

Coastal Issues and Related Training and Information Needs as Perceived by Conservation Commissioners and Agents in Massachusetts Coastal Municipalities

A Needs Assessment Study for the Massachusetts Coastal Training Program

Duane Dale, DFD Associates*, November 8, 2006

Overview

This is the report of a study commissioned by the Massachusetts Coastal Training Program (CTP), a partnership involving three organizations: Waquoit Bay Natural Estuarine Research Reserve, the Massachusetts Office of Coastal Zone Management, and the Sea Grant program at the Woods Hole Oceanographic Institution. The purpose of the study was to learn how conservation agents and conservation commission members in Massachusetts coastal municipalities perceive coastal issues in their communities and what training or information needs they identify. The study was carried out by Duane Dale of DFD Associates, who has conducted previous needs assessments studies for the Massachusetts CTP. (See www.coastaltraining.org/training_needs/index.htm.)

This report contains the following sections:

- Context
 - The interview
 - The sample
 - Interview Findings
 - Issues that would benefit from training and/or informational materials
 - Preferences for Workshops, Informational Materials, or Technical Assistance
 - Local and State Collaborators
 - Initial Training and Information for New Conservation Commission Members
 - Personal Experience with Training
 - Success Stories
 - Observations
 - Recommendations
 - Conclusions
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Context

There are 351 municipalities in Massachusetts. The Massachusetts Office of Coastal Zone Management identifies 78 (22%) of them as coastal.

Every Massachusetts municipality has the authority to create a Conservation Commission. These commissions derive their authority primarily from the state's Wetlands Protection Action (Massachusetts General Laws, Chapter 131, section 40) and regulations (Massachusetts Code of

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Regulations 310 CMR 10.00, which charges the local Conservation Commission and the state Department of Environmental Protection with administering the Wetlands Protection Act). In many communities, there is also a local wetlands by-law.

Conservation Commissioners are citizen volunteers who are appointed to their positions. In a few communities, they receive a small stipend but may be expected to cover associated expenses from their stipend. Most but not all municipalities have a professional staff person who works with the conservation commission and who is known as a conservation agent, conservation administrator, conservation planner, or similar title. This may be a full-time or part-time role; a few municipalities allocate more than one position to this function.

Several organizations provide training for conservation commission members and agents, including the Massachusetts Association of Conservation Commissions and the state Department of Environmental Protection. Also, a variety of organizations provide Coastal Management Training to governmental personnel; see the report of the Massachusetts Coastal Training Program's 2001 study, *Market Analysis of Coastal Management Training Programs in Massachusetts: Final Report* (University of Massachusetts Donahue Institute, 2002, <http://www.coastaltraining.org/images/CTPMarketAnalysis.pdf>, pages 24-25; pdf document pages 29-30). Training events and informational materials are only occasionally focused on coastal-related issues with conservation commissions as the intended audience. The sponsors of the study reported here -- Massachusetts Coastal Training Program and its three partner agencies -- are among the few organizations that provide such services to conservation commissions.

When CTP or other organizations consider offering training or informational materials to conservation commissions, an inevitable question is which topics will have wide appeal vs. appeal to only a sub-set of the municipalities or commissioners vs. unique concerns of one municipality. There are substantial differences among the 78 coastal municipalities in Massachusetts which may affect the extent of interest in any particular topic:

- Differences in topography and shoreline features
- Character of the municipalities – urban/suburban/rural
- Population density
- Degree of coastal development
- Extent of redevelopment activity
- Scale of projects along coastline or involving coastal wetlands
- Types of activity that occur in salt water: commercial, fishing, dredging, structures, etc.
- Form of government (mayor/city council, town administrator, selectmen)
- Differences in specialized boards and councils;
- Differences in commission staffing.
- Government “culture” (professional vs. politicized; extent of inter-departmental collaboration, etc.)
- Membership of the Conservation Commission (number, years of experience, number of members with relevant professional training or experience)

A previous study of the training needs of local officials was conducted for the Massachusetts Coastal Training Program in 2002. (See www.coastaltraining.org/images/DFDFinalNeedsAssess.pdf.) Thirty of the 169 individuals who completed a paper-and-pencil survey were conservation commission members or staff from the coastal municipalities of Massachusetts. Respondents gave 1 to 5 ratings to a pre-selected list of possible content areas. Conservation commission members and professional staff gave their highest ratings to these two topics:

Habitat protection and restoration
Wetlands and waterways protection

This topic was in the conservation staff's top tier and ConComm members' second tier:
Coastal processes and geology

These topics were in the second of four tiers for both groups (conservation staff and commission members):

Marine pollution
Invasive species
Endangered species
Open space protection

These topics were in the first or second tier for one group but not both:

Ecological landscaping
Land use planning
Special area management
Environmental technologies
Stormwater management
Coastal access
Nitrogen loading, nutrient management

(These results appear on page 20 of the original document, which is pdf page 22 of www.coastaltraining.org/images/DFDFinalNeedsAssess.pdf.)

Study Methodology

Telephone interview was selected as the best way to augment those findings from the 2002 study. In contrast to the pre-established list of proposed topics in that study's questionnaire, this study's open-ended questions would give interviewees the opportunity to describe issues and training needs in their own words.

The interview questions can be found in an appendix to this report. The questions followed this sequence:

- Background information (items 1-6)
- Identification of local issues; issues that could benefit from training or informational materials (items 7-9)
- Collaboration with local and state government entities; possible shared training (items 10-12)
- Personal experience with training, including initial orientation (items 13-16)
- Success stories and other input (items 17-18)

The interview questions were developed by the researcher, reviewed by the CTP staff team, and then pilot-tested with three individuals to assure that the questions were clear, comprehensible, and producing useful responses. The actual interviews then began; they averaged about 33 minutes each, with 70% of them lasting between 21 and 45 minutes.

The Sample

There are 351 municipalities in Massachusetts. The Massachusetts Office of Coastal Zone

Management identifies 78 municipalities (22% of the state's 351 municipalities) as coastal and it distinguishes five regions of the Massachusetts coast. (For the purposes of this study, the Cape & Islands region was sub-divided into two.)

A stratified sampling approach was used. In selecting municipalities, it was deemed essential to include all regions of the Massachusetts coastline and a range of coastal development types and intensities. Also, in order to explore the needs for a range of training levels from basic to advanced, it was considered important to select communities whose Conservation Commissions reflect a range of different levels of success in dealing with the issues they face. For the same reason, when selecting individuals to interview within each chosen municipality, it was deemed important to include the professional staff person whenever possible and to include one more experienced and one novice or relatively less-experienced commission member.

The sample for this study consisted of three communities each from North Shore, Boston Harbor, South Shore, Cape Cod, and South Coastal and two from the Islands, for a total of 17 communities (20% of the 78 coastal communities). For each community, the preferred respondents were the Conservation Agent or equivalent, an experienced member of the Conservation Commission, and a novice or less experienced member.

State agency personnel familiar with at least one of the regions were asked to identify Conservation Commissions within that region for the study and to include at least one high-functioning and effective commission and also at least one that is in greater need of training. (To avoid potential interviewer bias, the informants were not asked to indicate the competency category of the recommended municipalities.) Within the chosen communities, the informants were asked to identify the staff person and, if possible, one more-experienced and one less-experienced member. For the most part, they identified the staff person who, as the first interviewee for their municipality, was asked to identify Conservation Commission members to approach – including who more-experienced and one newer or less-experienced member. The actual interviewees included 13 professional staff people (Conservation Agent or similar title) and 32 Conservation Commissioners for a total of 45 interviews.

Analyst's notes: One of the selected communities does not have a professional staff person; for two other municipalities, the staff person was known but not reached. An additional eight names of conservation commissioners were put forward, so the 32 commissioner interviews represent 80% of the names put forward.

Estimating the number of coastal conservation commissioners at an average of six per municipality, plus one staff person, for 78 municipalities, yields an estimated "population" for this study of 546. The 45 interviewees are about 8% of that population. The non-random stratified sampling procedure described above yields diverse perspectives on the training and information needs of the coastal communities' conservation commissions; because of the numerous sub-groups, this sampling approach does not provide statistical significance. Inevitably, it is the ongoing process of developing and marketing training programs and materials for these audiences will provide further validation of the training priorities indicated by this study.

For the purposes of analyzing the interview responses, it was important to determine whether to treat the 13 professional staff members separately or to combine their responses with those of the volunteer commission members. The staff members were significantly more likely to have relevant formal education (77% vs. 44% of the members; Chi-squared $p \leq .05$). They appeared to be somewhat more interested than the commission members in technical assistance as a delivery method, when compared with training workshops or informational materials (item 8). They reported participating in training sessions in about the same proportion as members (about 90%).

Review of the professionals' responses suggests that they tend to have a more detailed or complex

understanding of the realities they're addressing – although the same could be said for the commission members with long-term experience. The professionals' training and information priorities appear to tend toward specific tasks or challenges – for example, coastal wetlands delineation, erosion control, septic system design, barrier beach management and preservation – and often to encompass a sequence beginning with relevant scientific and technical knowledge and leading to appropriate technologies and best management practices. Also, the professionals were more likely to identify gaps in regulations or the application of regulations as a focus for training or other assistance. Also, several of the professional staff people made comments suggesting that they were more prone to talk about the training that would be useful for their commission members to experience rather than training or other assistance that they would personally find useful.

These various differences notwithstanding, there was no compelling reason to treat the staff members as a distinct group throughout the analysis. Because of the relatively small sample size, all 45 respondents were considered as a single group except as noted below.

The selected communities are shown in table which follows:

Table 1: Municipalities selected for the study, by region.

Region (78 municipalities) (In parentheses: number of municipalities in the region)	Municipalities in the sample (In parentheses: number of individuals interviewed; * means professional staff person was interviewed)
North Shore (20 municipalities)	Ipswich (3* individuals), Marblehead (3*), Newbury (3*)
Boston Harbor (8)	Boston (3*), Quincy (1), Weymouth (3*)
South Shore (11)	Marshfield (3*), Plymouth (3*), Scituate (2)
Cape Cod (15)	Barnstable (3*), Brewster (3*), Falmouth (1)
Islands (8)	Oak Bluffs (3*), Nantucket (3*)
South Coastal (16)	Dartmouth (2*), Fall River (3*), Marion (3)
TOTALS:	17 Municipalities / 13 staff + 32 members = 45 total individuals

Twenty-nine of the respondents reported their years of involvement in local government in coastal communities. The mean number of years of involvement was 9.0; the range was from one-half year to 30 years; (The standard deviation was 8.0.) This suggests that the sampling procedure succeeded in producing the range of experience levels that was sought. However, only 27% had two years' or less experience in local government in coastal communities. This could be representative of the years of experience of coastal conservation commissioners: there were several remarks in the course of the interviews to the effect that conservation commissioners tend to serve for many years, at least in some communities. Also, the question about years of experience was worded to include local government experience in other roles or other communities.

About half of the commission members interviewed stated that they have professional training or experience that they consider to be relevant to their role as a conservation commissioner. When asked, "Do you have formal education, training, or a degree that's related to [your] role [with the Conservation Commission]?" 9 of the 13 professional staff people and 15 of the 32 commission members, for a total of 53% of the respondents, said yes. Table 2 shows

the categories of training or experience for those 24 individuals.

Table 2. Distribution of professional training or experience.

Of those who reported that they have relevant professional training or experience... (n=24)
50% named degrees in the sciences (biology, wetlands biology, environmental science, forestry, natural resources science, geology, and marine resources); 18% in engineering (mechanical, civil); 8% in law 29% in planning, policy, and related areas (architecture/landscape architecture, urban affairs/environmental policy, marine safety & environmental protection, urban & environmental policy, political science, journalism, public administration, finance).

Some additional commission members identified job experience that they found helpful in their conservation commission role, such as working for a land restoration company and police work.

These realities have implications for Conservation Commission training:

- There is a considerable range, from one commission to another, in the percentage of members who have relevant professional expertise (and in how well the total expertise matches the issues and needs of the particular commission). This is probably an important contributor to differences in the overall effectiveness of commissions and also in their response to training opportunities at various levels of sophistication.
- There may be a number of conservation commissions that have several members with relevant professional background but other members without such background. Those lacking relevant background may feel less qualified to exert their views and may be in particular need of training;

Interview Findings

Issues

A core assumption in planning the interview questions was that the most pressing training and information needs – those which would motivate commission members to spend the time needed to benefit from training opportunities or informational materials – are those that are related to issues that have been challenging for the member’s commission. Therefore, the interview featured several questions about issues faced by the respondent’s community and by its conservation commission, in this sequence:

- A general question about the coastal issues facing the city or town (question 7)
- Ten more specific questions about issues facing the conservation commission (questions 7a-j and 8)
- Questions about issues that could be more successfully addressed if appropriate training and/or informational materials were available (question 9 A and B)

The general question about coastal issues (the first part of Question 7) was:

“In your opinion, what are the top coastal issues facing (your city/town)?”

This question produced, on average, almost three answers per respondent. By means of a content analysis, the responses were grouped into categories; there were ten categories with items from at least five of the 45 respondents. See Table 4.

Table 4. Response to Question 7: In your opinion, what are the top coastal issues facing (your city/town)?

CATEGORY	NUMBER OF RESPONDENTS	%	SAMPLE CONTENT
Coastal erosion	23	51%	Protecting banks; setback requirements; emergency applications; seawalls (including permitting and repairs, deferred maintenance of publicly owned seawalls); soft approaches to addressing coastal erosion (such as vegetation); making decisions involving new control technologies
Coastal development	21	47%	Construction near banks, dunes, on barrier beaches; expansion (sometimes without building permit or ConComm review), tear-down and rebuild,
Water quality	11	24%	Harbors, coastal ponds & embayments; N loading; septic and sewer systems; shellfish habitat; groundwater
Stormwater	8	18%	Runoff; impermeable surfaces; control and management
Habitat	8	18%	Fisheries, other wildlife; water quality for shellfish; in harbors; near docks & piers; tidal flats that should be good shellfishing but aren't
Coastal resources (misc)	8	18%	Salt marshes, barrier beaches, etc.; ACECs; conserving, protecting from pollution
Large-scale projects	6	13%	Proposed LNG terminal (2 municipalities); major dredging
Docks, piers	5	11%	Applications for private piers in significant shellfish or recreation areas; addressing pier applications when shellfish habitat is of low quality
Coastal flooding	3	7%	Lands subject to coastal flowage; FEMA zones, maps

That generic question about coastal issues was followed by ten more specific questions, in this format:

“Does your commission face any issues that are _____?”

The wording of the follow-on questions is shown in the table below. Note that the follow-on questions were not constrained to coastal issues.

Respondents did not name issues in response to every one of these questions. The percentage of respondents who replied to each of these items is shown in Table 6.

Table 6. Responses to Questions 7a – 7j.

Does your commission face any issues that are...	Percent of respondents who identified 1+ issue of this type
a. ...recurring in nature?	94%
b. ... “hot-button” topics in your town?	91%
f. ... “gray areas” due to lack of local bylaws and/or governing structure?	77%
j. ...issues that seem to be coming over the horizon – that look as if they may be important issues for your Commission to deal with in the next few years?	76%
i. ... issues that are highly technical in nature and therefore hard to assess?	74%
h. ... related to insufficient understanding by the commission of its regulatory authority?	66%
g. ... problematic due to insufficient inter-board communication (for example ConComm to Board of Health or ConComm to Planning Board)?	62%
d. ... related to town meeting decisions?	50%
e. ... motivated or shaped by the local political climate?	49%
c. ... linked to recent or pending state legislation?	32%

As a further indication of which issues commission members and staff would like to be able to resolve efficiently and successfully, the interviewees were asked,

8. Of the various issues that you’ve named so far, which one(s) have taken the most time over the last year?

Responses are summarized in Table 8.

Table 8. Issues that have taken the most time over the last year.

Coastal flooding (3)
Beach erosion, erosion control (2)
Barrier beach (3)
Issue regarding a specific barrier beach
One large-scale project
Central Artery [Boston]
Proposed LNG terminal
Revetments – shore
A seawall, built without a permit
How well does a proposed project address wetlands concerns?
Stormwater (“comes up with every project”)
Private piers
Piers vs. shellfish habitat
Wetlands restoration projects
Feuding neighbors
Addressing current applications (including site visits)
How well does any particular project address wetlands concerns?
Permitting and oversight time for new and rebuilt coastal structures
Monitoring and enforcement of projects – giving that sufficient time
Cases previously mishandled
Building in land subject to coastal flooding

Training and information needs related to issues

Question 9 asked about training and informational needs in this way:

9-1-A. Sometimes, the issues that local commissions and boards face require knowledge of subjects that members might not be familiar with. In some cases, access to the right training and/or information could improve the planning process and lead to better decision-making. Of all the issues you named so far, please name the one that you think would benefit most from training or relevant informational materials.

9-1-B. And what, specifically, would you want to get from training or informational materials regarding that issue?

(Those questions were repeated two more times, so as to elicit a potential three separate topic-areas per respondent.)

The 45 interviewees provided 113 items for an average of 2.5 items per person. The categories are listed in Table 10. Extensive quotations and paraphrases of the responses are presented in Table 12 – in some detail, since they provide important insights into the nature of the interviewees’ concerns and the sorts of training or information that may be helpful. Responses were grouped in categories which were identified in the course of content analysis.

Table 10. Categories of issues named in response to Question 9.

Response Category	# of mentions
Understanding the Laws and Regulations	11
Improving Local Regulations and Bylaws; Compliance & Enforcement Options	4
Participants in the Process	6
Defining and Understanding the Coastal Resources	23
How to Protect the Coastal Resources	10
Coastal Processes, Including Coastal Erosion, Coastal Flooding, and Flowage	6
Control Measures Related to Coastal Processes, Flooding & Erosion	8
Stormwater and Wastewater (especially in Coastal Areas)	4
Water Quality Issues	6
Estuaries	4
Structures	4
Public Access, Public Lands, and Aesthetics	5
Difficult Cases	5
Conservation Commission Procedures	13
The Need for and Capacity to Educate the Broader Public	1
Specific Training Content or Procedural Suggestions	3
TOTAL MENTIONS	113

Table 12

ISSUES THAT MAY BENEFIT FROM TRAINING OR INFORMATIONAL MATERIALS

UNDERSTANDING THE LAWS AND REGULATIONS

Good working knowledge of what the law is. (MACC does a lot of this.) [A considerable percentage of commissioners participate in MACC training, but probably not a majority. Many have difficulty with the schedule, the location, or the extensiveness of the MACC curriculum for conservation commissioners.] MACC ought to have a separate section or module for coastal issues.

Understanding state laws;

Understanding the Wetlands Protection Act;

State statutes and how they relate to each other and to ConComm

Good working knowledge of what the law is

Learn the regulations

Understand local by-law

Which decisions have to be reviewed at which levels?

Want to be clearer about Ch. 91 jurisdiction (ConComm role or lack of it), Army Corps jurisdiction.

Understand ConComm's obligation to enforce FEMA regs in coastal areas – different zones; 50% rule (if project adds more than 50% to the value...)

One town (Dartmouth) had a "Legal Matters" series with the town's legal counsel, for town government bodies and the general public, to review legal issues.

Scientific basis for restrictions on coastal banks and elsewhere / Regulations and enforcement need to be science-based – based on a clearer understanding of how the coastal zone functions

IMPROVING LOCAL BYLAWS AND REGULATIONS; COMPLIANCE & ENFORCEMENT OPTIONS

Need for full, competent local regs

Developing local wetlands by-law and getting approved (where one doesn't exist)

Modifying local by-law

Our town has been supportive of by-law changes [that the ConComm has put forward]

Achieving consistency between science and regulations [and implementation]

Buffer zone protection

Info re best ways to protect buffer zones, including consistent wording that could be incorporated into local bylaws (since state act doesn't say as much as it could)

We lean toward increase buffer zones relative to DEP's rules regarding buffer zones; are we right?

Foresee a possible local bylaw in relation to the Mass. Endangered Species Act, Natural Heritage program

Enforcement

Enforcement issues – make people comply

...shifting away from tendency toward compassion and forgiveness, toward higher compliance

Ticketing not especially useful; after-the-fact measures are rarely as good [as preventive measures]

People who don't comply: no strong regs (ConComm has been asked for regs to take to city council)

People who know what they're supposed to do don't do it – don't even apply
(which leads to enforcement orders, but with no hammer to beat them with);
new MACC draft by-laws may help ; will try for them
When Select Board or City Council don't back up enforcement, and don't allow Town
Counsel to, it's difficult
Concern that DEP may override, be more lenient than the Conservation Commission

PARTICIPANTS IN THE PROCESS

Learn which agency does what
Which decisions have to be reviewed at which levels?
Keep up with the acronyms
State, federal, and local roles – and best ways to preserve the coast.
Understanding intergovernmental relations (CZM, DEP, local) [as needed by ConComms
to carry out their role]; also, simplifying governmental processes

DEFINING AND UNDERSTANDING THE COASTAL RESOURCES

Commissioners and public will understand and appreciate coastal wetlands as a resource.

Clarify definitions

Define “coastal banks” (3)
Understanding, interpreting barrier beaches / ...and coastal flood plains
Understand land subject to coastal flowage as a resource area
Bays and estuaries
What makes something a wetland?
Understanding the value of wetland resources (even in urban environment – even where
the wetland resources aren't as beautiful as elsewhere)

Delineation / Surveys / Mapping

Wetlands delineation (esp. coastal / not *just* coastal)
All ConComm members would be able to delineate wetlands, or at least several;
don't want to *have* to rely on agent, or members with that skill (who might need
to recuse themselves in some cases, or hired consultant)
All members would understand the delineation criteria and process
Info about geology and soil samples [soil types], specific to our locale, in relation
to delineation

Dune delineation

Delineating coastal banks (A-zone, V-zone; differences in interpretation)
Delineation of coastal resource areas, but also their *significance*;
they're complex; want to know what the basis is for our decisions, conditions.

Resources for mapping;

Can we upgrade our GIS without doing a major land survey?

Identifying bordering vegetative wetlands

Habitat & Wildlife

- Understanding of ecological issues, habitat issues (biology)
- Habitat assessment: what to look for? Are there standardized methodologies?
- Habitat issues – case studies to classify
- Wildlife habitat: what's allowed by the state is sometimes problematic for wildlife
- Shellfish habitat
 - ... How to do a good shellfish survey
 - ... Shellfish habitat and impact of docks and piers
- Harbor ecology
- Fisheries; Water quality with respect to fisheries & shellfisheries
 - General impacts on fisheries, shellfish
 - Actual impacts on various communities and species
 - Tidal flats that should be productive shellfishing but aren't
 - Status of eel flats, fish runs; impact of various activities
 - Scientifically sound assessment of biological impact of projects – how to interpret data? – when is impact significant?
 - Example: Does stirred sediment adversely affect shellfish?
- How to deal with owners who want docks or piers even at the expense of shellfish habitat
- Defining/identifying wildlife habitat “out past the ‘slosh zone’”
- Invasives – assessment / management
 - Phragmites
 - Pepperweed

HOW TO PROTECT THE COASTAL RESOURCES

- How to protect coastal water resources (banks, beaches, plants,...)
- Understanding of the interests we're trying to protect, why we're doing all this
 - [ConComm work]
- Protection of coastal waters, esp. ponds
- Protection of shellfish habitat
 - Not really addressing potential shellfish contamination
- Protection of eel grass and shellfishery in the harbor
- Status of eel flats, fish runs; impact of various actions
- Buffer zones: is there scientific evidence as to which projects have impact?
- Info re best ways to protect buffer zones, including consistent wording that could be incorporated into local bylaws (since state act doesn't say as much as it could)
- What Orders of Conditions will be effective?

COASTAL PROCESSES, INCLUDING

COASTAL EROSION, COASTAL FLOODING, AND FLOWAGE

- Understanding coastal beaches, dunes, movement of same
- Necessary to keep reviewing how ocean works: currents, re-nourishment of beaches (and what alternatives).
- Training re shoals, benthic communities
- Mining the shoals for sand – implications/impacts
- What the 10-year and 100-year storm are [what these phrases mean]
- FEMA maps for flood zones adopted but confusing
- What questions to ask in relation to coastal flooding (A factsheet topic)

- Extreme events
 - Preparation planning
 - Possible increasing frequency due to climate change
- Sea-level rise

CONTROL MEASURES RELATED TO COASTAL PROCESSES, FLOODING & EROSION

- Coastal erosion control
 - Managing down-draft sediment transfer including transfer across state lines.
- Coastal beach and dune management
 - Appropriate stabilization measures; soft vs. hard measures; accessing info regarding “soft” measures (vegetative controls, etc.)
- Review regulations and best management practices regarding land subject to coastal flowage
- Best technologies / practices; how to evaluate technologies and their impacts, ...including new technologies – sufficiently well-informed to feel confident in our decisions
- Up-to-date assessment of recent and emerging technologies – for example, plastic dune guard does shatter and enter the marine environment
- Seawalls: when to grant permits
- Structures; best methods to manage [including one case of municipality responsibility to maintain state & federally-built seawalls and jetties]
- Modifying / armoring coastal banks
- Emergency applications to jack up and move houses at risk of going over eroding cliffs. When to say no. When should building department condemn the house? the lot?
- How stringent to be – for example, construction setbacks from an eroding coastal bank
- Emergency action vs. proactive measures.

STORMWATER AND WASTEWATER (ESP. IN COASTAL AREAS)

- Stormwater and impervious surfaces
- Stormwater control/management
- Stormwater as source of non-point-source pollution
- Stormwater control-structure design / Stormwater treatment technologies – information on effectiveness of treatment technologies and on proper installation, operation, maintenance (conflicting info: some technologies not as effective as hoped re removal of suspended solids)

WATER QUALITY ISSUES

- Surface and groundwater
- Nitrogen loading; sources and controls; sources and cycling of N
- Knowledge of septic systems [technologies and regulations]
- Septic system design
- Septic systems (including failures); septic systems and N
 - Septic systems adjacent to drinking water supplies
 - Whether to sewer coastal areas [with risk of spurring even more rapid development]
 - Impact of leaching into estuaries and bays

Alternative septic systems – e.g. “IA” septic systems to produce low N in outflow to leach field– how to understand and evaluate them
Are there better filtration systems than a 50-foot no-build buffer zone, that we should propose or approve?
Contamination from sewage resulting from excess runoff [storm sewers flowing into sanitary sewer system?]
Non-point sources; runoff
Water quality in coastal ponds and embayments; eutrophication of bays and estuaries
Protecting marshes and rivers from pollution
Appropriate orders of conditions for bridge painting projects; monitoring & enforcement
Salt marsh regulations

ESTUARIES

Need to define “mouths of coastal rivers” (DEP has clarified somewhat)
Upstream influences; trying to maintain BMPs
Riverfront and ag regulations (workshops have been offered)
Waterfront issues; waterfront and riverfront projects

STRUCTURES

Permitting of docks, piers, and floats
Pier regulations
Deciding about impacts, permitability
Best guidelines? – DEP small piers and docks manual?
Address conflicting info: ACEC requires a formal management plan; contrary information from applicant (and DEP tends to accept less)
Septic system design and stormwater structure design [repeated from elsewhere]

PUBLIC ACCESS, PUBLIC LANDS, AND AESTHETICS

Public access (4)
... coastal access and tide-land access
... trying to utilize our coastal park optimally
Aesthetics – [local?] wetlands by-law has an aesthetics clause (2)
Maintaining public (town-owned) lands (which the ConComm is charged to maintain) – difficult without a budget for it; some volunteers available, but how to pay for managing them?
Open Space Management – training in plan development, esp. for municipally owned open space lands (including land being purchased with state funds)

DIFFICULT CASES

Increasing numbers of difficult cases (since easier, less-problematic land has already been developed in many communities); Increasing use of marginal lots [increasing % of applications involve building on marginal lots]
Filings for tear-down-and-rebuild
Projects in proximity to coastal banks
Additions or tear-down/rebuild is producing bigger, larger structures – sometimes in areas where they aren’t appropriate (especially common on coastal properties)
Encroachment on coastal banks

- Existing structures in dunes, on barrier beaches, overhanging coastal cliffs
- Septic applications, failures in sensitive areas
 - Differences in interpretation, stringency between Boards of Health, ConComms
- Cutting trees in protected areas
- Applicants' attitudes regarding the above types of cases:
 - Developers stretching their limits
 - People who know what they're supposed to do and don't do it (don't even apply)
 - Building without permits
- Density of development; open space vs. development
- Large-scale projects
 - Dredging projects – how to go about addressing them, what level of mitigation
 - LNG facility siting; risks, safety issues, such as a nearby chemical plant
 - Cumulative impact of many and/or large-scale projects

CONSERVATION COMMISSION PROCEDURES

- Drafting good orders of conditions
 - How to condition projects adequately
 - ... at initial stage
 - How to decide what level of mitigation to pursue
 - Weakest here; not confident that orders really address conditions.
 - When stipulating conditions, how to assure that those conditions are consistent
 - not only with the regulations but also with the underlying science / How to be sure that OOCs are based on good science / and engineering / – for example whether various dredging technologies will affect species.
 - Which technologies will work?
 - How will habitats and species be affected [by a project, by possible OOCs/mitigation measures]
 - When are restrictions linked to time of year appropriate?
- Replication areas: how to evaluate plans, make sure they're *bona fide*, monitor, etc.
- How to run a good meeting (training for all members, not just chairpeople)
- Third-party consultant use (define the process, clarify issues regarding site access, interaction of consultant with applicant, with ConComm)
- Dealing with people who're trying to pull the wool over our eyes.
- How to be sure we're acting within the law; how to conduct ourselves outside meetings
- Several commission members don't know what they're doing, what the role is, proper basis for decisions; vote their heart, not what's sound or allowed; lack understanding of regulatory authority (3)
- Would like to see a way to streamline ConComm processes – minimize the time for projects that really just need building permits (where ConComm really doesn't add much)
- Agricultural exemptions – clarify the policy; when do they cross the line
- Integration of town hall processes so that various departments have a handle on what the others are doing (Information-sharing among them should be automatic)
- Dealing with cases where town entities are the offender
- How to integrate [coordinate] better between ConComm and Board of Health, especially regarding N – convince them to help.

How to get the Planning Board to deal with specific problem situations (ex.: cottage colonies)
 Going across town boundaries: discussion, dialogue with other Commissions [that may be] doing things differently

THE NEED FOR AND CAPACITY TO EDUCATE THE BROADER PUBLIC

[Generating greater public] understanding of wetland resources
 General public's understanding of wetlands as a resource. Also, land subject to coastal flowage [as an area of concern]
 Issues regarding dues: grasses, barrier beach vs. development; lawns

SPECIFIC TRAINING CONTENT OR PROCEDURAL SUGGESTIONS

Coastal add-in to MACC curriculum
 We'd be fine if people would take advantage of training that's already being offered; everything necessary is being covered.

What Do Respondents Want?

For some of the training and information needs stated in relation to coastal issues, respondents identified criteria or indicators of success. These comments provide further indication of the types of training or information that would be useful. In general, they favor practical guidance that will help them fulfill their roles more effectively and efficiently. Examples are listed in Table 14.

Table 14. Respondents' criteria or indicators of success for training or informational materials.

<p>Protecting the coastline: We will know what different towns are doing. Development on the riverfront: We will be able to distinguish perennial vs. intermittent streams. Permitting and docks: We will understand the state's position. We will have guidance regarding how the ConComm is to act. We will be able to resolve conflicting information: ACEC requires a formal management plan, but contrary information can be found in the application. Stormwater management: Accurate technical information DEP will review its position; there will be more information [and assessments of the technologies] that is independent of manufacturers' studies [which is what we often have to go by now]. Wetlands Protection Act: Deep working knowledge, including the nuances of the regulations. Buffer zone protection: Consistent material that outlines the best ways of protecting buffer zones; material that could be incorporated into local by-laws. (State Act doesn't say as much as it could about buffer zone protection) Nitrogen loading: would want DEP to come up with regulations that address it rather than going with Title V that doesn't really address it. Erosion control: Are there soft erosion controls that have worked in similar [situations,] environments to ours? Watershed, water quality, nitrogen, etc.: Understand how the regulations could actually be used. Scientific background applied to decision making Wetlands delineation: A good number of Commissioners [on any particular ConComm] would know how to delineate.</p>

Make sure the ConComm has solid ground to stand on. What interests a ConComm is protection, applicant's restrictions [orders of conditions], etc.

Water quality protection – especially coastal ponds: Give us good information, help us to understand appropriate actions – Let us discuss it and draw conclusions (and/or the opportunity to get back [to expert] with our follow-up questions.

Preferences for Workshops, Informational Materials, or Technical Assistance

After they identified issues that could benefit from training or relevant information, respondents were asked,

For the various types of training or information needs you've named in the last couple questions, which types of assistance would be helpful:

- ☐ Training workshops
- ☐ Technical assistance – provided with attention to not only responding to the immediate situation but also leave an increased capacity within the Commission to address similar issues in the future
- ☐ Information summaries focused on your issues, in the form of print materials or web pages

Responses are summarized in Table 16.

Table 16. Preferences for workshops, informational materials, or technical assistance.

26 (59%) endorsed one or both forms of informational materials (print, web),
 25 (57%) endorsed training workshops
 12 (27%) endorsed technical assistance as described in the wording above.

Analyst's notes: Respondents were not limited to one response, so responses total greater than 100%. These tallies included two who endorsed all three, two who specifically recommended a “workshop + materials” combination, and one who recommended a “technical assistance plus materials combination.” Also, of the 26 who endorsed informational materials, 17 did not specify print or web-based materials, eight recommended print, and two recommended both.

Local and State Collaborators

Respondents were asked,

With what other local boards or departments does your conservation commission work most closely?

A first and second response were recorded. The town units named by more than one respondent are listed in Table 18, sequenced according to the number of respondents who mentioned them first.

Table 18. Local boards or departments with which the conservation commission works most closely.

Planning Board (12 first mentions, 4 second mentions)
 Boards of Health (7, 11)
 Highway Department/DPW (5, 3)
 Building Department / Inspection Services (4, 4)
 Zoning Board of Appeals (3, 5)
 Shellfish Department (1, 1)
 Town Administrator (1, 1)

Analyst's notes: Not all mentions were for positive reasons: one DPW was mentioned as a “worst offender” and another DPW was mentioned “because they cut trees in a buffer zone.” One planning board was

mentioned not as a board the ConComm interacts frequently but to state that they “Never!” interact.

The same question was asked about interactions between the Conservation Commission and State agencies. Only two received frequent mentions:

Department of Environmental Protection (18 first mentions, 5 second mentions)

Office of Coastal Zone Management (6, 6)

Two divisions of the Massachusetts Department of Fish and Game received a total of five mentions: the Massachusetts Division of Fisheries and Wildlife and its Natural Heritage program were mentioned by three respondents and the Division of Marine Fisheries by two.

Twenty-eight respondents answered this question:

11. In your opinion, would training that involves two or more local boards or commissions that work on a specific coastal issue be valuable?

Twenty-six (93% of the 28, 58% of all respondents) said “yes.”

Twenty respondents answered the corresponding question:

12. In your opinion, would training that involves one or more local boards or commissions – along with regional and/or state agencies involved in a specific coastal issue – be valuable?

Eighteen of the 20 (90%; 40% of all respondents) said “yes.”

Analyst’s notes: Most of the respondents who answered those questions volunteered topics and/or suggestions about appropriate partner units of government (usually specific to the topics they recommended). These are listed in Table 20. The responses suggest that many who responded may have envisioned collaborative problem solving rather than – or as a major part of – a more conventional training workshop.

Table 20. Suggested Topics for Multi-board Workshops

Topic	Board or commission recommended for participation
FEMA flood regulations, coastal construction manuals, and guidance documents: How to use them under the Wetlands Protection Act? What role for ConComm?	
Coastal [visual] survey: look at the bluffs together, with the guidance of a Woods Hole expert Any coastal community issue	Planning Board
Examine differences in buffer zone requirements; competing stipulations (ZBA: honor front setback, CC honor wetlands buffer setback) Docks and piers	Zoning Board of Appeals (also with Marine Resources Commission, ZBA)
Wastewater Septic systems (Comment: ConComm and Board of Health differ re adequacy of Title V with respect to N near bays and estuaries)	Board of Health
Water quality and shellfish	Shellfish officer, Board of Health, Planning Board
Coastal processes Coastal flooding; establishing floodplain zoning Seawalls; protection of structures along the coast Impermeable surfaces	Not specified
Topic not specified	Board of Health, Planning Board, Water Dept.
Have done some [of this sort of coordinated training] with neighboring towns Nitrogen	With ConComms from multiple towns

The corresponding question regarding training that involves regional or state agencies (Question 12, shown above) produced the responses shown in Table 22, below.

Analyst's notes: There were fewer suggestions regarding collaborative workshops with state agencies. Perhaps this was because state agencies are seen as a source of training and also regulatory guidance, whereas what was being proposed is a more collaborative, co-learning partnership involving local and state government – which could be challenging to imagine. It may be because of that that many did not respond to this question (yes *or* no) nor identify suggested topics and appropriate state department participants.

Table 22. Combinations and Topics for workshops regarding coastal issues involving “one or more local boards or commissions along with regional and/or state agencies.”

Topic	State agency recommended for participation
<p>Sessions with people from [several] different divisions of DEP</p> <p>Docks and piers [if they brought a state “docks and piers” person]</p> <p>Septic Systems (with local Board of Health, and state DEP)</p> <p>Embayments (new state estuary regulations)</p> <p>If we sat down and chatted (state agency, such as DEP, with ConComm), it would be helpful: they would understand why ConComm does what it does, and then the review process would be better.</p> <p>Circuit riders’ presentations (DEP) [are good but] presentations are always “someplace else” and during the day.</p> <p>Chapter 40B</p>	<p>Department of Environmental protection</p> <p>DEP ran a meeting regarding a specific 50B project [which was useful]; Fish & wildlife, CZM, and EOE were represented.</p>
<p>Cape-wide ConComm staff member meeting (convened monthly by CZM) is a good program, but with low attendance. Commission members could come too.</p>	<p>Office of Coastal Zone Management</p>
<p>Phragmites (with neighboring towns, too)</p> <p>Tidal ponds</p>	<p>Agency not specified</p>
<p><i>General comments regarding format or broad areas of content:</i></p> <p>Would like a blank slate to try things [sessions with an open-minded or open-ended approach to topic]</p> <p>Would like a road show to each community [or possibly multiple, neighboring towns].</p> <p>Road show could address some basic issues and/or could be tailored to each community.</p> <p>Could be followed by regional sessions that could go more in-depth regarding shared issues.</p>	<p>Agency not specified</p>

Initial Training and Information for New Conservation Commission Members

Respondents were asked whether they received some sort of orientation session, briefing, training, or informational materials when they first became a conservation commission member. By far, the most common type of preparation reported was print materials. See Table 24.

Table 24. Types of preparation reported for new members.

Category	Number of Mentions
A handbook or written background material	33
Orientation session or briefing [group or one-on-one]	7
Informal briefing regarding specific projects	5
Formal training (early during their time as a member)	5
Went along on site visits	5

The printed materials most frequently provided to (or made available to) the new member(s) included the state Wetlands Protection Act, other state regulations, the local by-law, the MACC Handbook for conservation commissioners.

Several difficult-to-categorize responses provide additional insights:

Missed MACC training because didn't receive notification of it, either directly from MACC or forwarded by someone who received it.

Went to MACC training; would have meant more if I had had more experience first.

Served as an associate member first; went to meetings for 3-4 months before becoming a full member.

Had experience on another local board (planning board).

Each ConComm member used to present a project (application), which forced us to read and study that application carefully.

ConComm retreat to air issues; guests came in from other town government units.

Learned by listening a lot during meetings – relatively quietly.

“What they handed me was a lot of dry reading. I mostly learned by doing.”

“It could be improved.”

Analyst's note: One relatively new member of a ConComm which has mostly experienced members who mostly have relevant professional experience, found it difficult to ask questions either during meetings or between meetings – this despite the fact that that Commission's conservation agent reported several conscientious steps aimed at bringing new members up to speed. It may be that new members, and especially members who are “citizens at large” without specific relevant professional expertise, may feel under-prepared – perhaps especially so in high-functioning commissions with abundant professional expertise. If such people are relatively quiet as a result, the situation risks leaving the “citizen voice” under-represented; it also risks leaving a less effective commission if several of the more experienced members with relevant professional expertise were to step down at about the same time.

Respondents were asked “what kinds of training or information do you think might be helpful in bringing new members up to speed? Responses are listed in Table 26.

Table 26. Types of training or information identified as potentially helpful to new members.

An overview course
A half-day orientation session, offered twice a year. Could be multi-town (neighboring towns).
Field training in wetlands delineation
Acronyms defined
DEP's guidance re coastal wetlands regulations
Jurisdiction, authority of ConComm (2)
It's essential to read the regulations and to understand what the jurisdiction [authority] is.
New commissioners need to understand that the Commission's function is not to change the world, but to make good, sound decisions. Therefore: need orientation to the regulations.

Send people to MACC conference and individual training modules
 ... but would need to be offered nearby
 A retreat [of the whole commission], with emphasis on our heritage as town Conservation Commissioners [the responsibilities, the tradition, etc.]
 Information on types of mitigation measures that proponents should be providing – typical projects and the corresponding appropriate orders of conditions
 Dealing with projects that involve borings, dredging, dewatering
 Defining wetlands areas
 How the conservation commission is looking at a lot of things
 Show DEP's film [video]: Introduction to the Wetlands Protections Act
 Training on the Open Meeting Law, procedures
 Training on the appeal process
 A summary of recent decisions and litigation from our own community and elsewhere.
 Orientation regarding local resource areas
 Orientation regarding commission protocols
 Process skills (2)
 ... would be important for anyone who hasn't been involved in running meetings.
 All (not just the chair) should have training regarding how to conduct meetings (fairly, but moving along)

Personal Experience with Training

A group of questions addressed respondents' personal experience with training. Thirty-three responded to this question:

Have you ever been to a training session designed to help you perform your duties as a Conservation Commissioner?

The vast majority of respondents have attended training related to their ConComm role; of the 33 who responded to this question, 29 (88%) responded "yes." Nine of the 29 were ConComm professional staff ("agent" or similar title); 20 were members. (The largest group of non-respondents to this question were those who had indicated that they were pressed for time and who therefore received a shortened version of the interview.)

Those who had attended training were asked to briefly describe one recent training event. The most-frequently-named sponsor of training is the Massachusetts Association of Conservation Commissions, followed by DEP. WHOI and CZM received several mentions. The Cape Cod Community College received several mentions as a site for training. The Cape Cod Commission, the Massachusetts Association of Wetlands Scientists, the Cape and Islands Association of Conservation Commissions, and the Martha's Vineyard (multi-town) joint meeting of conservation commissions were all mentioned at least once.

When asked about the content of the recent training event that they named, respondents most frequently named the MACC series of modules for conservation commissioners or the training at MACC's annual meetings. Other topics mentioned are shown in Table 28.

Table 28. Sample content of a recent training activity.

MACC Annual Meeting sessions	Wildlife habitat evaluation
Wildlife habitat evaluation	Wildlife habitat guidance
Soils classes	Acquiring land for conservation
Invasive plants	Hydric soils
Open Space and residential	Wetlands soils identification
Sea level rise	Bordering wetlands vegetation (BWV) delineation
Chapter 91	Riverfront Act
River restoration	New 50-foot buffer zone

It is noteworthy that most of these topics are not primarily coastal topics. Two respondents mentioned that it would be valuable for MACC to have an additional training module in its series specifically for coastal community conservation commissions. (This idea is embodied in the concept of a “ConComm 101/Coastal” training course, in the Recommendations section at the end of this report.)

Participants in these various training activities were, almost without exception, satisfied or highly satisfied with their training experience. Twenty-two respondents provided ratings along a four-point scale (highly satisfied / satisfied / unsatisfied /highly unsatisfied). The responses were:

12 highly satisfied, 9 satisfied, 0 unsatisfied, 1 highly unsatisfied.

The “highly unsatisfied” response was attributed to insufficient depth and a sense that the session was PR for the sponsoring organizations rather than science, policy, or problem solving.

Some of the respondents who described a recent training experience stated the nature of the benefit they experienced from it. These respondents were, of course, describing sessions that addressed a variety of different topics:

- Got “updated”
- Got an idea of what local issues other ConComms are facing and how they are addressing them.
- Meeting people with more or different experience
- Getting together, networking, talking about relevant issues with other local officials
- Meeting people with more or different experience
- Understand how aquatic herbicides can be effective without harming non-target processes
- Overview of regulations from different perspectives – taught by people with different experiences in towns
- It pointed out that vegetation is key [in preventing erosion] – and that DEP doesn’t care for hard structures [to prevent coastal erosion]
- Learning how a river restoration planner goes about it – what to consider

Some respondents worded their comments in terms of what makes for top-quality training session:

- Agents and commissioners have the opportunity to raise real-world cases
- CZM Coastal Coordinator Meetings
- Hearing from people with similar problems – for example, how they address beaver dam management
- Agents ask questions of each other
- Developing relationships with other commissions, especially similar ones.

Success Stories

Toward the end of the interview, respondents were asked,

Do you have a success story that you'd like to share – something that your Conservation Commission or town addressed in such a way that it could serve as a lesson to be learned for other communities?

Thirty-three respondents provided an answer – some very specific, some general (or a category of activities); some of them works-in-progress (or “outcome pending”), some complete. They are presented here for several reasons: (1) as an indication of things that at least one commission may be doing well; (2) as potential sources of case studies for future training events or informational materials; (3) as a reminder that peer-to-peer learning, including the sharing of successes, can be a valuable and effective approach to capacity building. The responses:

- We encourage public access to waterfront in all projects.
- We've looked for ways to mitigate coastal issues and improve the coastal situation.
- We've acquired land through the Community Preservation Act.
- Local wetlands protection by-law – ours may have been the first.
- Numerous enforcement actions
- Enforcement: selective enforcement of significant violations – when we go to the mat, have been successful in court; selectmen and town counsel back us; gives a reputation of having “teeth”
- Stood up to an application from a major transportation company that would have involved changes to a coastal bank.
- We help people get through tough things on a little property and help them avoid having to spend thousands of dollars for an engineer.
- Achieved a really good order of conditions for a yacht club's application; held numerous hearings [in a context of major controversy], made many suggestions to applicant.
- Land Management – controlled burns /fire safety
- Our town is holding people to within certain areas for building; town is sticking to its guns, but working with others.
- Dealing with Plum Island
- Researched deeds for eight tax-title properties (held by the town because of non-payment of taxes) so that they could be converted into conservation land
- A particular wetlands restoration project
- A salt marsh restoration
- Completed a technically complicated wetlands restoration with 50+ partners which received a presidential award.
- Being astute regarding riverfront regulations
- Stormwater management, under our by-law, with review by a hydrologist
- Mitigation re developments
- Dock regulations – A year of work produced compromise regulations [that we felt good about].
- We responded to a cutting of trees in a buffer zone by pressuring the landowner, which led to an agreement to replace the trees, inch for inch.
- Creation of the Southeastern Mass. BioReserve
- Abigail Adams Park – on the ocean, connects with the Great Esker – is a treasure. Happened largely through the Planning Department's efforts.
- Care of the (Boston) Harbor Islands State Park

- Conservation Commission adopted policies, without a local by-law – not enforceable, but provides buffer zones (no cutting within 15 feet of wetlands, no clearing within 30 feet).
- Getting this message out: “Come and talk to us *before* you start.”
- Sometime we scare applicants enough to cause them to withdraw their applications.
- Pier not up to specs; went to town counsel but selectmen stopped the money [for town counsel to work on it]. [Negotiated our way to this] end result: a smaller pier plus donation to the shellfish department plus a fine (plus an agreement not to publicize the fine).
- Protected a barrier beach.
- When faced with redevelopment applications on land that doesn’t meet the current buffer zone protection requirements, the commission is regulating an enhanced buffer zone.
- Maybe: our handling of a deck-built-over-a-cliff situation; whether to count it as a success depends how it plays out.
- Conducted a boat trip to examine sites that included ConComm, Planning Board, some selectmen, staff, and experts – and some citizens who had hearings pending.

Observations

Regarding the audience for training and informational materials:

- Respondents had no difficulty identifying topics (issues) that they believed “would benefit ... from training or relevant informational materials.” Only one interviewee of 45 believed that it is “all being covered” and identified no issues or topics in response to question 9.
- Even people who – as engineers, architects, or other professionals – have made presentations to Conservation Commissions may need or welcome assistance during their start-up period as commissioners. They may welcome overviews of the relevant acts and by-laws.
- High-functioning boards may be such because their members bring a useful mix of skills, training, and experience (environmental sciences, engineering, design professions, legal, etc.) as well as a “citizen” perspective. However, when such a commission loses one of its skilled members, it may experience a gap in expertise and suddenly need training or technical assistance to fill the gap.
- Even within high-functioning commissions, new members may be in need of additional preparation. They may be in awe of the skills (often: professional skills) of the more experienced commission members, and they may consider their commission colleagues and agent to be too busy to answer their questions. This could lead to a risk of high functioning boards finding themselves insufficiently “backed up” if several experienced members needed to leave the commission at about the same time.
- Many commissions do have some general “citizen” representatives in addition to those who bring professional expertise. Some of these people proudly claim their role (“I’m the one who asks the dumb questions”) while others may be intimidated by the professional expertise (or by the way in which it is put forward) and may be low-input members.
- It may be helpful for more-experienced members to establish mentoring relationships with newer members, so as to contradict the sense that they are too busy to ask them questions. It may also be helpful for newer, less-experienced members to establish peer relationships with less experienced members from other communities.

Recommendations: Possible New Directions for Training and Informational Materials

Training Topics

The list which follows is a set of possible training session topics for consideration.

ConComm 101: An overview of the functioning of conservation commissions and the roles and responsibilities of its members, designed primarily for new members. Legal basis, scientific basis. Procedural options (orders of conditions, etc.), enforcement, litigation, etc.

Format and Media: Half-day to one-day course offered at multiple locations (maximum drive 1 hour each way). Also available online and/or in print – but interaction with other new members and with resource people would be valuable. Combination of face-to-face session plus good self-study materials would be ideal. Participation in local site visits with the staff person or experienced members, and other experiential learning activities, should be strongly encouraged as part of “ConComm 101.”

Rationale: Initial training and preparation for new conservation commission members varies considerably from town to town. Reading matter (state Act, local by-law, MACC handbook, etc.) are helpful but not sufficient for new members to develop confidence. MACC curriculum is highly rated, but it takes many months to complete it and some people can’t find time to attend. Especially in high-functioning and “professionalized” commissions, new members can be cautious about taking the time of the experienced members or the staff person by asking naïve questions.

Potential audience: All commissions, especially new members.

This recommendation is based on the fact that Commissions rely heavily on distributing printed materials to prepare new members. Comments indicated that the volume of such material can be overwhelming and that it often is inadequate preparation. Commissions do not necessarily bring on new members every year, but over time, every commission (coastal or otherwise) could benefit from the availability of such a training opportunity (or a self-study counterpart – see below).

ConComm 101/Coastal: “ConComm 101,” as described above, would be appropriate for any of the Commonwealth’s 351 municipalities. ConComm 101/Coastal would be a special version of it, specifically designed to address issues that frequently arise in coastal communities. From the perspective of CTP, this would be the plausible place to start.

Potential audience: All coastal commissions (78 municipalities), especially new members. Same rationale as previous item, but with some of its content designed specifically for the commissions in coastal communities.

MACC Coastal Module: This would be a more detailed or advanced course, intended to supplement the MACC Conservation Commissioner curriculum modules with an additional module designed specifically for coastal community commissioners. This would, of course,

require involvement of MACC – presumably in collaboration with CTP partners and/or other organizations that could provide coastal expertise. The multi-page outline of topics in this report (“Issues That May Benefit from Training or Informational Materials”) could serve as a starting point for developing an outline for the module. This module and the coastal components of ConComm 101/Coastal could be developed simultaneously.

Potential audience: All coastal commissions (78 municipalities). Rationale similar to previous item.

Focused Workshops:

Workshops are appealing, but there many commission members and staff indicated that it is difficult to find time in their busy schedules to attend training – all the more so when substantial driving time is required. If a workshop is focused on a specific topic that is important to particular communities, with indication in the publicity that it will help to resolve problematic issues, the prospects for attendance are higher (compared with more generic training). Any one topic will not appeal to all coastal communities, but is likely to appeal strongly to those for which it is relevant.

Sample topics for focused workshops

- **Coastal processes, coastal erosion**, mitigation options (especially “soft structures” and vegetation), evaluating new technologies, scientific and engineering basis for preferring particular approaches.
- Overview of **state laws and regulations** – including how they relate to one another and to local bylaws.
- **Local wetlands bylaws and regulations** – the process of getting one in place (for those communities that don’t have one), updating them. Local by-law revisions – when to update and when to work around. What to include in updates. (Not explicitly recommended as a topic, but mentioned frequently as something that happens, and sometimes mentioned as problematic.)
- Crafting effective **orders of conditions** (OOCs)– understanding the underlying science and the options; creating OOCs that will be followed.
- **Habitat requirements** for various species of interest. What OOCs will work. Systems for deciding when to write off a particular site rather than pursue habitat maintenance or restoration.
- **Enforcement, credibility** – how to monitor compliance and enforce rulings and OOCs. When to fine, when to use “softer” approaches, when can negotiated solutions work. What to do when municipal government has no interest in enforcement or court cases (and therefore doesn’t back up its Conservation Commission’s decisions); how to maintain credibility and clout.
- **Delineation** of wetlands and coastal resources – increasing the number of people in each municipality who are capable at doing this. Enhancing the understanding of others, even if they don’t aspire to be able to delineate the wetlands.

- **Buffer zone** delineation and management; differences between towns and between agencies in size of and limitations on buffer zones. Procedures for successful implementation of buffer zone regulations and conditions.
- **Coastal flood plains** – delineation, restrictions. Need for greater clarity than FEMA or the state agencies currently provide. ConComms’ roles in preventing and/or addressing issues related to storm damage.
- **Estuaries** – riverfront development; special issues related to the mouths of rivers (related to the fact that they are tidal, brackish, impacted by coastal storms, etc.)
- **Inter-board coordination** – Resolving competing perspectives of different town boards. For example, conservation may want structures and septic systems back from eroding coastal banks, whereas zoning or health may feel compelled to give priority to other criteria for their placement.
- **Land protection**; management of protected lands. In some communities, ConComms take initiative to bring lands under protection through various means. In some cases, ConComms are responsible for management of municipally owned conservation lands or of disposition of environmentally-sensitive lands that a town has acquired by tax default or other means.
- **In-water structures** and activities, including docks, including docks and piers -- what’s really required? what activities and structures are problematic? Which conditions help? When are time-of-year restrictions helpful?
- **Large-scale projects**: LNG facilities, dredging, major harbors – including issues of identifying real problems, evaluating technologies (such as methods for disposing of contaminated sediments), etc.
- **Difficult situations** – Construction without building permits or ConComm application, houses going over cliffs, cuttings in buffer zones, town departments as offenders, etc. The session could address a mix of pre-selected and “from the floor” cases. The promise of getting expert advice regarding challenging situations could be very attractive.
- **Process Skills** – The interview questions included rather minimal inquiry as to process-related knowledge and skills as possible focal points for training events or informational material. Several were identified that could be combined in a processes and procedures-oriented workshop: running effective meetings (for all members, not just chairs), conducting site visits, working with consultants.
- **Public education** – designing effective means to help the public understand the wetlands as a resource and understand their obligations under the Wetlands Act, local by-law, and regulations.

Sessions with flexible content

The workshop topics listed below are flexible in content, or use problem solving techniques to address particular local or regional issues, or are unique in some other aspect of their content, audience, or setting..

- **Capacity-building** and training needs. One interviewee suggested that the sorts of questions included in the interview would be valuable for commission members to discuss. The objective would be to develop a shared understanding of the issues that are challenging and

the sorts of training activities or informational materials that could help address those issues. Could involve multiple towns but, ideally, several commission members per town. Could involve dialogue with CTP staff and others who could provide training activities or informational materials.

- **Emerging topics.** Perhaps a periodic (recurring) gathering of conservation commission members and staff, probably from a particular geographic area (to minimize travel time and, to some extent, to assure that there are similar issues), to discuss a topic or topics that are identified at the start of the gathering (or at previous ones). Could be very successful or fall flat, depending largely on the presence of a leader who is able to help the participants spot the emerging topic(s) that deserve attention.
- **Multi-town Special Meeting** – A variation on the focused workshops, when neighboring municipalities are working on a specific shared issue. Topography suggests some appropriate clusters (Falmouth-Mashpee regarding Waquoit Bay; Scituate, Marshfield, Duxbury, Plymouth, and Kingston) but an important and timely topic is also part of this concept. Depending on the issue, multiple boards/commissions from the multiple towns might all meet together.
- **Local Meeting Presence / Local Issue(s)** – Visits from appropriate experts at a regular Conservation Commission's meeting, a special meeting, or a multi-board gathering would provide an opportunity to get assistance with unique local issues.
- **Problem-Solving Sessions** – Some of the topics involve breaking new ground – either by having experts develop and present new solutions to problem situations or by pursuing such solutions in the course of a session. To succeed at this type of requires different expectations and preparation on the part of resource people. Multi-board issues such as the differing setback and buffer zone priorities of a Zoning Board of Appeals and a Conservation Commission would be one example.

Mentoring

The lack of systematic preparation for new Conservation Commission members could be addressed by establishing mentoring relationships between an experienced commissioner and one or more new commissioners. Such mentoring relationships could be within town or across town lines. Guidance could be provided to mentors by the Massachusetts Coastal Training Program and/or other entities and experts. A contact person for questions that a mentor is unable to answer could be especially useful; questions received by phone or email would be forwarded to an appropriate person for a response.

Informational materials

There is definite interest in informational materials, in print and/or via the world wide web.

Such materials can be thought of in these categories:

- **Support materials for training events**, which can serve as advance reading, in-session support, for later reference, or some combination.
- **Alternatives to training events**, for those who are unable to attend training (or who prefer to work at their own pace and schedule). Such materials could correspond to an entire training workshop or module, or could address a more specific area of knowledge, skill, or procedure.

- **Stand-alone informational piece.**

Informational materials that serve as companion pieces to training events are almost always desirable – either as advance reading, in-session support, or for later reference. Also, some of the interview respondents made it clear that they and/or others on their commission were often too busy to attend training sessions, so informational materials serve as an alternative delivery mechanism for important content which would not otherwise reach part of its intended audience.

There are topics among the outline in this report of “Issues That May Benefit from Training or Informational Materials” that might be addressed entirely by informational materials (“Stand-alone informational piece”). The best candidates for a “materials-only” approach are those that involve factual information with little in the way of judgment calls or procedural complexity regarding the application of that information, or where clarification can be provided in the form of technical assistance.

However, a top priority for stand-alone information materials could be a self-study alternative to the ConComm 101/Coastal course proposed above. For new Conservation Commission members who could not spare the time to attend a training event – and who might be overwhelmed by the array of documents that they have received – this could provide a manageable and well-organized introduction to the work they are beginning.

Technical assistance

The third delivery method for capacity building explored in this study, in addition to training sessions and informational materials, is technical assistance – especially when it is delivered with attention to capacity building rather than simply resolving an immediate problem.

Part of the appeal of face-to-face training activities is the presence of someone who can serve as a resource, with whom to interact about questions or the significance of a particular content area. However, a number of participants indicated that finding time to travel to and attend training events is difficult, especially since it would come on top of the workload involved in being a volunteer conservation commission member. Those that prefer informational materials over training may nonetheless wish for the opportunity to interact with appropriate experts.

There are ways that this could be accomplished, such as email access, electronic mailing list, wiki’s, telephone calls, telephone conference calls, and other electronic means. It should be a high priority to develop ways to provide technical assistance that would be minimally intrusive on the schedule of the technical resource person but would meet the commissions’ need for backup information and perspectives.

Conclusions

The interviews yielded numerous possible topics for training and for informational materials. Incorporating these ideas into the process of planning future educational programs will require several things:

- estimating the extent of interest in any particular topic;
- identifying expert resource people and materials developers with the appropriate

- expertise to develop high-quality training events and or informational materials;
- selecting the topics which will have the maximum benefit;
- investing sufficient time and other resources to succeed;
- monitoring enrollment levels and outcomes;
- conducting follow-on needs assessments so as to assure that what is being offered is sufficient to make a difference – and also so as to identify emerging topics.

APPENDIX: INTERVIEW QUESTIONS

Hello, is this _____?

Good. This is Duane Dale, and I'm calling on behalf of the Massachusetts Coastal Training Program, which is working in partnership with the Massachusetts Association of Conservation Commissions. Am I right that you're a Conservation Administrator/Member for the town of _____?

The reason for my call is that the Coastal Training Program plans to develop new training opportunities and informational materials for Conservation Commissioners and other local officials, and so I'm talking with a cross-section of town conservation officials in order to learn what would be most helpful. The questions I have will probably take about 20 to 30 minutes. We could do it now or schedule a time when I would call back. Which would be better for you?

And are you familiar with the Massachusetts Coastal Training Program, or would you like some background on CTP?

[The Massachusetts Coastal Training Program is a joint effort of the National Estuarine Research Reserve at Waquoit Bay, the Sea Grant program based at the Woods Hole Oceanographic Institution, and Massachusetts Office of Coastal Zone Management. The Massachusetts Association of Conservation Commissions (MACC) is a co-sponsor of this study.]

Do you have any [other] questions before we start?

BACKGROUND INFORMATION

1a. So you're a...

- ☐ conservation commission member
- ☐ conservation commission chairperson
- ☐ conservation administrator/assistant (other title: _____)

1b. ... for the city or town of _____

2. Were you ☐ elected, ☐ appointed, or ☐ hired into (that) role?

3. For that role, do you

- ☐ ...volunteer your time,
- ☐ I receive a small stipend.
- ☐ get paid part-time, or
- ☐ get paid on a full-time basis.

4. Do you have any other local government role? _____

5. Do you have formal education, training, or a degree that's related to this role?

6. For how many years have you been involved in local government in coastal towns (including any other coastal towns as well as the current one)?

ISSUES

7. In your opinion, what are the top **coastal issues** facing (your city/town).
[Define “issue” as a question or area of concern that requires decision making by local government bodies.]

Does your commission face any issues that are...

- 7a. recurring in nature? _____
- 7b. “hot button” topics in your town? _____
- 7c. linked to recent legislation (or pending legislation)? _____
- 7d. related to town meeting decisions? _____
- 7e. motivated or shaped by the local political climate? _____
- 7f. “gray areas” due to lack of local bylaws and/or governing structure? _____
- 7g. problematic due to insufficient inter-board communication (for example, ConComm to Board of Health or ConComm to DEP, etc.)? _____
- 7h. related to insufficient understanding by commission members of the commission’s regulatory authority? _____
- 7i. highly technical in nature and therefore hard to assess? _____
- 7j. Are there issues that seem to be coming over the horizon – that look as if they may be important issues for your Commission to deal with during the next few years?

8. Of the various issues that you’ve named so far, which one(s) have taken the most time over the last year?

9-1-A. Sometimes, the issues that local commissions and boards face require knowledge of subjects that members might not be familiar with. In some cases, access to the right training and/or information could improve the planning process and lead to better decision-making. Of all the issues you named so far, please name the one that you think would benefit most from training or relevant informational materials.

9-1-B. And what, specifically, would you want to get from training or informational materials regarding that issue?

9-2-A. Now, please name a second issue from the ones you’ve mentioned so far that would also benefit from training or relevant informational materials.

9-2-B. And what, specifically, would you want to get from the training or informational materials regarding that issue?

9-3-A. Is there a third issue from among the ones you’ve mentioned that would benefit from some form of training or informational materials?

9-3-B. And what, specifically, would you want to get from the training or informational materials regarding that issue??

For the various types of training or information needs you've named in the last couple questions, which types of assistance would be helpful?

- ☐ Training workshops
- ☐ Information summaries focused on our issue, in the form of fact sheets, web pages, or other types of documents.
- ☐ Technical assistance (such as expert help for the commission) – delivered in such a way as to not only address the current situation but also to leave the commission with increased capacity to deal with related situations in the future.

COLLABORATORS

10. With what other boards does [your conservation commission] work on coastal issues or decisions?

Which state agencies?

11. In your opinion, would training that involves two or more local boards or commissions that work on a specific coastal issue be valuable?

- ☐ Yes ☐ No

For example?

12. In your opinion, would training that involves one or more local boards or commissions –along with regional and/or state agencies involved in a specific coastal issue be valuable?

- ☐ Yes ☐ No

For example?

EXPERIENCE WITH TRAINING

13-A. Have you ever been to a training session designed to help your commission perform its duties? ☐ Yes ☐ No

13-B. If yes, please list the training topic(s) that you have participated in most recently:

13-C. Was there an organization that provided or sponsored the training? If so, list:

13-D. And was that training...

Part of a regularly scheduled local meeting? ☐ Yes ☐ No

13-E. specially-scheduled local session ☐ Yes ☐ No

13-F. Part of a larger training event or conference? ☐ Yes ☐ No

13-G. Was there a fee for that training?: ☐ Yes (specify cost: \$)
☐ No ☐ Not sure

13-H. Was the fee covered by: ☐ Town ☐ Commission Member ("self") ☐ Other

13-I. How would you rate that training?:

O Highly Satisfied O Satisfied O Unsatisfied O Highly Unsatisfied

13-J. What was the major benefit of that particular training for you?")

13-L. Do you recall any drawbacks or problems with that training?

14. When new members join your conservation commission, what sorts of things are done to bring them “up to speed” as efficiently as possible?

- ☐ Orientation session or briefing on how the commission functions
- ☐ Training on specific topics/issues that you may be faced with and/or skills that you may require
- ☐ One-on-one or small group technical advice/assistance from the professional scientific/engineering/legal/technical community
- ☐ A handbook or written background material
- ☐ Other: _____

15A. For (the ones you just said yes to), was this training or information helpful?

- ☐ Yes ☐ No

15B. Comments? (benefits? Drawbacks?)

16. Now that you have some experience as a commission member [staff person], what kinds of information do you think might be helpful for new board and/or staff members to help them get up to speed?

Possible prompting questions:

Type of info?

Any process skills? (e.g. dealing with conflict, asking good questions...)

Format?

Other suggestions regarding new-member training or information?

17. SUCCESS STORIES: Do you have a success story that you'd like to share; something that your board/town addressed that could serve as a lesson learned for other communities?

18. Do you have anything to add based on your personal experience as a commission member (staff person) that the Coastal Training Program might be able to help address?

19. Email address (to send link to project's report, if/when posted to internet).

20. If this is the Commission's administrator and we don't yet have member names to interview: request names and contact info for 2-3 ConCom members to interview.

Thanks!