daily Loads," (Vol. 1, Ch. 2, pages 12 - 13) states:

If a proponent is proposing a project that is in the watershed of a water body with a TMDL, and if the project is subject to wetlands jurisdiction, the proponent must select structural BMPs that are consistent with the TMDL. Because pollution prevention is an interest identified in the Wetlands Protection Act, Conservation Commissions and MassDEP may require use of such BMPs when reviewing projects subject to jurisdiction under the Act.

Volume 2, Chapter 2 of the <u>Stormwater Handbook</u> lists the bacteria and nutrient removal efficiencies of dozens of specific BMPs, which are <u>summarized in the Table on page 19</u>.

Commissions may also have authority to require BMPs that are effective at bacteria or nutrient removal even when there is no final TMDL

If there is a *draft* TMDL or other strong evidence that stormwater is a major source of a serious water pollution problem (such as a DEP Watershed based plan or local water quality data), it would appear that the Wetlands Regulations give Commissions the discretion to set additional conditions (beyond the Stormwater Management Standards) in order to protect the "pollution prevention" interest of the Wetlands Protection Act. For example, 310 CMR 10.05(6)(b) states that for discharges in resource areas or buffer zones: "The Order shall impose conditions setting limits on the quantity and quality of discharges from point sources (both closed and open channel), when limits are necessary to protect the interests identified in M.G.L. c. 131, Section 40."

Even for non-point discharges to ground or surface water, the same section of the Wetlands Regulations states: "The Order of Conditions shall impose such conditions as are necessary to meet performance standards set forth in 310 CMR 10.21 through 10.60 [provisions applying to individual resource areas] and the



Stormwater Management Standards provided in 10.05(6)(k) through (q)" (emphasis added). This implies that Orders may include stormwater-related conditions that go beyond the specific Stormwater Management Standards of Section 10.05(6) if such conditions are needed to meet resource area performance standards. Performance standards for both inland Banks and Land Under Water state that proposed work "shall not impair ground or surface water quality" and, for BVWs, that work "shall not destroy or otherwise impair any portion of said area."

Conclusion

Conservation Commissions in watersheds covered by TMDLs (and in watersheds where there is other strong evidence that stormwater runoff plays a significant role in causing serious bacterial or nutrient pollution) may want to consider distributing the Table below to applicants and requiring them to implement such BMPs as are needed to minimize the pollutants of concern in their stormwater discharges. An exception should be made if the applicant demonstrates that a BMP(s) would not be effective or necessary on its particular site. Commissions may also choose to require that applicants provide water quality treatment for the first 1 inch of rainfall, as is currently required in the Wetland Regulations for "sensitive" areas." This would result in treatment of 86% of average annual rainfall, compared to 65% under the normal 1/2 inch treatment requirement, and thus would increase pollutant removal greatly.

The MA Stormwater Handbook is available under the heading of "Stormwater Policies and Guidance" at http://www.mass.gov/dep/water/laws/policies.htm#storm.

Steve Pearlman is Advocacy Director for the Neponset River Watershed Association and Coordinator of the Watershed Action Alliance of Southeastern Massachusetts.

18 MACC Newsletter September/October 2009

BACTERIA AND NUTRIENT REMOVAL EFFICIENCIES OF STRUCTURAL BMPs (according to Vol. 2, Ch. 2, pp. 1 - 132 of MA Stormwater Handbook)

NOTE: NON-STRUCTURAL BMPs SUCH AS ENVIRONMENTALLY SENSITIVE SITE DESIGN and SOURCE REDUCTION ARE EQUALLY OR MORE EFFECTIVE AS STRUCTURAL BMPs!

<u>Pathogens</u> <u>Total Nitrogen</u> <u>Total Phosphorus</u>

[Effectiveness of BMPs may vary significantly depending on location]

Pretreatment BMPs (pp. 1-21)			
Deep Sump Catch Basins	Insuff. Data ¹	Insuff. Data`	Insuff. Data
Oil/Grit Separators	Insuff. Data ²	Insuff. Data	Insuff. Data
Proprietary Separators	Insuff. Data	Insuff. Data	Insuff. Data
Sediment Forebays	Insuff. Data	Insuff. Data	Insuff. Data
Vegetated Filter Strips	Insuff. Data	Insuff. Data	Insuff. Data
<u>Treatment BMPs</u> (pp. 22-67)			
Filtering Bioretention Areas (including rain gardens)	Insuff. Data ³	30 - 50%	30 - 90%
Constructed Stormwater Wetlands	Up to 75%	20 - 55%	40 - 60%
Water Quality Swales	> 10%	10 - 90%	20 - 90%
Extended Dry Detention Basins	< 10%	15 - 50%	10 - 30%
Gravel Wetlands	Up to 75%	30 - 50%	40 - 60%
Proprietary Media Filters	Varies	Varies	Varies
Proprietary media filters may			
for such use by the TARP or			40 500/
Sand/Organic Filters	Insuff. Data	20 - 40%	10 - 50%
Wet Basins	40 - 90%	10 - 50%	30 - 70%
Conveyance BMPs (pp. 60-82)			
Water Quality Swales	Insuff. Data	10 - 90%	20 - 90%
(vegetated, dry & wet)	msan. Data	10 2070	20 >070
(vegetated, dry to wet)			
Infiltration BMPs (pp. 83-106)			
Exfiltrating Bioretention Areas	Insuff. Data ⁴	30 - 50%	30 - 90%
including rain gardens			
Infiltration Basins	90%	50 - 60%	60 - 70%
Infiltration Trenches	Up to 90%	40 - 70%	40 - 70%
Leaching Catch Basins	Insuff. Data	Insuff. Data	Insuff Data
Subsurface Structures	Insuff. Data	Insuff. Data	Insuff Data
<i>Other BMPs</i> (pp. 107-132)			
Dry Detention Basins	< 10%	5 - 50%	10 - 30%

⁴ See footnote 3.

¹ Some studies have found sumped catch basins to be incapable of removing the pathogens that were examined.

² Kirk, 2002 (USGS Southeast Expressway study) found that oil/grit separators were most likely ineffective at bacteria removal.

³ The **MA Stormwater Handbook** also **states**: "If properly designed and installed, **bioretention areas remove** phosphorus, nitrogen and **bacteria** to varying degrees." (See Handbook Vol. 2, Ch. 2, p. 25)

Massachusetts Association of Conservation Commissions

10 Juniper Road Belmont, MA 02478 617.489.3930 www.maccweb.org



Non-profit Organization U.S. POSTAGE PAID Belmont, MA 02478 Permit No. 56583

MACC CALENDAR

Oct. 16, 2009. **Science of Headwater Streams**. Sponsored by AMWS. Petersham. For details visit: www.amws.org.

Oct. 24, 2009. **Fundamentals for Conservation Commissioners** Units 7 & 8. Wellesley Hills. See pages 7 for details and page 8 for registration.

Oct. 24, 2009. *MACC Fall Conference.* Wellesley Hills. See pages 6 for details and page 8 for registration.

Oct. 27, 2009. The *Wonders of Wetlands (WOW!)*. Sudbury. For details go to www.wetland.org

Oct. 28, 2009. **WOW! Facilitator.** Uxbridge. For details go to www.wetland.org

Oct. 29, 2009. *The Planning of Wetlands (POW!)* Uxbridge. For details go to www.wetland.org

Nov. 7, 2009. *Fundamentals for Conservation Commissioners* Units 7 & 8. Northampton. See pages 7 for details and page 8 for registration.

Nov 7, 2009. *MACC Fall Conference*. Northampton. See pages 6 for details and page 8 for registration.

Nov. 13, 2009. **Wetland Science: 5 Big Trends in a Changing Environment**. AMWS Annual Meeting. Ashland. For details visit: www.amws.org.

Nov. 13, 2009. *Fundamentals for Conservation Commissioners* Units 1 & 3. Belchertown. See pages 7 for details and page 8 for registration.

Nov. 14, 2009. *Fundamentals for Conservation Commissioners* Units 2 & 4. Amherst. See pages 7 for details and page 8 for registration.

Nov. 18, 2009. *Wetlands Ecology and Conservation Biology* (MACC Science Core Day). Belmont. See page 7 for details and page 8 for registration.

Dec. 5, 2009. **Fundamentals for Conservation Commissioners** Units 5 & 6. Amherst. See pages 7 for details and page 8 for registration.

MACC is a Member of Earth Share of New England and the Massachusetts Environmental Collaborative.