

# **Professional Development Needs Assessment for the Connecticut National Estuarine Research Reserve**



**Conducted for the  
Connecticut National Estuarine Research Reserve**

**By Responsive Management**

**2025**



# **Professional Development Needs Assessment for the Connecticut National Estuarine Research Reserve**

**2025**

## **Responsive Management**

Mark Damian Duda, Executive Director  
Martin Jones, Senior Research Associate  
Tom Beppler, Senior Research Associate  
Amanda Center, Research Associate  
Andrea Criscione, Senior Research Associate  
Patrick Doherty, Research Associate  
Gregory L. Hughes, P.E., Research Associate  
Jeremiah Morris, Survey Center Manager  
Alison Lanier, Business Manager

PO Box 1828  
Harrisonburg, VA 22801-9500  
540/432-1888  
Email: [mark@responsivemanagement.com](mailto:mark@responsivemanagement.com)  
[www.responsivemanagement.com](http://www.responsivemanagement.com)

## **Connecticut National Estuarine Research Reserve**

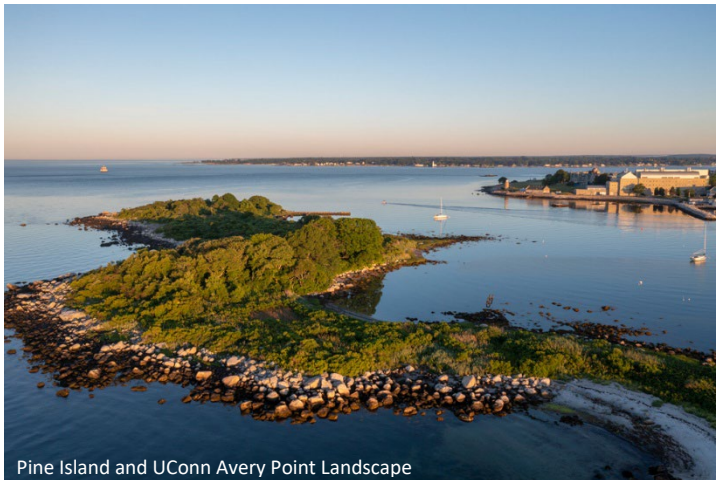
Larissa Graham, Education Coordinator  
Katie Lund, Coastal Training Program Coordinator

University of Connecticut – Avery Point  
Lowell P. Weicker Jr. Building  
1080 Shennecossett Road, Suite 207  
Groton, CT 06340

## EXECUTIVE SUMMARY

The [National Estuarine Research Reserve System](#) is a network of 30 coastal sites designated to protect and study estuarine systems in collaboration with and service to surrounding communities. Established through the Coastal Zone Management Act, this partnership program between National Oceanic and Atmospheric Administration (NOAA) and the coastal states supports ecosystem health and the interconnectedness of people and the environment.

Established in 2022, the [Connecticut National Estuarine Research Reserve](#) (hereinafter referred to as CTNERR) is a part of this NOAA-funded national network of coastal areas designated for stewardship, research, and education of estuarine systems. The CTNERR works in partnership with state and federal organizations to provide communities with science-based information and skills needed to address coastal management issues.



Pine Island and UConn Avery Point Landscape

In alignment with their goals of providing science-based information and skills to address coastal management issues, the CTNERR and Responsive Management conducted this research to develop an understanding of the professional development needs and interests that exist on the topics of climate resilience and storm preparedness, habitat, and water quality. In addition, this research sought to understand current use of and need for training programs,

preferred delivery methods and modes of training and education, concerns about future coastal management issues, and information about existing education programming and resources, among other topics that will be discussed in this report. Ultimately the findings from this research will be used to develop education and training opportunities that are most valuable to and meet the needs of those involved in coastal management and stewardship in Connecticut.

To establish the methodology, potential participant list, and survey instrument content, Responsive Management collaborated on all components of the research with the CTNERR staff. In addition, prior to survey development, a research review was conducted that examined the findings, methodologies, and content of various needs assessments conducted for the National Estuarine Research Reserve (NERR) System and other social science research that addressed coastal management issues, public attitudes and needs, and attitudes and opinions about coastal resources within the Connecticut and Long Island Sound region.

## STUDY PARAMETERS AND PARTICIPANT GROUPS

Based on discussions with the CTNERR staff and the previously described research review, the project team established a list of potential participant groups and regions in which to focus survey efforts. Potential participant groups included those whom the CTNERR staff deemed important for inclusion in the research and groups that had been included in other needs assessments conducted for the NERR System. The region of focus included all towns, cities, and Councils of Governments (COGs) in proximity to the Reserve (Southeastern Connecticut Council of Governments (SCCOG) and RiverCOG). The potential participants list (Table 1) and maps of the focus areas (Figures 1 and 2) are shown on the following pages.

Elected officials (local and state)	Former training/seminar/event attendees	Chapters of environmental organizations
State legislators	Engineers, architects, designers, and landscapers	Watershed associations
Appointed officials (local)	Environmental justice organizations and nonprofits	Building/development association
Appointed officials (state)	City/town engineers	Fisheries and wildlife personnel
City/town council members	Nonprofit/NGO staff and/or members	Volunteer organizations
County and Councils of Government staff	Code enforcement officers	Environmental consultants
Indigenous/tribal groups/communities	Coastal business professionals and associations	Wetland scientists
Municipal staff (such as planning, public work, and stormwater departments)	Environmental health officers	Environmental educators
County commissioners	Education professionals	Universities
State agency personnel	Transportation officials	Estuarine researchers
Planning commission members	Environmental professionals	Coastal regulators
State and regional professional associations	Conservation commissions	Coastal planners
City/town managers	Land trusts	Marine resource agency personnel
City/town planners	Environmental Protection Agency personnel	

Figure 1: CTNERR Boundary Map

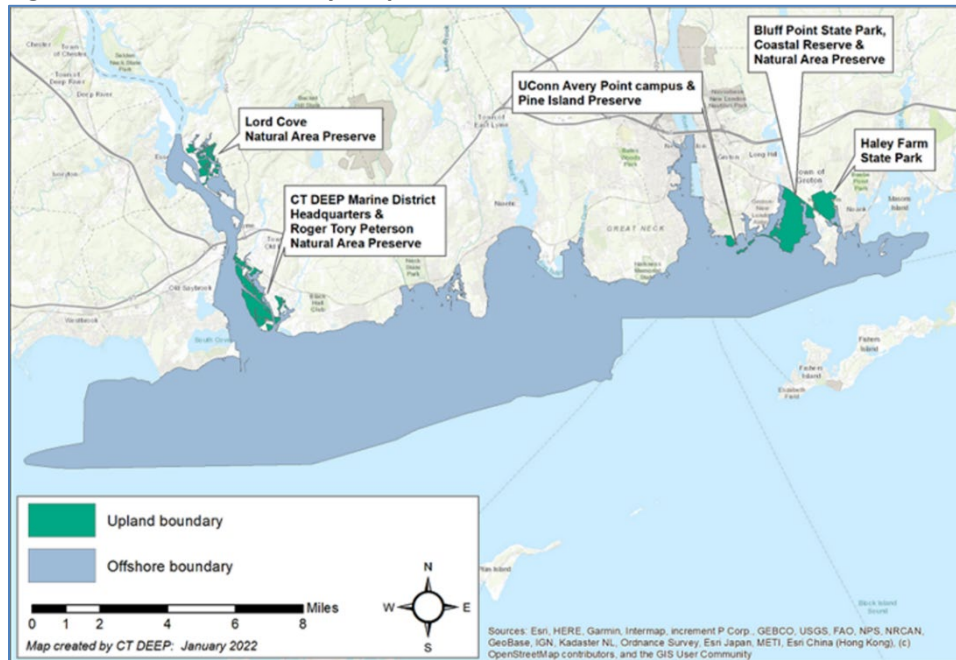
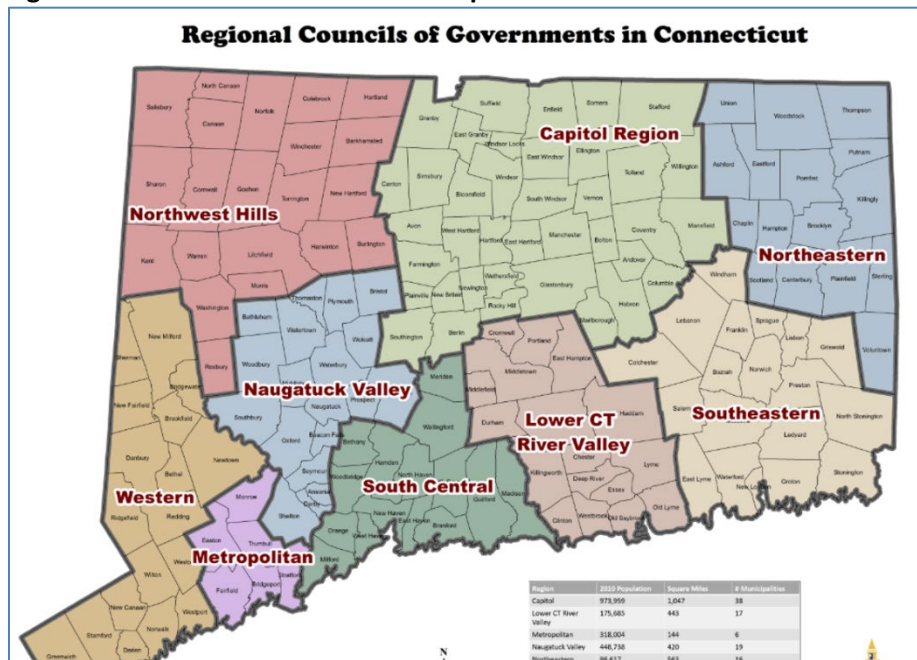


Figure 2: Councils of Governments Map



The following is a brief description of the survey methodology and design, some of the key findings from the survey of 176 respondents involved in coastal management or stewardship activities, and a list of recommendations based on the findings from the study.

## **SURVEY METHODS AND DESIGN AT A GLANCE**

This research entailed an online survey of individuals who are/could be involved in education, training, and stewardship activities in the CTNERR's marsh, upland, and open waters of Long Island Sound, Fishers Island Sound, and the lower Connecticut and Thames Rivers (referred to as respondents for the remainder of this report).

The survey was conducted using an online approach, in which potential participants were contacted via email with information about the study and a link they could use to access the survey (additional details about the survey methodology are included on page 7 of this report).

The survey questionnaire was developed by Responsive Management in collaboration with the CTNERR. The questionnaire was designed to first capture respondent background information, such as respondents' position within organizations (e.g., elected officials, municipal staff, nonprofit staff, academia), education and professional experience, required continuing education credits, localities served, work with distressed municipalities, and organizational and personal focus on coastal management topics. With regard to their coastal management focus, respondents could choose from four major coastal management categories: water quality, habitat management and restoration, climate resilience and/or storm preparedness, and/or educational programming.

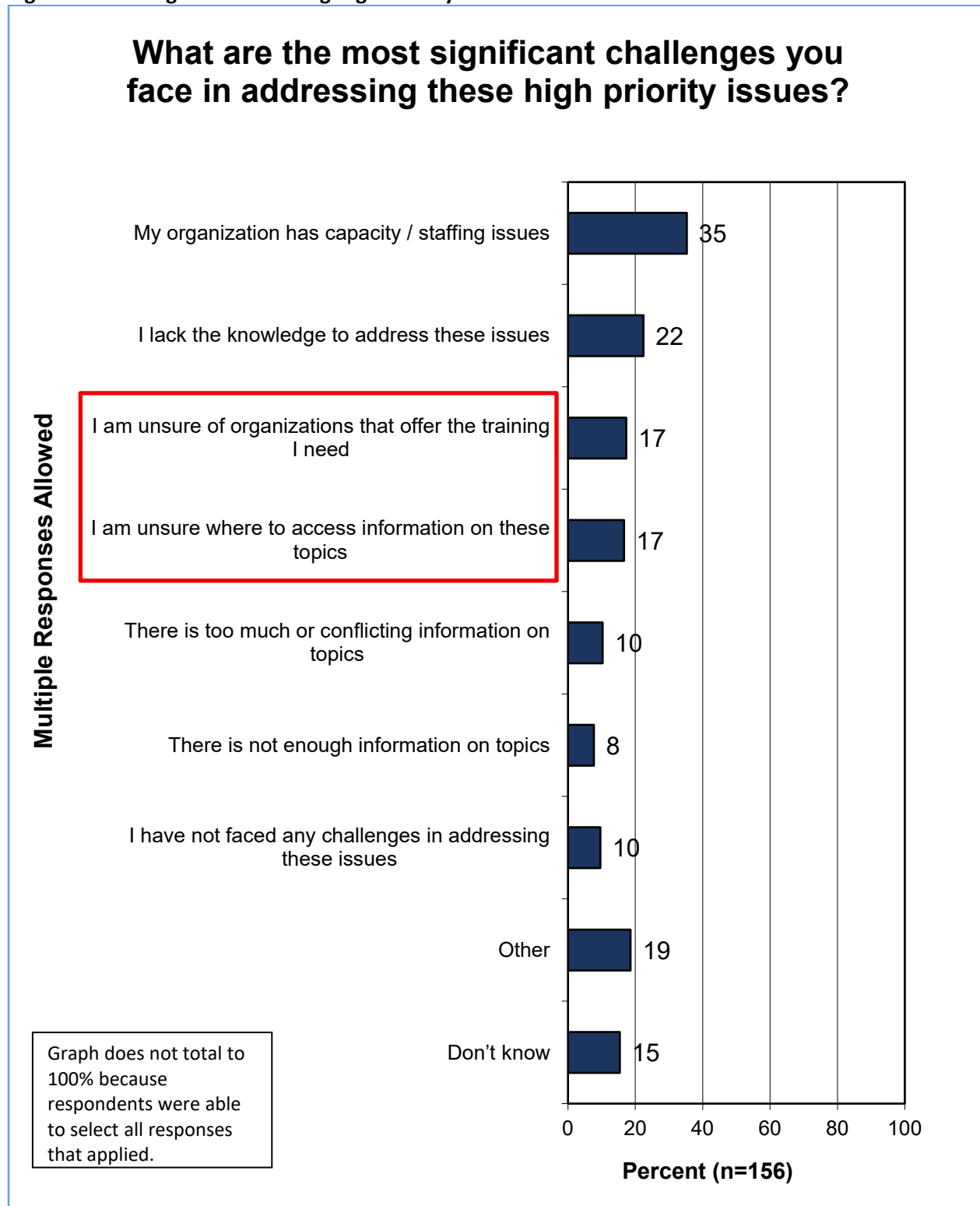
Later in the survey, respondents were asked to describe their audience, experience with the CTNERR training program, interest in and need for training topics, and preferences for program training delivery and format. Survey questions about interest in and needs related to training topics were organized based on three of the primary categories of focus established earlier in the survey: water quality, climate resilience and/or storm preparedness, and habitat management (those who selected educational programming as their primary focus were sent down a separate path that is described below). The topics within each of the three categories are shown in Table 2.

Several questions in the survey were asked only of respondents for which the question was applicable. For example, several survey questions were intended only for those who indicated that their role was associated with land trusts and open space committees and municipal, nonprofit, consulting (engineer, architect, designers), and volunteer organizations. In addition, respondents who indicated their focus included educational programming (developing content programs that promote environmental literacy and/or providing hands-on opportunities for environmental stewardship for educators, students, volunteers, or community members) were asked a series of questions that served as a follow-up to a needs assessment that was conducted in 2023 to determine what resources were available to educators. Throughout the report, questions that were only asked of a subsection of respondents are identified.

<b>Table 2: Training Topics by Category</b>		
<b>WATER QUALITY</b>	<b>HABITAT MANAGEMENT AND RESTORATION</b>	<b>CLIMATE RESILIENCE AND/OR STORM PREPAREDNESS</b>
Stormwater management	Eelgrass management and restoration	Coastal flooding
<ul style="list-style-type: none"> <li>• Green infrastructure</li> </ul>	Assessing and managing tidal restrictions/road stream crossings	Coastal hazards management and planning for sea level rise
<ul style="list-style-type: none"> <li>• Structural technology</li> </ul>	Tidal wetland/marsh migration	Nature-based solutions to address flooding and erosion
<ul style="list-style-type: none"> <li>• Other stormwater management topic</li> </ul>	Protecting coastal resources such as dunes, tidal wetlands, bluffs/escarpments	<ul style="list-style-type: none"> <li>• Green infrastructure / stormwater management</li> </ul>
Land use and nutrient loading to coastal waters	Living shorelines for habitat restoration and protection	<ul style="list-style-type: none"> <li>• Living shorelines techniques</li> </ul>
Benefits of natural habitats on water quality	Invasives assessment and management	<ul style="list-style-type: none"> <li>○ Site assessment</li> </ul>
Ocean acidification	<ul style="list-style-type: none"> <li>○ Terrestrial invasives</li> </ul>	<ul style="list-style-type: none"> <li>○ Design criteria</li> </ul>
Pathogen monitoring	<ul style="list-style-type: none"> <li>• Freshwater invasives</li> </ul>	<ul style="list-style-type: none"> <li>• Permitting</li> </ul>
	<ul style="list-style-type: none"> <li>• Marine invasives</li> </ul>	<ul style="list-style-type: none"> <li>• Monitoring protocols</li> </ul>
	<ul style="list-style-type: none"> <li>• Other invasives assessment and management topic</li> </ul>	<ul style="list-style-type: none"> <li>• Use of reef balls or other artificial reef components</li> </ul>
	Blue carbon	<ul style="list-style-type: none"> <li>• Other living shoreline technique topic</li> </ul>
	Role of riparian buffers	<ul style="list-style-type: none"> <li>• Other nature-based solution to address flooding and erosion topic</li> </ul>
	Watershed assessment	Municipal climate resilience
	Habitat mapping	<ul style="list-style-type: none"> <li>• Zoning for climate resilience (updates and review of regulations, codes, and ordinances)</li> </ul>
	Soil survey mapping applications	<ul style="list-style-type: none"> <li>• Vulnerability assessment</li> </ul>
	Sea floor mapping applications	<ul style="list-style-type: none"> <li>• Other municipal climate resilience topic</li> </ul>
	Stream barrier removal for wildlife migration	



Figure 4: Challenges in Addressing High Priority Issues



### Organization and Respondent Focus

**Organizations are often focused on multiple coastal topics and issues.**

Survey respondents were asked to describe their organization from a list of possible responses. Figure 5 shows the breakdown of survey participants. While respondents from a variety of organizations took the survey, Figure 6 shows that a majority of organizations are providing services related to *all* the general coastal topics and issues listed in the survey.

Figure 5: Respondent Organizations

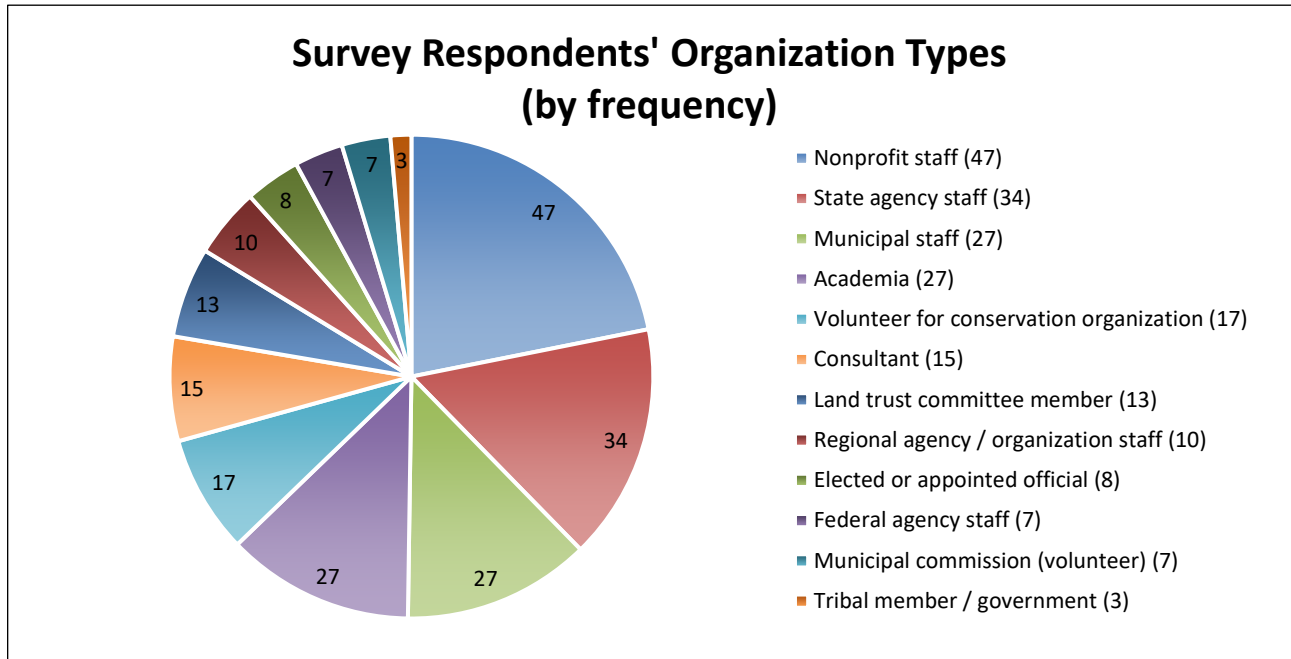
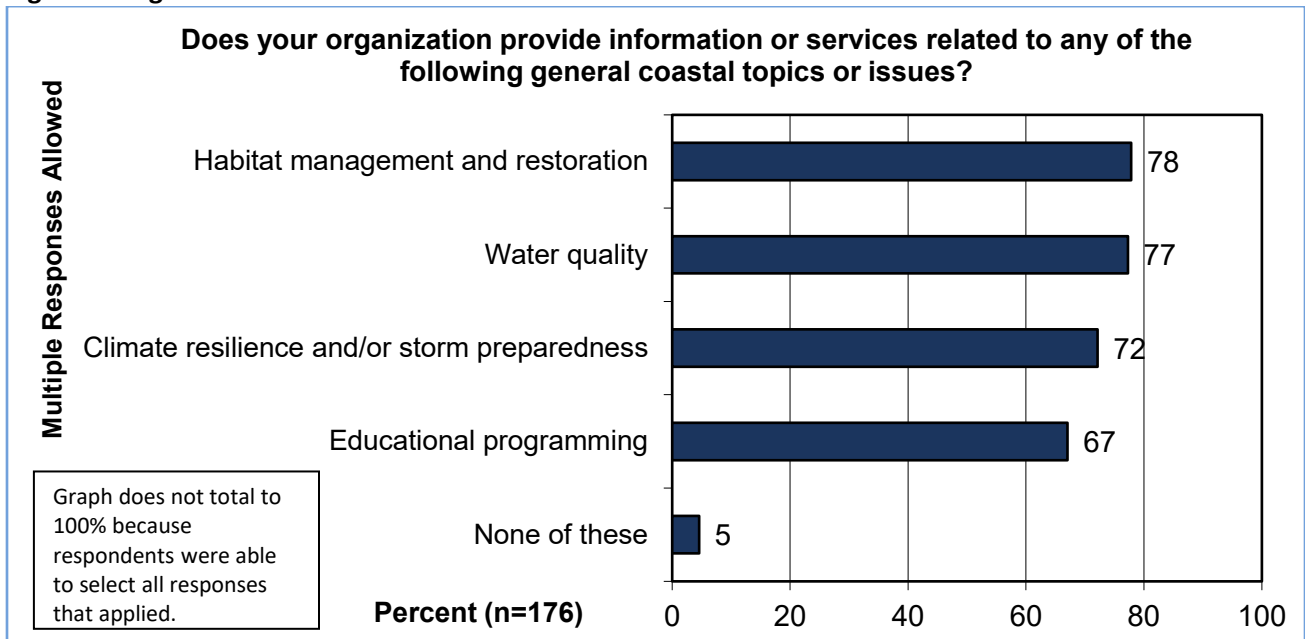


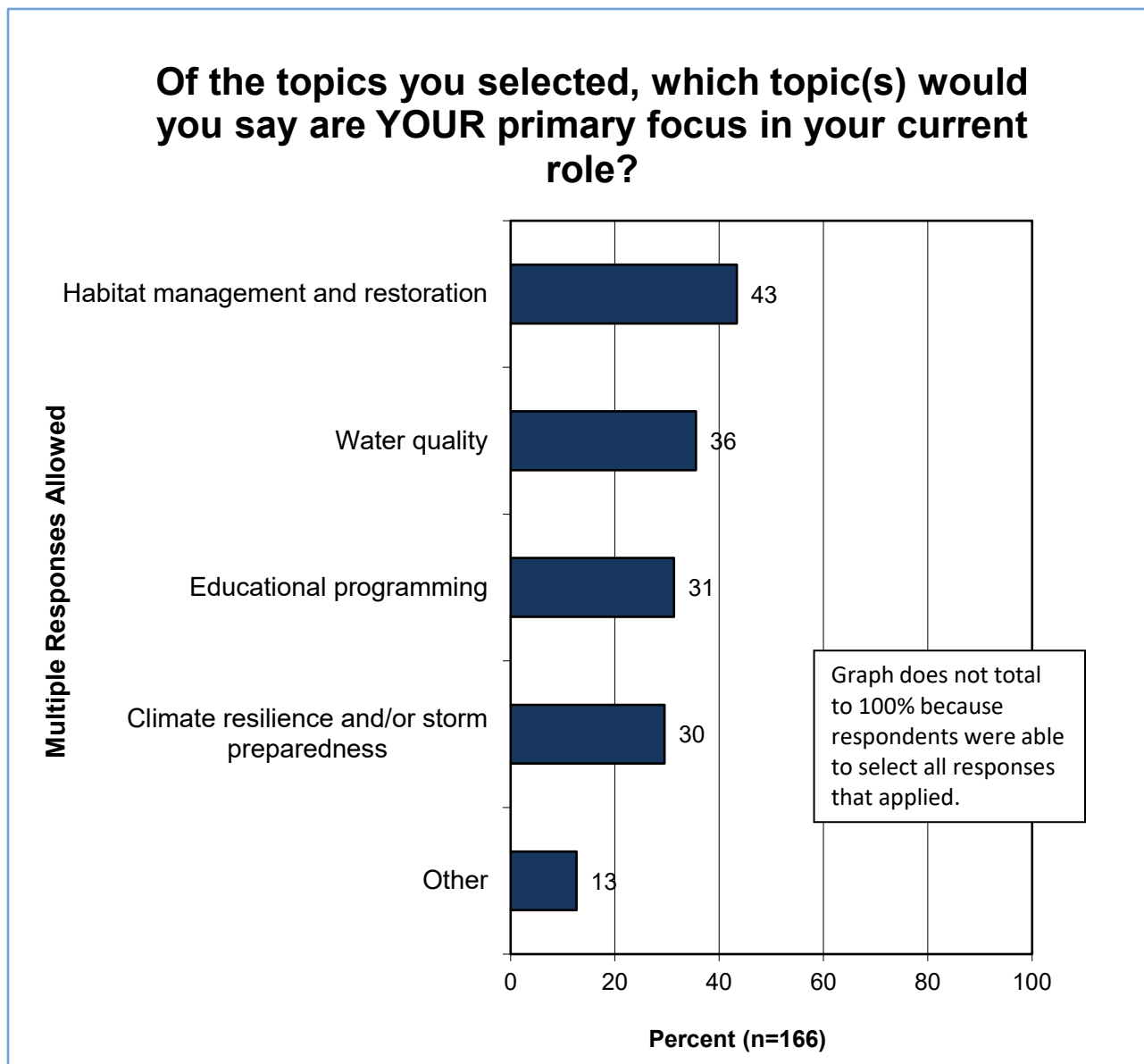
Figure 6: Organization Focus



Organizational focus is often split among multiple topics, with large percentages of respondents selecting all 4 categories (78% selected habitat management and restoration, 77% selected water quality, 72% selected climate resilience and/or storm preparedness, and 67% selected educational programming). Individual focus, however, is most often habitat management and restoration (43% said this).

When asked about their individual primary focus, respondents selected habitat management and restoration most frequently (43%), with water quality (36%), educational programming (31%), and climate resilience and/or storm preparedness (30%) following (Figure 7).

Figure 7: Individual Focus



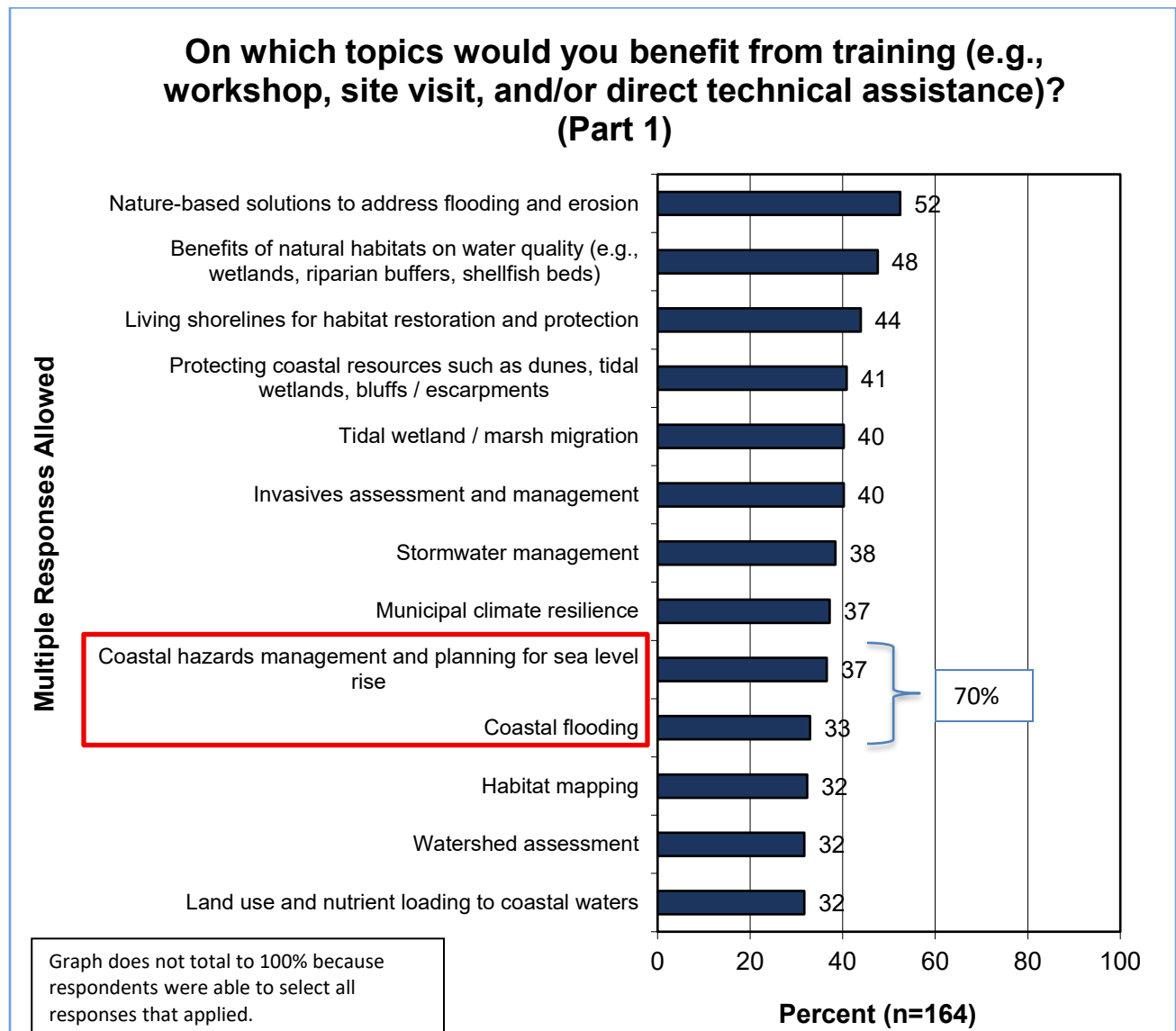
## General Training Needs Findings

**When asked about topics of interest in general, the most frequently selected need for training was nature-based solutions to address flooding and erosion.**

Figures 8 and 9 show the percentage of respondents who selected each coastal management topic. Topics on which 40% or more of respondents said they could benefit from training are:

- nature-based solutions to address flooding and erosion
- benefits of natural habitats on water quality (e.g., wetlands, riparian buffers, shellfish beds)
- living shorelines for habitat restoration and protection
- protecting coastal resources such as dunes, tidal wetlands, and bluffs/escarpments
- tidal wetland/marsh migration
- invasive assessment and management

**Figure 8: General Training Needs (Part 1)**

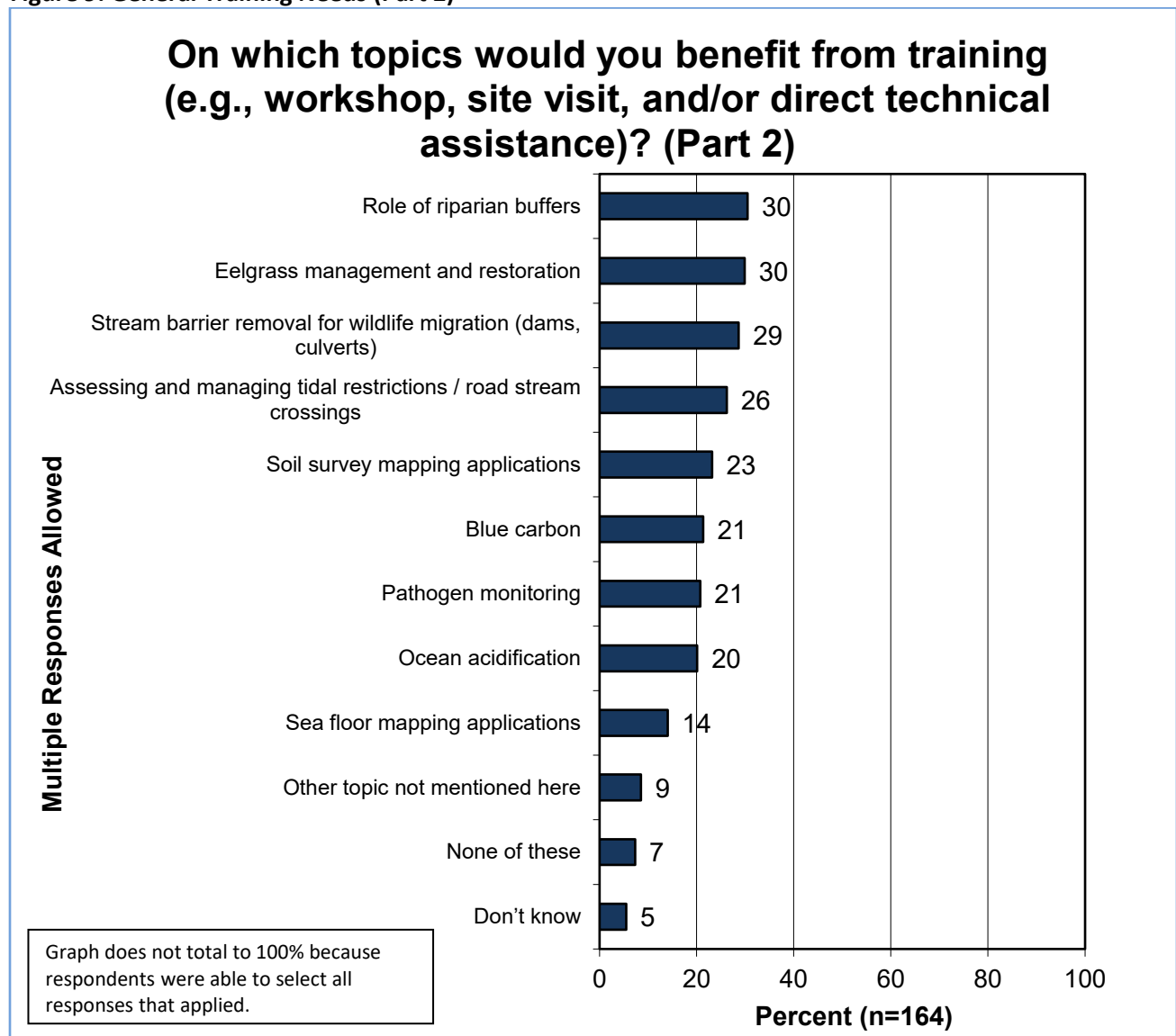


It should also be noted that although they are separated for the purpose of this survey, coastal hazards management and planning for sea level rise *AND* coastal flooding are all closely related topics. If these topics are combined, 70% of respondents selected one or both of them, making the topic the top choice for respondents (shown in Figure 8).

Topics selected by the smallest percentage of respondents included sea floor mapping applications, ocean acidification, pathogen monitoring, blue carbon, and soil survey mapping applications (Figure 9).

Respondents were also given an option to list a topic not included on the list. The verbatim responses to this question can be found later in the body of the report on page 24.

Figure 9: General Training Needs (Part 2)



Respondents who selected nature-based solutions went on to indicate equal interest in both green infrastructure/stormwater management and living shorelines techniques. When asked about specific living shoreline subtopics, more than 70% of respondents indicated interest in training related to site assessments, design criteria, and monitoring protocols.

Respondents who selected nature-based solutions to address flooding and erosion topics were asked a follow-up question to understand interest in specific components of nature-based solutions. As can be seen in Figure 10, a large percentage (78%) of respondents who selected this category indicated that both green infrastructure/stormwater management and living shoreline techniques are equally beneficial.

Respondents who selected living shorelines techniques were further asked about specific subtopics related to living shorelines; more than 70% of respondents indicated they could specifically benefit from training on site assessments, design criteria, and monitoring protocols (Figure 11).

Figure 10: Nature-Based Solutions Training Needs

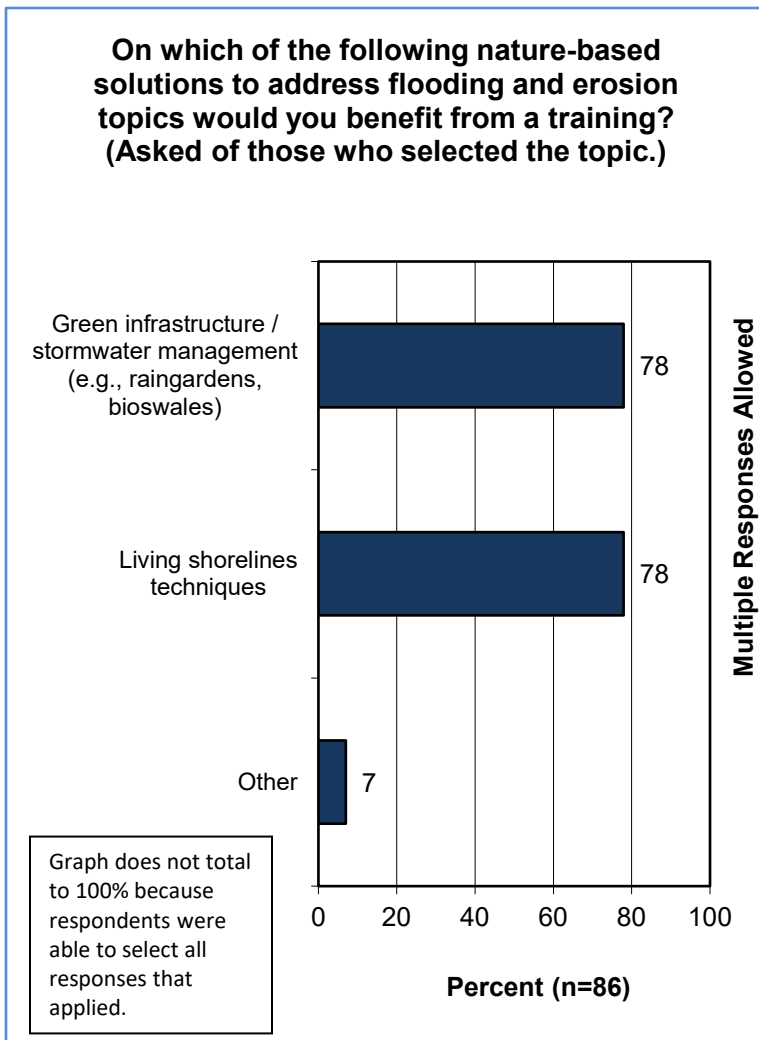
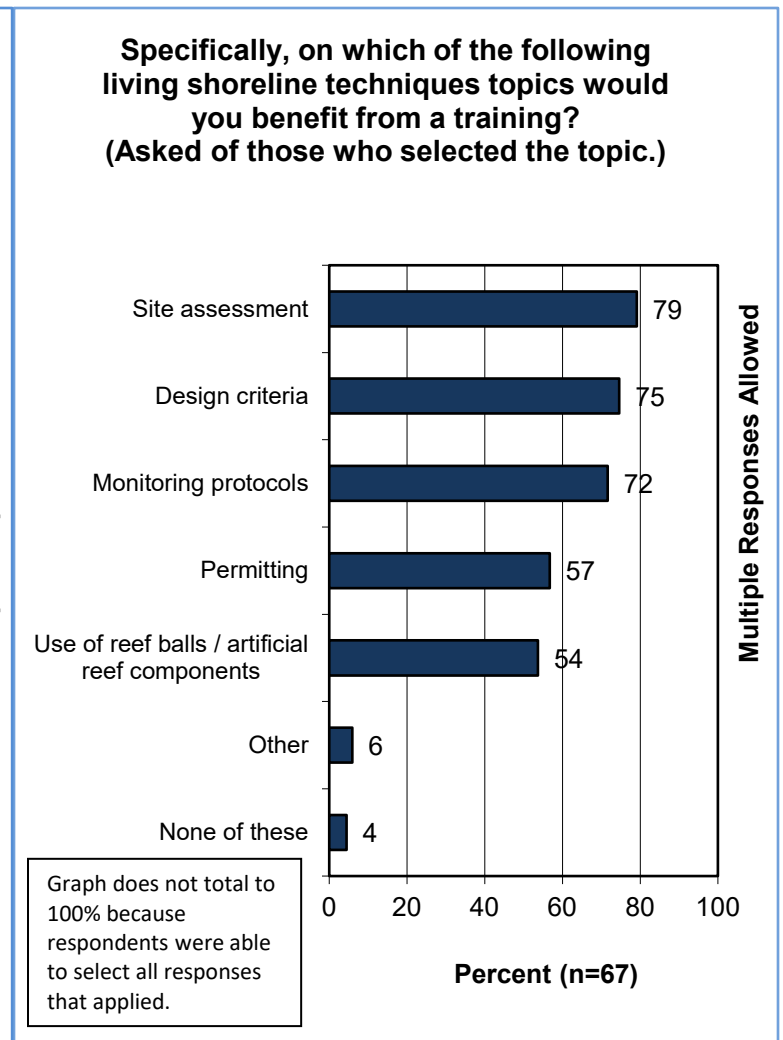


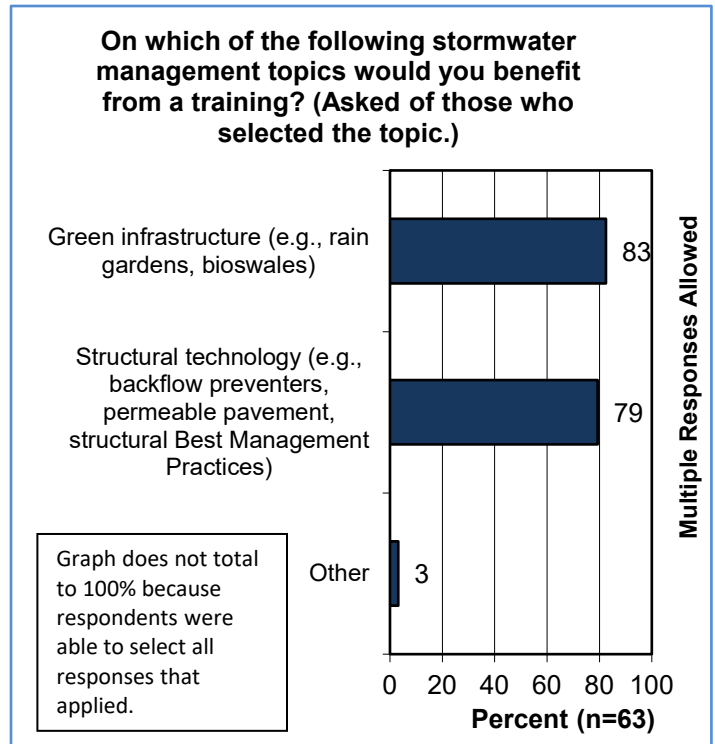
Figure 11: Living Shoreline Training Needs



Among those who selected stormwater management as a training topic of interest, green infrastructure and structural technology are nearly equally beneficial for respondents.

Stormwater management was selected as a beneficial training topic by 38% of respondents (shown in Figure 8). As with many of the topics that included follow-up questions, respondents often indicated that all components of the larger topic could provide beneficial training.

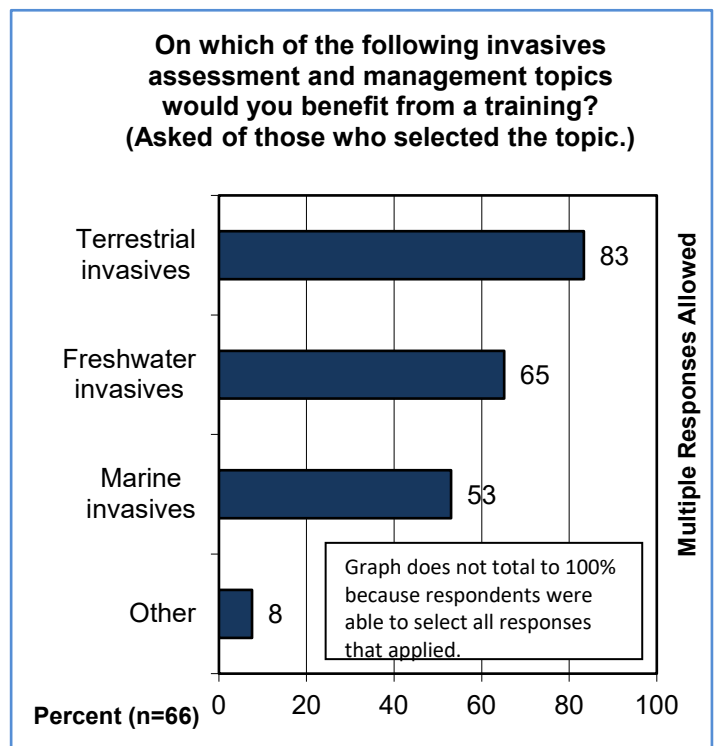
Figure 12: Stormwater Management Training Needs



Invasive assessment and management was selected by 40% of respondents (Figure 8); within the larger topic, respondents specified that terrestrial invasives trainings would be most beneficial.

Terrestrial invasives trainings were selected by the largest percentage of respondents (83%), with freshwater invasives (65%) and marine invasives (53%) following.

Figure 13: Invasives Management Training Needs



### Immediate Training Needs Findings

**When asked about their highest or most immediate need for training, nature-based solutions to address flooding and erosion (specifically green infrastructure/stormwater management) and structural technology as a component of stormwater management were the top two responses.**

Following the questions that asked about general training topics of interest, respondents were asked to select topics that related to their highest or most immediate needs for training. Whereas the general topics showed every possible option for respondents to choose from, when asked about their top priority/immediate need, respondents were only shown the topics they had previously selected, essentially asking each respondent to prioritize their selections.

Figure 14 shows the highest training need by major category. Note that when asked about their individual focus, the smallest percentage of respondents selected climate resilience and/or storm preparedness (shown in Figure 7); however, Figure 14 shows that half of all respondents have training needs related to the topic.

Figure 15 shows immediate training needs grouped by these major categories and second-level categories (in other words, increased specificity within the major category).

**Figure 14: Most Immediate Training Needs 1 (Major Categories)**

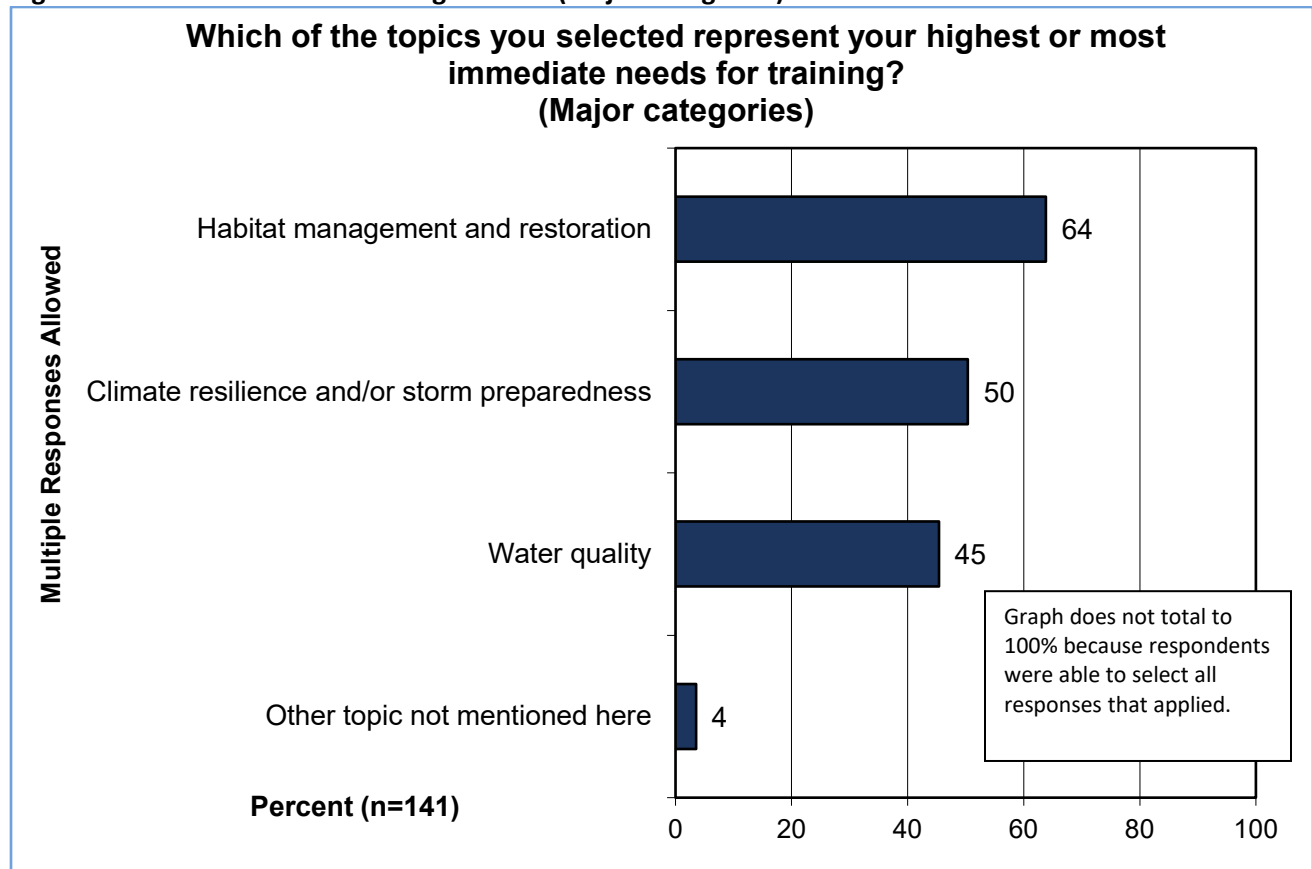
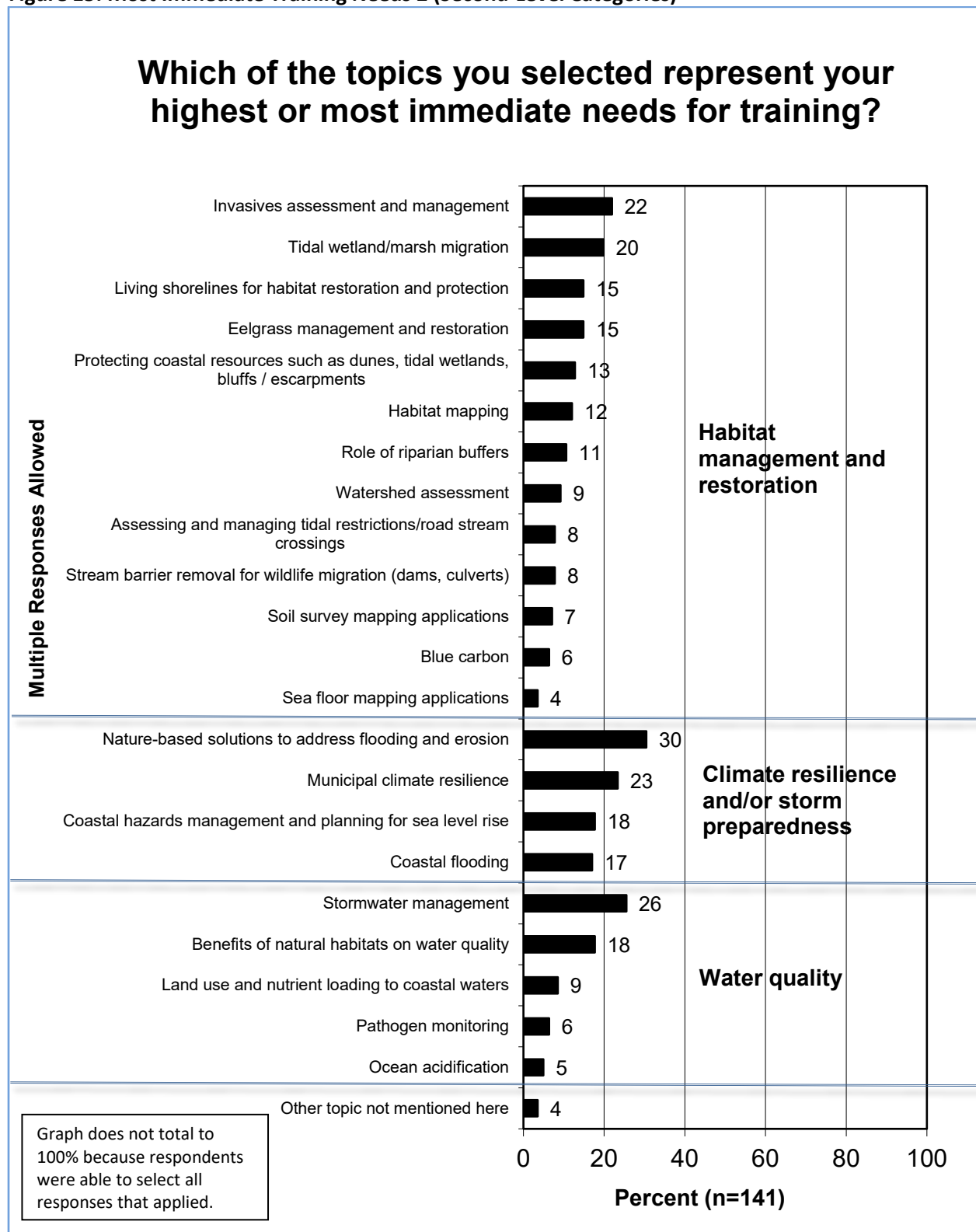


Figure 15: Most Immediate Training Needs 2 (Second-Level Categories)

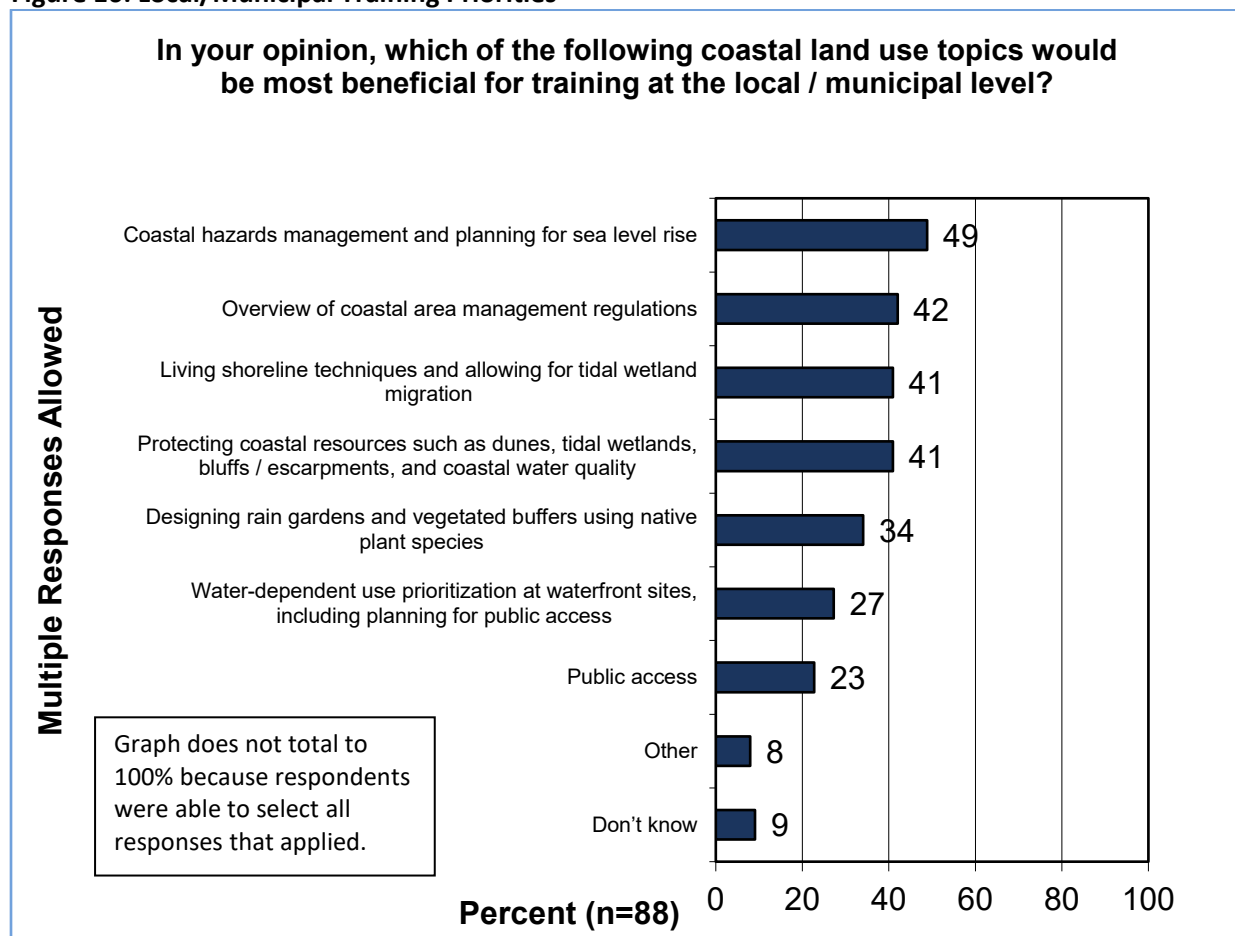


## Local and Municipal Needs

**Respondents from local or municipal organizations/agencies (e.g. land trusts, open space committees, and municipal staff) could benefit most from training related to coastal hazards management and planning for sea level rise.**

This question focused specifically on survey participants who had positions with local or municipal organizations/agencies. When asked what topics would be most beneficial, more than 40% of these respondents selected training on coastal hazards management and planning for sea level rise; overview of coastal area management regulations; living shoreline techniques and allowing for tidal wetland migration; and protecting coastal resources such as dunes, tidal wetlands, bluffs/escarpments, and coastal water quality (Figure 16). Note that when compared to a 2017 study of municipal issues and needs in Connecticut,<sup>1</sup> responses showed a fair amount of overlap, and there has been little change in areas of concern in the 8 years since the municipal study.

**Figure 16: Local/Municipal Training Priorities**

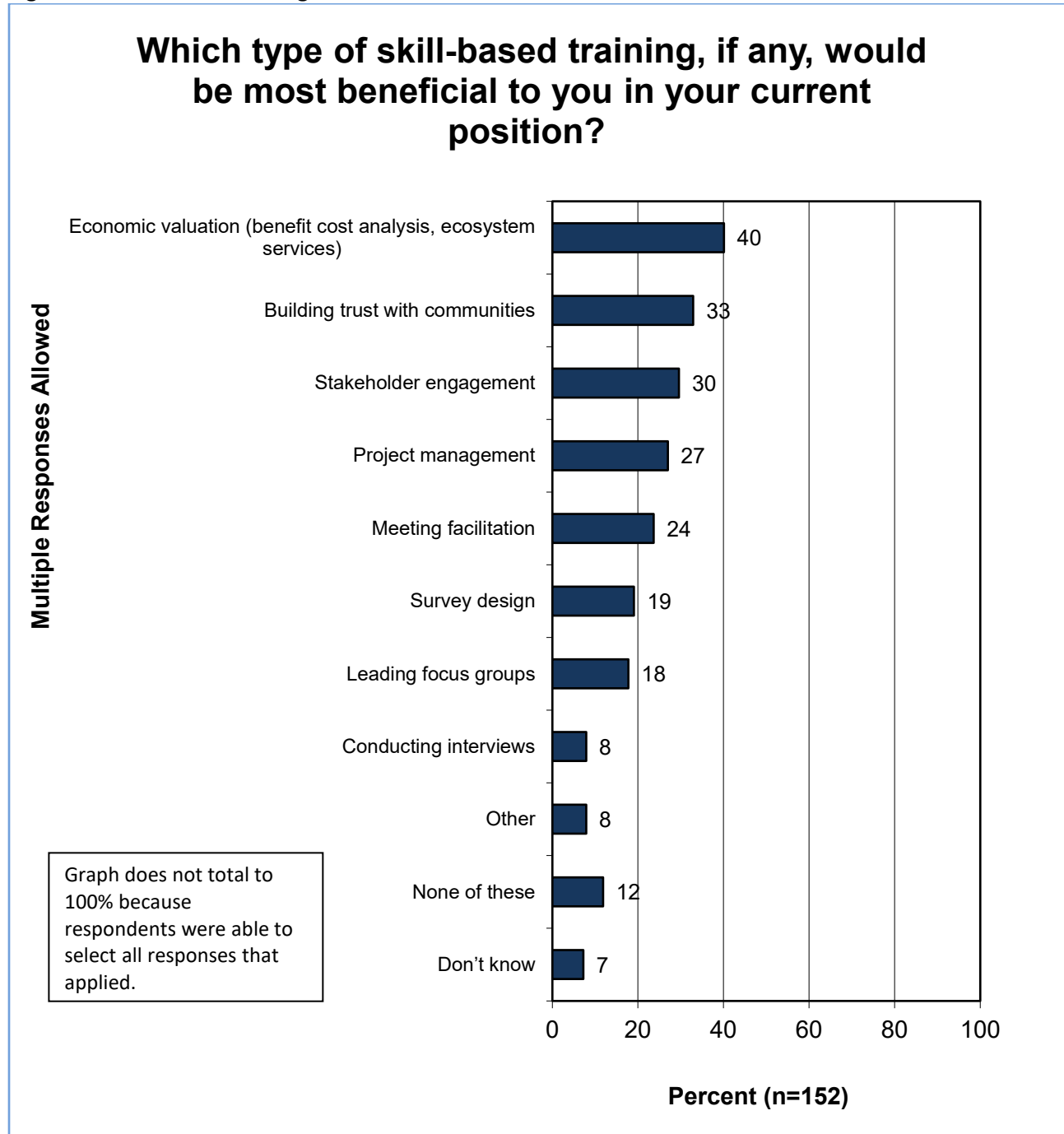


<sup>1</sup> Hyde, B., & Barrett, J. (2017). *Municipal issues & needs for addressing climate adaptation in Connecticut*. Connecticut Institute for Resilience and Climate Adaptation (CIRCA), University of Connecticut.

### Skill-Based Training Needs

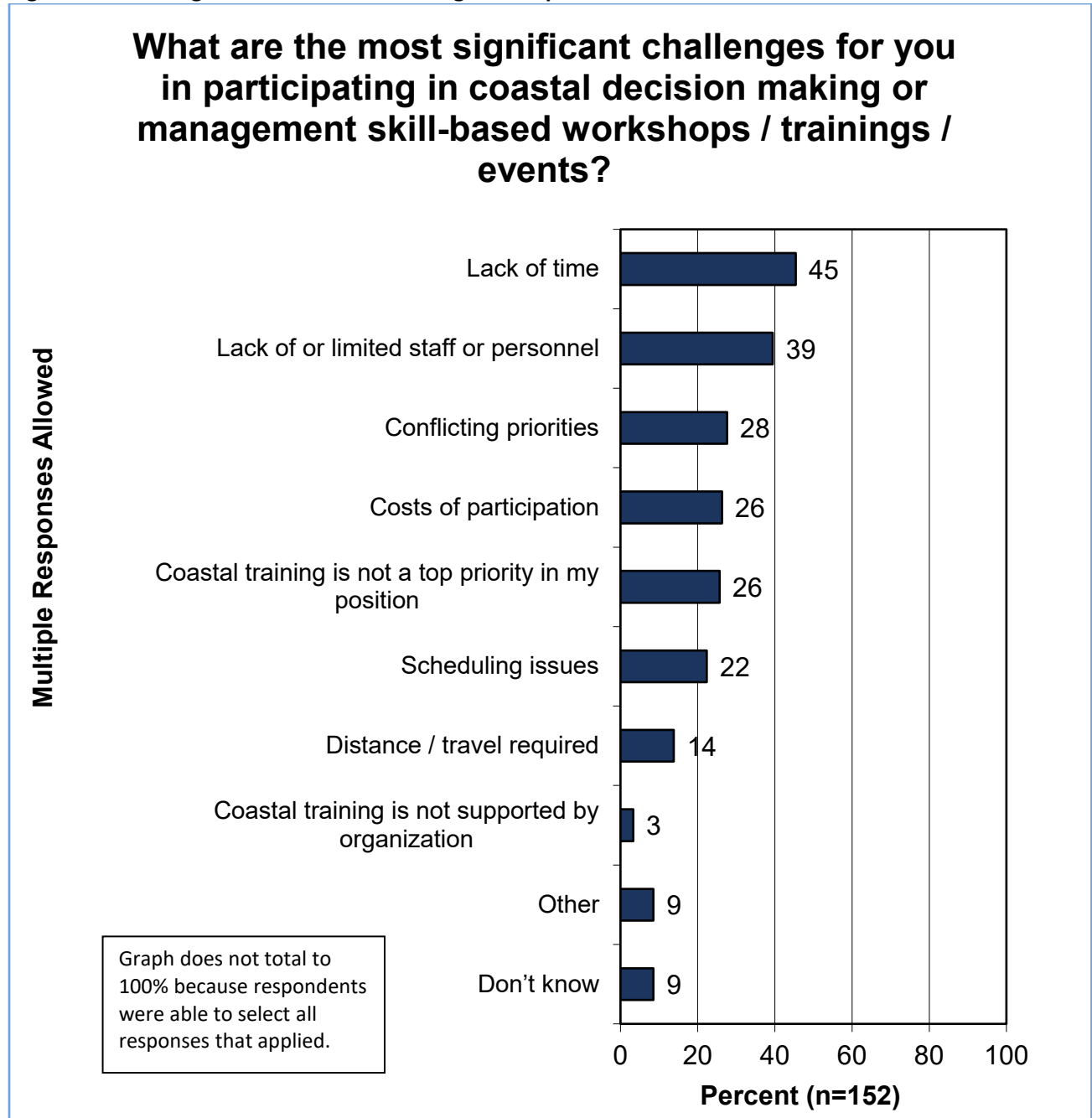
When asked about their needs for skill-based training, economic valuation (benefit cost analysis, ecosystem services) was the top response. Other responses that were selected by more than 30% of respondents related to better engaging audiences and building trust (Figure 17).

Figure 17: Skill-Based Trainings Needs



Respondents were further asked what significant challenges prevented them from participating in skill-based workshops, trainings, or events. As the top responses were lack of time and lack of or limited staff or personnel, trainings on these skill-based topics should be considered for easily distributable materials and/or shorter sessions (Figure 18).

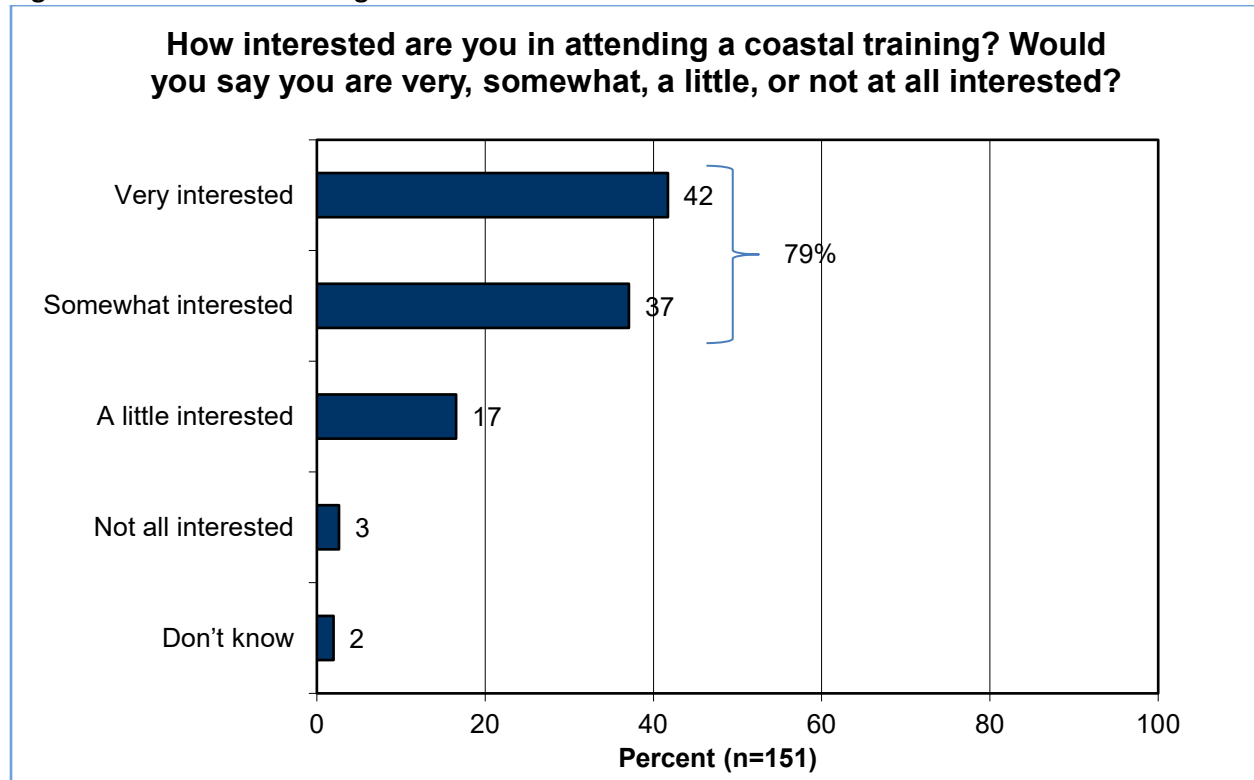
Figure 18: Challenges for Skill-Based Trainings Participation



## Participation in and Preferences for Training

While 56% of respondents have not ever participated in a training, there is a great deal of interest in attending trainings (79% said they are *very* or *somewhat* interested in attending a coastal training).

Figure 19: Interest in Training



For the most part, respondent preferences for the timing, location, and logistics of training showed clear consensus that can be used by the CTNERR to plan and schedule coastal and skill-based trainings.

Table 3 shows the top training preferences, followed by additional information about specific aspects of coastal training.

Topic	Top option	Percent of respondents who selected top option
Travel distance	31 to 60 minutes of travel	51%
Location (in-person, virtual, etc.)	In-person event – field trip	49%
Length	Half day (3-4 hours)	67%
Time of day	Morning	64%
Season	No preference (among seasons, fall was selected most often)	43%
Encouraging incentive	Food and drink	34%

Respondents were also asked to rate the value of several aspects of coastal training, on a scale of 1 to 3, where 1 is *no value at all* and 3 is *extremely valuable*.

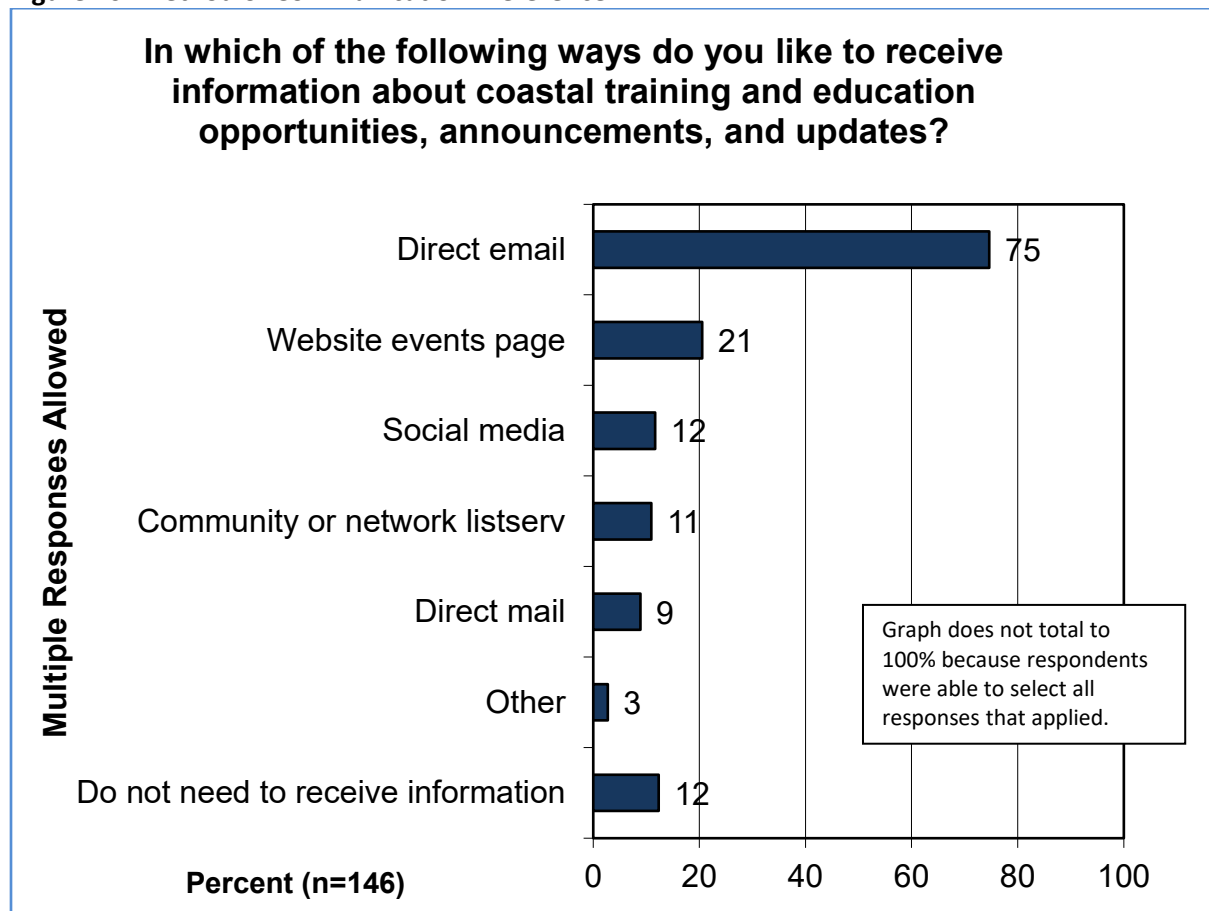
In descending order of mean ratings, the results of the aspect ratings are:

- Site visits or demonstrations (in-person only): mean rating of 2.76
- In-person half- or full-day workshop: 2.68
- Webinars: 2.33
- Small group break-out activities: 2.21
- Panel or roundtable discussions: 2.19

### Communication Preferences

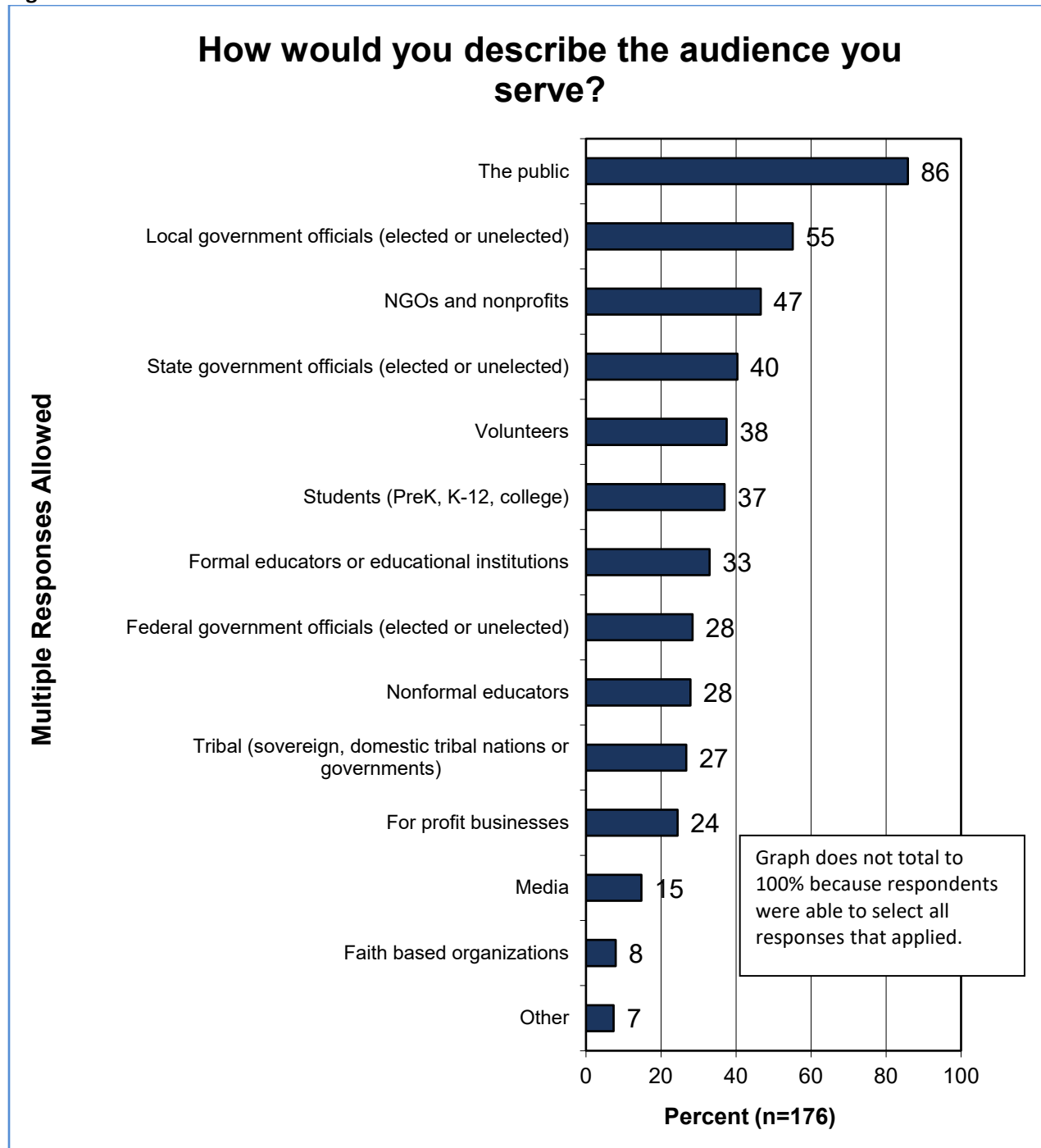
Most respondents agree that direct emails are the preferred method of receiving communication about coastal training and education opportunities, announcements, and updates (75%, full graph shown later in body of report).

Figure 20: Method of Communication Preference



Related to communication, however, it should be noted that several findings from this research indicate that many respondents serve the public (as shown in Figure 21), wish to build trust and communication with the public (Figure 17), and lack the time and capacity to communicate with the public (Figure 18).

Figure 21: Audiences Served



## Educational Programming

**Among those who received questions related to educational programming, the largest percentage (49%) serve the public, specifically adults.**

As can be seen in other questions in the survey regarding audiences, respondents who indicate that educational programming is their primary focus most often serve the adult public. In addition, elementary through high school students and formal educators were also listed by more than 30% of respondents as audiences they serve with educational programming (figure shown in body of report). As a reminder, formal educators, such as K-12 teachers, were not included in this needs assessment; instead, this research focused on organizations that provide coastal management education to formal educators, the public, and others.

**Across different audiences, the most common programs and activities provided by those who focus on educational programming are based on watersheds, habitats and restoration, and fisheries/wildlife ecology. With few exceptions, coastal hazards, emerging contaminants, nature-inspired art, and cultural history were the least provided programs and activities.**

Table 4 shows the top types of programs and activities provided for each audience. Figure 22 shows that more than 50% of respondents offer volunteer opportunities, off-site based programs, internship opportunities for adults, and classroom programs. Finally, Figure 23 shows that 38% of respondents indicated that they are not using Reserve sites for their off-site based programs.

<b>Audience</b>	<b>Top program or activity provided</b>
Pre K/K	Emotional connection to nature, fisheries/ wildlife ecology, nature-inspired art, habitats / restoration
Grades 1-4	Watersheds
Grades 5-8	Watersheds
Grades 9-12	Watersheds
Homeschool educators and/or students	Fisheries / wildlife ecology
Community colleges	Watersheds
4-year colleges	Habitats / restoration
Regional or school systems	Habitats / restoration
Public (youth under the age of 18)	Watersheds, Habitats / restoration
Public (adults over the age of 18)	Habitats/ restoration
Nonformal educators	Habitats / restoration
Formal educators	Watersheds

Figure 22: Educational Services Provided by Organization

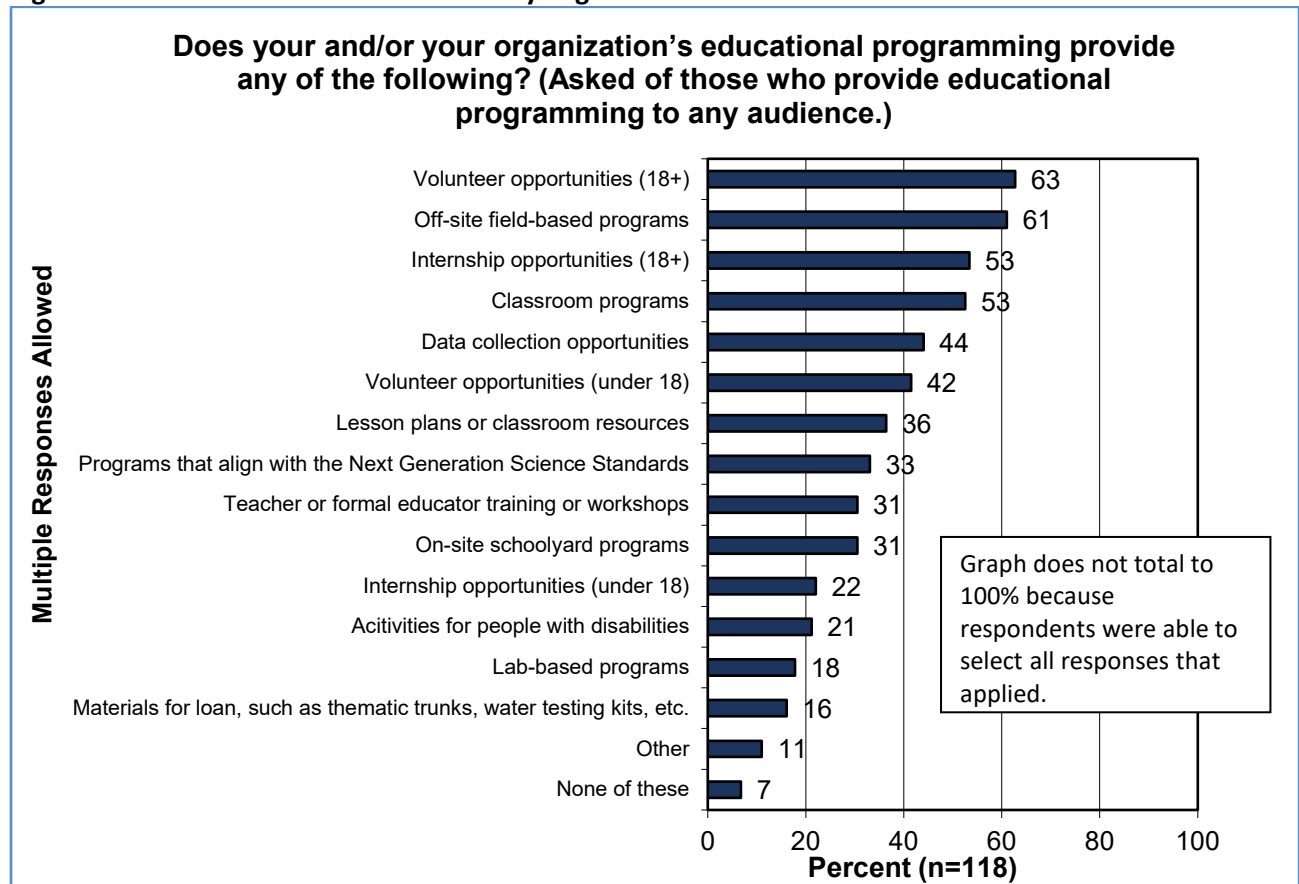
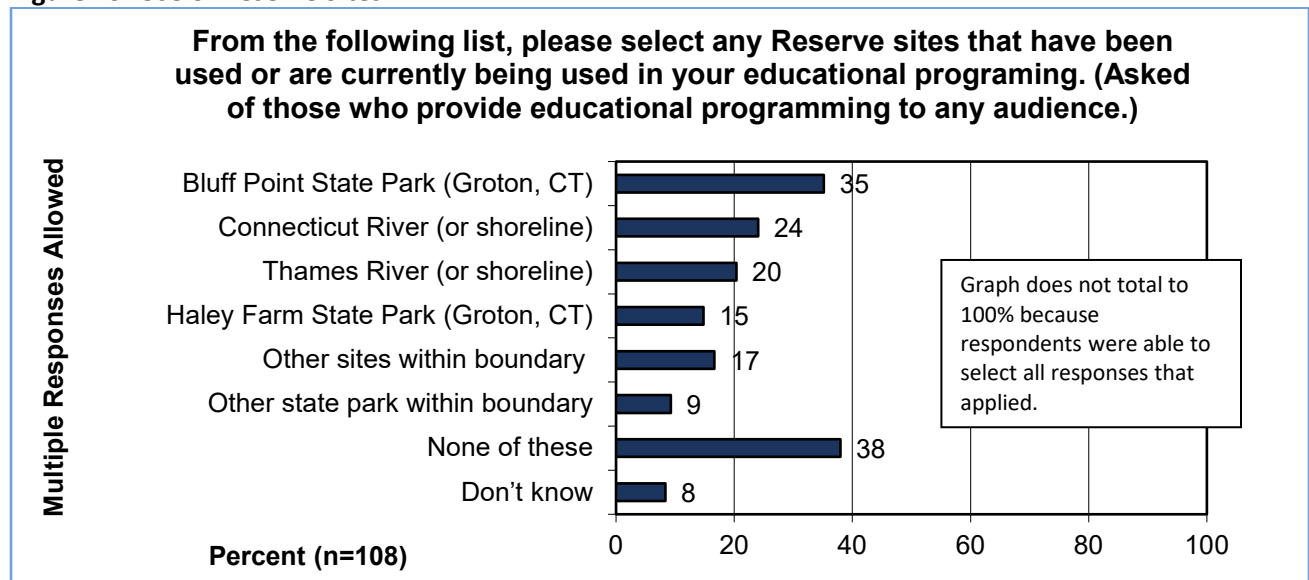


Figure 23: Use of Reserve Sites



**In an open-ended question, respondents were asked what gaps in teacher training and educational programming the Reserve could help with. Respondents often mentioned a need for more place-based learning opportunities, partnerships, and access to research and teaching resources.**

Several respondents indicated that there were many things that the Reserve could help with but did not list specifics. A full list of the responses to this question can be found in Appendix B.

## RECOMMENDATIONS

Based on the key findings from this survey, the project team offers several recommendations to meet the needs of survey respondents. While not all recommendations may be feasible for the CTNERR, needs assessments often reveal gaps that exist that were not previously known to the facilitator (in this case, the CTNERR).

### RECOMMENDATION #1: MARKET PROGRAMS AND RESOURCES

While many respondents indicate they are familiar with the CTNERR, there were a fair number of respondents who listed being unsure of where to access information and being unsure of organizations that offer information as major barriers to better addressing their priority coastal issues. Based on this information, the CTNERR should focus on outreach that specifically outlines the support, resources, and programs they offer.

### RECOMMENDATION #2: SEND DIRECT EMAILS

There is widespread agreement that direct emails are the preferred method of receiving communication about coastal training and education opportunities, announcements, and updates. A smaller percentage of survey participants indicate that providing updates and communication on a website events page would be helpful, but the overwhelming majority prefer direct emails.

### RECOMMENDATION #3: USE A PLACE-BASED APPROACH AND LEARN ABOUT RESPONDENTS WHO ARE USING RESERVE SITES FOR TRAINING AND EDUCATION PROGRAMMING

Respondents indicated that a gap and preference for training and education programming was place-based learning opportunities. As the Reserve offers a number of different sites in which place-based learning can take place, there is a need to develop a better understanding of who is using Reserve sites and for what purpose. This information can ultimately be used to leverage partnerships and fulfill training and education gaps using a place-based approach.

### RECOMMENDATION #4: PROVIDE MATERIALS AND BRIEF SKILL-BASED TRAININGS

When asked about major barriers to participating in skill-based trainings, many respondents indicated they lacked time and/or capacity. Easily distributed materials or brief training seminars or sessions that focus on the top priorities for skill-based training (economic valuation, building trust with communities, stakeholder engagement, and project management) would be helpful to those lacking time and capacity.

**RECOMMENDATION #5: FOCUS TRAINING ON GENERAL TOPICS SELECTED BY MORE THAN 32% OF RESPONDENTS**

Respondents have many training needs, but attempting to focus on all topics might stretch the capacity of the CTNERR. Leveraging partnerships and providing training on the topics of interest for the greatest number of respondents would offer the most utility. Topics of focus should include nature-based solutions to address flooding and erosion; benefits of natural habitats on water quality; living shorelines for habitat restoration and protection; protecting coastal resources, such as dunes, tidal wetlands, and bluffs/escarpments; tidal wetland/marsh migration; invasive assessment and management; stormwater management; municipal climate resilience; coastal hazards management and planning for sea level rise; coastal flooding; habitat mapping; watershed assessment; and land use and nutrient loading to coastal waters (see Figures 8 &9).

**RECOMMENDATION #6: FOCUS MUNICIPAL TRAININGS ON SEA LEVEL RISE AND COASTAL HAZARD MANAGEMENT**

When asked about the biggest challenges municipalities will face in the coming 5 years, respondents most often indicated that they were concerned about changes in precipitation and sea level rise. Current training needs questions revealed similar results (“coastal hazards management and planning for sea level rise” was the top response). As these concerns did not substantially vary from the concerns discussed in municipal research conducted in 2017, there is still a clear need for municipal trainings on these topics.

**RECOMMENDATION #7: CONNECT WITH COMMUNITY LEADERS AND MEMBERS**

Many respondents indicated that they serve the public. Respondents also indicated that they would like to engage in trainings that help them build trust with communities (as seen in the responses to questions in Figure 17 about interests in skill-based trainings). Further, 71% of respondents indicated that some or all the communities they serve are distressed. (The full list of distressed communities provided by survey respondents can be seen in Appendix B.) Given that findings from the 2024 Long Island Sound Study Environmental Justice Needs Assessment indicated that relationship-building with communities and community leaders in distressed communities is an integral part of ensuring ongoing community engagement,<sup>2</sup> the CTNERR staff should continue to develop preexisting relationships with trusted community leaders and build on the work done during the Long Island Sound Environmental Justice Needs Assessment to help facilitate connections and ultimately build community trust.

**RECOMMENDATION #8: BUILD TRAININGS AROUND RESPONDENT LOGISTICAL PREFERENCES**

The findings from this research show many clear preferences for the timing and logistics of coastal training, including time of day, length of training, location of training, and incentives. To increase and encourage participation, it is recommended that, when possible, trainings align with respondent preferences that are detailed in the body of this report.

<sup>2</sup> Responsive Management. 2024. Environmental Justice Needs Assessment for the Long Island Sound Watershed. Conducted for the Long Island Sound Study.

## TABLE OF CONTENTS

Background .....	2
CTNERR Background .....	2
Project Background .....	5
Reading the Report.....	6
Introduction and Methodology .....	7
Sampling .....	7
Questionnaire Design .....	8
Survey Administration .....	8
Data Analysis .....	10
Presentation of Results .....	10
Role Within Organization.....	13
Organizational and Personal Focus.....	15
Awareness of the CTNERR .....	21
Personal and Organizational Needs for Training.....	22
Municipal Issues.....	34
Skill Development Needs .....	40
Training Preferences.....	47
Preferred Communication from CTNERR.....	53
Education Market Analysis .....	54
Demographic Characteristics .....	69
Appendix A: Results by Organization Type .....	70
Appendix B: Open-Ended Responses.....	125
Appendix C: Survey Instrument .....	160
About Responsive Management.....	183

## LIST OF TABLES

Table 2-1. Survey Respondent's Organization Types .....	11
Table 2-2. Verbatim Responses to Types of Education Programming Provided .....	12
Table 2-3. Verbatim Responses to Areas Served.....	17
Table 2-4. Verbatim Responses to Audiences Served .....	20
Table 2-5. Verbatim Responses to Training Topics of Interest.....	24
Table 2-6: Verbatim Responses to Challenges in Addressing Priority Issues .....	33
Table 2-7. Verbatim Responses to Barriers to Public Access (New Access Sites).....	38
Table 2-8. Verbatim Responses to Barriers to Public Access (Existing Access Sites).....	38
Table 2-9. Verbatim Responses to Skill-Based Training Interest .....	40
Table 2-10. Verbatim Responses to Challenges in Skill-Based Training Participation.....	42
Table 2-11. Verbatim Responses to Reasons for Limited Interest in Trainings.....	45
Table 2-12. Verbatim Responses to Incentives for Training Events .....	51
Table 2-13. Verbatim Responses to Education Audience.....	55
Table 2-14. Verbatim Responses to Educational Services Provided by Organization .....	63
Table 2-15. Verbatim Responses to Use of Reserve Sites .....	65
Table 2-16. Verbatim Responses to Use of Other State Park Within Boundary .....	65

Table 2-17. Verbatim Responses to Incentives Provided for Educational Programming.....	67
--	----

## LIST OF FIGURES

Figure 2-1: Glossary of Acronyms Mentioned by Respondents .....	1
Figure 2-2: Map of National Estuarine Research Reserves.....	2
Figure 2-3: CTNERR Boundary Map .....	3
Figure 2-4: CTNERR Boundary Map .....	7
Figure 2-5: Role Within Organization .....	13
Figure 2-6: Continuing Education Units .....	14
Figure 2-7: Organization Focus .....	15
Figure 2-8: Individual Focus .....	16
Figure 2-9: Area Served.....	17
Figure 2-10: Distressed Communities.....	18
Figure 2-11: Audiences Served .....	19
Figure 2-12: Familiarity with Reserve .....	21
Figure 2-13: General Training Needs (Part 1) .....	22
Figure 2-14: General Training Needs (Part 2) .....	23
Figure 2-15: Stormwater Management Training Needs.....	25
Figure 2-16: Nature-Based Solutions Training Needs.....	25
Figure 2-17: Invasives Management Training Needs.....	26
Figure 2-18: Living Shoreline Training Needs .....	26
Figure 2-19: Municipal Climate Resilience Training Needs .....	27
Figure 2-20: Most Immediate Needs 1 (Major Categories).....	28
Figure 2-21: Most Immediate Training Needs 2 .....	29
Figure 2-22: Most Immediate Training Needs 3 (With Follow-Up Subtopics (Part 1)).....	30
Figure 2-23: Most Immediate Training Needs 3 (With Follow-Up Subtopics (Part 2)).....	31
Figure 2-24: Challenges in Addressing Issues .....	32
Figure 2-25: Municipal Issues in Next 5 Years .....	34
Figure 2-26: Local/Municipal Training Priorities.....	35
Figure 2-27: Satisfaction with Coastal Access.....	36
Figure 2-28: Barriers to Public Access.....	37
Figure 2-29: Familiarity with Coastal Public Access Guide .....	39
Figure 2-30: Skill-Based Trainings Needs .....	40
Figure 2-31: Challenges for Skill-Based Training Participation .....	41
Figure 2-32: Experience with Training .....	43
Figure 2-33: Interest in Training .....	43
Figure 2-34: Reasons for Limited Interest in Trainings .....	44
Figure 2-35: Organizations Providing Training.....	46
Figure 2-36: Travel for Training Events.....	47
Figure 2-37: Location of Training Events .....	47
Figure 2-38: Timeframe for Training Events .....	48
Figure 2-39: Time of Day for Training Events .....	48
Figure 2-40: Season for Training Events .....	49

---

Figure 2-41: Value of Training Components .....	50
Figure 2-42: Incentives for Training Events .....	51
Figure 2-43: Method of Communication Preference .....	53
Figure 2-44: Education Audience .....	54
Figure 2-45: Education Programs Provided (Pre K/K).....	56
Figure 2-46: Education Programs Provided (Grades 1-4) .....	56
Figure 2-47: Education Programs Provided (Grades 5-8) .....	57
Figure 2-48: Education Programs Provided (Grades 9-12) .....	57
Figure 2-49: Education Programs Provided (Homeschool Educators and Students) .....	58
Figure 2-50: Education Programs Provided (Community College) .....	58
Figure 2-51: Education Programs Provided (4-Year College) .....	59
Figure 2-52: Education Programs Provided (Regional or School System) .....	59
Figure 2-53: Education Programs Provided (Youth Under 18) .....	60
Figure 2-54: Education Programs Provided (Adults Over 18).....	60
Figure 2-55: Education Programs Provided (Nonformal Educators) .....	61
Figure 2-56: Education Programs Provided (Formal Educators) .....	61
Figure 2-57: Educational Services Provided by Organization .....	62
Figure 2-58: Survey Map of CTNERR Sites .....	64
Figure 2-59: Use of Reserve Sites .....	64
Figure 2-60: Incentives Provided for Educational Programming.....	66
Figure 2-61: Respondent Age.....	69
Figure 2-62: Respondent Ethnic Background .....	69

**Figure 2-1: Glossary of Acronyms Mentioned by Respondents**

<b>Response Given</b>	<b>Full Name of Organization</b>
AIA	American Institute of Architects
ASLA	American Society of Landscape Architects
CAES	Connecticut Agricultural Experiment Station
CAZEO	Connecticut Association of Zoning Enforcement Officials
CCRUN	Consortium for Climate Risk in the Urban Northeast
CERP	Certified Ecological Restoration Practitioner
CIRCA	Connecticut Institute for Resilience and Climate Adaptation
CLCC	Connecticut Land Conservation Council
CT Audubon	Connecticut Audubon Society
CT DEEP	Connecticut Department of Energy and Environmental Protection
CTNERR	Connecticut National Estuarine Research Reserve
ECCD	Eastern Connecticut Conservation District
EPA	US Environmental Protection Agency
EPOC	Environmental Professionals Organization of Connecticut
ESRI	Environmental Systems Research Institute
FEMA	Federal Emergency Management Agency
Groton Town	Town of Groton
LEP	Licensed Environmental Professional
LISS / LISP	Long Island Sound Study / Long Island Sound Partnership
LA CES	Landscape Architecture Continuing Education System
NMEA	National Marine Educators Association
NCLI	National Conservation Leadership Institute
TNC	The Nature Conservancy
NECAN/NERACOOS	Northeast Coastal Acidification Network / Northeastern Regional Association of Coastal Ocean Observing Systems
NEIWPC	New England Interstate Water Pollution Control Commission, which adopted NEIWPC as its formal name
NEMO/CLEAR	Northeast Maritime Online (part of the Northeast Maritime Institute) / UConn's Center for Land Use Education and Research
NOAA	National Oceanic and Atmospheric Administration
NROC	Northeast Regional Ocean Council
Reef Ball	Connecticut Reef Ball Collaborative
RAE	Restore America's Estuaries
RI DEM	Rhode Island Department of Environmental Management
Sea Grant	This refers to the NOAA Sea Grant program
SER	Society for Ecological Restoration
STEM	Science, Technology, Engineering, and Mathematics
UConn	University of Connecticut; most commonly this refers to the Avery Point campus
URI Cooperative Extension	University of Rhode Island Cooperative Extension
USACOE	US Army Corps of Engineers
US HUD	US Department of Housing and Urban Development

## BACKGROUND

### CTNERR BACKGROUND

The National Estuarine Research Reserve System is a network of 30 coastal sites designated to protect and study estuarine systems in collaboration with and service to surrounding communities. Established through the Coastal Zone Management Act, this partnership program between National Oceanic and Atmospheric Administration (NOAA) and the coastal states supports ecosystem health and the interconnectedness of people and the environment. The following map shows the locations of all reserves included in the system.

**Figure 2-2: Map of National Estuarine Research Reserves**



The CTNERR, the most recent addition to the system, was designated into the NOAA's National Estuarine Research Reserve System in 2022. After a series of stalled efforts to establish the Reserve dating back to the 1980s, the Connecticut Designation Steering Committee was created in 2016 to resume efforts. This committee included representatives from the Connecticut Department of Energy and Environmental Protection (CT DEEP), the University of Connecticut (UConn), Connecticut Sea Grant, and the Connecticut Audubon Society. In January 2022, the Reserve was officially designated by NOAA and became the nation's 30th NERR. As of July 2022, the University of Connecticut transitioned into the lead management role for the CTNERR in partnership with CT DEEP, which retains authority for managing public lands owned by CT DEEP.

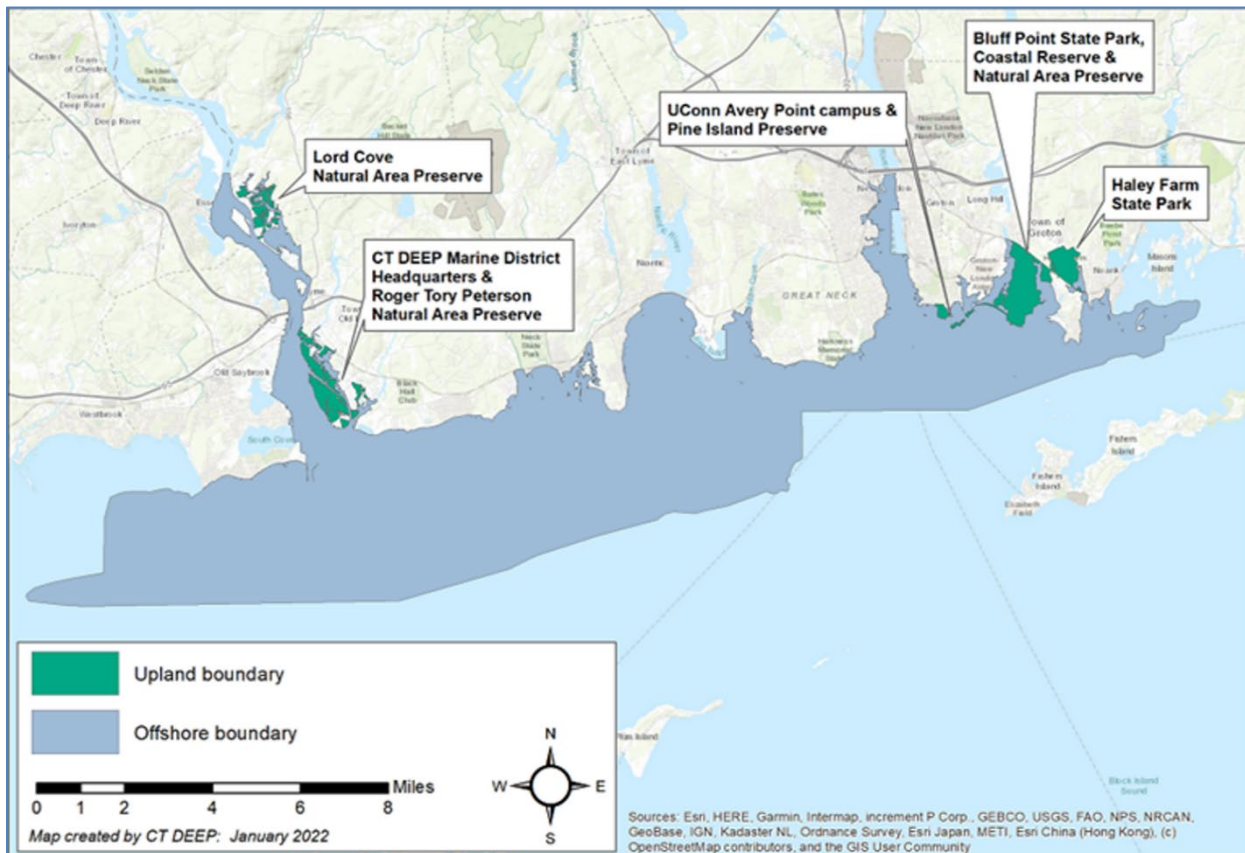
The CTNERR includes more than 50,205 acres in Long Island Sound, Fishers Island Sound, the Thames River, and the Connecticut River, as well as 1,955 acres of state-owned land in the surrounding area (Figure 2-3). All 30 reserves in the NERR System have programs dedicated to stewardship, research, training, and education, with the following three primary goals:

**Goal 1:** Increase our understanding of the effects of human activities and natural events through collaborative research and monitoring to improve informed decision making and support adaptive management of coastal ecosystems.

**Goal 2:** Strengthen stewardship, protection, and management of estuaries and their watersheds through place-based approaches to training and education in order to maintain and enhance natural environments.

**Goal 3:** Advance environmental appreciation and scientific literacy utilizing a place-based approach, to enhance people's ability to make science-based decisions that positively affect estuaries, watersheds, and coastal communities.

Figure 2-3: CTNERR Boundary Map



The CTNERR's mission is to collaboratively integrate science with conservation, learning, recreation, and economic viability using ecologically diverse sites in southeastern Connecticut (a list of these sites follows).

## Reserve Sites

**The Lord Cove Natural Area Preservation** (formerly Lord Cove Wildlife Management Area) encompasses about 200 acres of brackish reed marsh and floodplain forest. In the high-marsh zone, the narrow-leaved cattail can reach an average height of 5 feet and form monospecific colonies. It's also adjacent to intertidal flats and submerged aquatic vegetation beds.

**The Connecticut Department of Energy and Environmental Protection's Marine Headquarters** provide opportunities to support NERR functions and activities. This site includes CT DEEP's Fisheries and Boating divisions, [a boat launch for small vessels](#), and a public access boardwalk along the Great Island marshes.

**The University of Connecticut Avery Point campus** is the headquarters for the Reserve and houses the primary administrative, research, and education offices. The Avery Point facilities, located on 72 acres of land and bordered on three sides by water, contain classrooms, laboratories, and offices. UConn also owns Pine Island in Groton, a State Archaeological Preserve with rich history.

**The Roger Tory Peterson Natural Area Preservation** (formerly Great Island Wildlife Management Area) consists of an extensive system of salt and brackish meadow marshes. It is located at the mouth of the Connecticut River, the only principal river in the northeastern United States without a major port or urban area there. This has preserved the rural character of the regional landscape and helped maintain the River's extraordinary array of natural and relatively undisturbed biotic communities. Although much of this site is protected, visitors can enjoy the [Roger Tory Peterson Estuary Center](#).

**Bluff Point State Park, Coastal Reserve, and Natural Area Preserve** contain a variety of habitats – coastal woodlands, beach and dune grasslands, coastal ponds, coastal bluffs, tidal wetlands, intertidal mud flats, and offshore eelgrass beds. Over 200 bird species have been seen here, including many uncommon to Connecticut that use the area during migration seasons. To learn more, visit the [Bluff Point State Park website](#).

**Haley Farm State Park** is a mosaic of upland and wetland vegetation types. Algae and intertidal plants are found on the shores of Palmer Cove. The swampy areas have red maple and tulip trees, but the uplands include cherry, hickory and shrubs. As a former working farm dating to the Colonial era, remnants of numerous stone walls dot the landscape. Haley Farm is one of the more accessible State parks, providing handicap access to parking and trails. To learn more, visit the [Haley Farm State Park website](#).

The above information is summarized from the CTNERR website. For more detailed information about the Reserve, visit the website at <https://estuarineresearchreserve.center.uconn.edu/>.

## PROJECT BACKGROUND

In order to meet their goals and provide science-based information and skills needed to address coastal management issues, the CTNERR sought to conduct a survey-based needs assessment with a focus on audiences who are or could be involved in education, training, and stewardship activities in the CTNERR's marsh, upland, and open waters of Long Island Sound, Fishers Island Sound, and the lower Connecticut and Thames Rivers. Prior to survey design and sample development, a research review was conducted to develop an understanding of previous social science research conducted in the Long Island Sound region and in the National Estuarine Research Reserve System's adjacent communities.

The Responsive Management project team studied several different needs assessments (including those conducted in the last 10 years in the Connecticut and Long Island Sound regions and those conducted for Reserves throughout the United States). Through the review, researchers were able to establish what information was currently available to the CTNERR and what information or data had not yet been collected from the groups of interest. In addition, the research review aided in developing lists of potential participants and groups to be involved in the survey and questions and key topics that seemed to be of the most utility for other Reserves.

Through discussions with the CTNERR staff, it was decided that the sample for the needs assessment survey would include previous training participants, the CTNERR contacts, and new contacts found via online searches and snowball sampling (suggesting to potential participants that they share the survey with their colleagues and let the researchers know if there were others whose input should be included in the survey).

General survey content was also decided upon through collaboration with the CTNERR, which included questions about respondents' role within their organization, their personal and organizational focus, awareness of the CTNERR and its programs, personal and organizational needs for training, municipal training needs, skill development needs, and preferences for training logistics and receipt of information from the CTNERR. In addition, respondents who indicated that their primary focus within their organization was educational programming were sent down a survey path that included several questions about educational programming and resources used in their work.



As a new addition to the National Estuarine Research Reserve System, this needs assessment survey can aid in identifying gaps in knowledge, interest in information, and preferred formats for delivery of information, training, and education. Further, data collected from this needs assessment survey can be integral in establishing strategic plans for the CTNERR.

**READING THE REPORT**

This report is meant to provide a broad understanding of the professional development needs of individuals involved or interested in coastal management and stewardship. These results should be considered one step in the process of developing this understanding and should be used by the CTNERR to enrich their understanding of the needs of these groups and begin the development of programming and services that meet these needs.

The following report shows the findings of the research conducted for the CTNERR. The report begins with a brief introduction and information about the study methodology. Specific details are shown in sections associated with each portion of the survey. Finally, several appendices include tables of crosstabulations of results by organization type, all open-ended responses, and a copy of the survey instrument.

## INTRODUCTION AND METHODOLOGY

This study was conducted for the Connecticut National Estuarine Research Reserve (CTNERR or the Reserve) to provide a needs assessment for the Reserve's programs. The study entailed a scientific online survey of 176 individuals who are/could be involved in education, training, and stewardship activities in the CTNERR's marsh, upland, and open waters of Long Island Sound, Fishers Island Sound, and the lower Connecticut and Thames Rivers (referred to as respondents for the remainder of this report). The survey topics included, in part, background information such as education and professional experience, experience with the training program, interest in training topics, and preferences for program training delivery and format.

In addition, respondents who indicated their focus included educational programming (developing content programs that promote environmental literacy, and/or providing hands-on opportunities for environmental stewardship for educators, students, volunteers, or community members) were asked a series of questions that served as a follow-up to a needs assessment that was conducted in 2023 to determine what resources were available to educators.

The research methodology for the survey is detailed below.

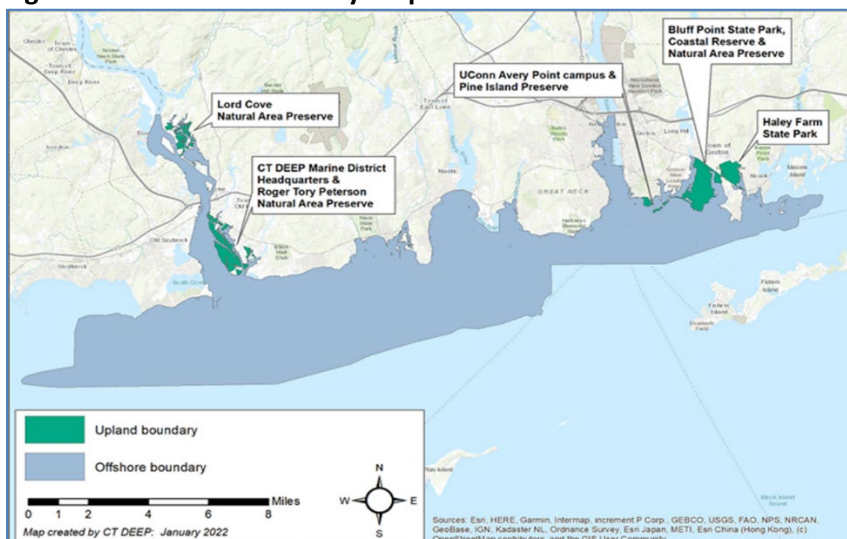
## SAMPLING

The project team, consisting of the CTNERR staff and Responsive Management, developed a sampling plan, first deciding who should be surveyed and then obtaining information on those potential respondents. Such individuals included but were not limited to municipal, federal, state, and local agency staffs; consultants; educators; NGO staffs; tribal members and staffs; and staffs of other relevant conservation organizations such as land trusts and environmental justice advocates.

The CTNERR provided contact lists to Responsive Management, and the project team then supplemented the lists through additional research of agreed-upon categories of organizations.

A map of the offshore and upland Reserve boundaries is shown in Figure 2-4.

**Figure 2-4: CTNERR Boundary Map**



## QUESTIONNAIRE DESIGN

Responsive Management conducted a review of research to help determine where information was available and where information was lacking regarding coastal management and coastal decision-making in Connecticut. Additionally, similar surveys conducted elsewhere in the U.S. (including surveys conducted by Responsive Management) were consulted by the project team in the development of the survey instrument.

Following this research review, the CTNERR and Responsive Management collaborated on developing the survey questionnaire, which included the use of questions from similar needs assessment surveys as well as the development of new questions to address the Reserve's information needs and goals. The survey mostly consisted of a coastal training program needs assessment, although there were also education-focused questions given specifically to respondents who indicated that they are in the education field.

Responsive Management conducted pre-tests of the questionnaire to ensure proper wording, flow, and logic in the survey. Also, a pilot test was conducted with selected respondents, who were asked to provide feedback about the survey. The pilot included an open-ended question in the survey asking for their feedback on survey content, layout, ease, etc., and it allowed them to send emails with additional feedback and comments afterward. Edits were made to the survey based on their feedback.

## SURVEY ADMINISTRATION

The online survey was conducted from April through June 2025. Contact with respondents was made via an email sent by Responsive Management inviting them to participate in the survey. Three reminder emails were sent to nonrespondents at approximately 1-week intervals. Also, as shown in the example email below, recipients of the email were encouraged to share the link with others in their organization.

### Initial Email Invitation to Take the Survey

The [Connecticut National Estuarine Research Reserve](#) has contracted [Responsive Management](#), an independent research firm specializing in natural resources and the environment, to conduct a survey to better understand professional development needs and interests on topics including storm preparedness, habitat, and water quality.

We want your feedback! Your opinions are important to us and your responses will help Reserve staff plan education and training opportunities that are most valuable to you and your colleagues.

[Click Here to Start the Survey](#)

We would love to hear from everyone in your organization whose role in their job or community might involve interest in or a need for education or training in any capacity. If you know of anyone whose opinion on these topics should be included in this survey, please share this link: [SHARE LINK](#).

You can also copy and paste the full link if you prefer: <https://survey.alchemer.com/s3/8237381/email-CTNERR-NA>.

This survey will take approximately 15-20 minutes to complete, depending on your responses.

Responses will remain anonymous, and completing the survey does not obligate you to further participate in Reserve events

If you have any questions or comments about the survey, need technical assistance, or would like to recommend someone for participation in this survey, please contact Responsive Management at [amandacenter@responsivemanagement.com](mailto:amandacenter@responsivemanagement.com) or call 844-836-9364.

As a thank you for completing the survey and for your feedback, you will have an opportunity to enter into a drawing to win one of three prizes: 1) free admission to the Mystic Seaport Museum, 2) free admission to the Mystic Aquarium, or 3) a free trip this summer aboard the local Project Oceanology boat into the Long Island Sound.

Thank you in advance for your time and consideration.

Sincerely,

Katie Lund and Larissa Graham, Connecticut National Estuarine Research Reserve  
and  
Amanda Center, Responsive Management

As an incentive for participation, the survey provided respondents with the opportunity to enter into a drawing to win one of three prizes:

1. Free admission to the Mystic Seaport Museum,
2. Free admission to the Mystic Aquarium, or
3. A free trip this summer aboard the local Project Oceanology boat into the Long Island Sound.

To help ensure the legitimacy of the survey, the CTNERR included an announcement about the survey on its website, as shown to the right, and in its Spring 2025 newsletter.

To further increase the participation rate, Responsive Management called nonrespondents, sent additional links (including links for surveys that had been started but not completed), and left messages with links that included an email address and callback number where potential respondents could contact the project team. In addition, researchers shared links with people who were recommended by those contacted by phone; in other words, the contact list grew over the course of the survey administration. Only two additional surveys were conducted by telephone, but these additional contact efforts ensured that respondents were contacted multiple times and received the information they needed to participate in the survey.

The CTNERR also directly sent out email reminders with links for those who started the survey (i.e., partial links that respondents could use to resume where they had left off) as well as those who had

### Now collecting feedback about professional development needs

Now collecting feedback about professional development needs The Connecticut National Estuarine Research Reserve has contracted Responsive Management, an independent research firm specializing in natural resources and the environment, to conduct a survey to better understand professional development needs and interests on topics including storm preparedness, habitat, and water quality. We want your feedback! Your opinions [...]

May 1, 2025

not started the survey. Responsive Management provided the CTNERR with links to nonrespondents and email templates to send out.

In addition, the CTNERR team decided to include partially completed surveys in the final dataset, provided that the respondents were sufficiently far into the survey. For respondents in an education-related field, partial surveys were included for respondents who answered a question about the educational programming that their organization offers. For all other respondents, partial surveys were included for those who answered a question on which topics they would benefit from Reserve training.

As a quality control measure, the questionnaire was programmed to branch and substitute phrases in the survey based on previous responses to ensure the integrity and consistency of the data collection. The survey questionnaire also contained error checkers and computation statements to ensure quality and consistent data.

Throughout the survey fielding period, Responsive Management research associates and statisticians maintained rigorous quality control over the data collection by monitoring the survey results and ensuring the validity of the responses. After the completed survey questionnaires were obtained, Responsive Management statisticians checked each completed survey for clarity and its degree of completion.

Through the multiple contact efforts and inclusion of partial surveys, Responsive Management obtained 176 questionnaires from respondents.

## **DATA ANALYSIS**

The analysis of data was performed using IBM SPSS Statistics as well as proprietary software developed by Responsive Management. Because the study was an attempted census of a targeted professional audience, the weighting of results and the calculation of a sampling error were not applicable.

Most graphs show results rounded to the nearest integer; however, all data are stored in decimal format, and all calculations are performed on unrounded numbers. For this reason, some results may not sum to exactly 100% because of this rounding on the graphs.

## **PRESENTATION OF RESULTS**

In examining the results, it is important to be aware that the questionnaire included several types of questions:

- Single response questions: Some questions allow only a single response.
- Multiple response questions: Other questions allow respondents to give more than one response or choose all that apply. Questions that allow more than a single response are indicated on the graphs with the label, "Multiple Responses Allowed."
- Open-ended questions are those in which no answer set is presented to the respondents; rather, they respond with anything that comes to mind from the question.
- Closed-ended questions have an answer set from which to choose.

- Scaled questions: Some closed-ended questions (but not all) are in a scale, such as those that range from *very interested* to *not at all interested*.
- Series questions: Many questions are part of a series, and the results are primarily intended to be examined relative to the other questions in that series (although results of the questions individually can also be valuable). Typically, results of all questions in a series are shown together.

Graphs of overall results are shown in the report body, starting with the next chapter. To analyze results more closely, crosstabulations were run on every question based on the respondent's organization type. A table of these categories is shown in Table 2-1.

Although overall results are shown in percentages on the graphs, sample sizes are low for some of the organization types. Therefore, these crosstabulations are presented in tables rather than graphs, and results are reported as frequencies (i.e., the number of people in each groups giving the response) rather than percentages. These crosstabulation tables are presented in Appendix A: Results by Organization Type.

<b>Organization Type Category</b>	<b>Frequency (Number of Respondents in Each Category)</b>
Nonprofit staff	47
State agency staff	34
Municipal staff	27
Academia	27
Volunteer for conservation organization	17
Consultant	15
Land trust committee member	13
Regional agency / organization staff	10
Elected or appointed official	8
Federal agency staff	7
Municipal commission (volunteer)	7
Tribal member / government	3

The sum of these values, 215, is greater than the sample size of 176 because respondents could select more than one category.

Note that, because partial surveys were included, survey questions that were intended for all or certain respondents may not have consistent n-values (sample sizes) between them. Also, respondents were not required to answer all questions (particularly open-ended questions). This method helped reduce respondent fatigue, but it also resulted in inconsistent n-values.

Write-in responses to open-ended questions are shown in Appendix B: Open-Ended Responses. These verbatim responses are organized by organization type, same as the crosstabulation tables. (Exceptions to this are shorter tables with write-in "other" responses. These were included in questions that otherwise provided a list of responses to select from. True open-ended questions and lengthy "other" tables, however, are presented in the appendix to avoid compromising the flow and clarity of the body of the report.)

As noted above, respondents could select multiple organization types. As a result, when someone who has multiple designations provided a comment, it would appear multiple times in the dataset. In cases where it was obvious that multiple comments came from one person, such as for a longer comment, the statement was entered in the table once and the attribution was given for multiple designations. Part of a table is shown below as an example (Table 2-2):

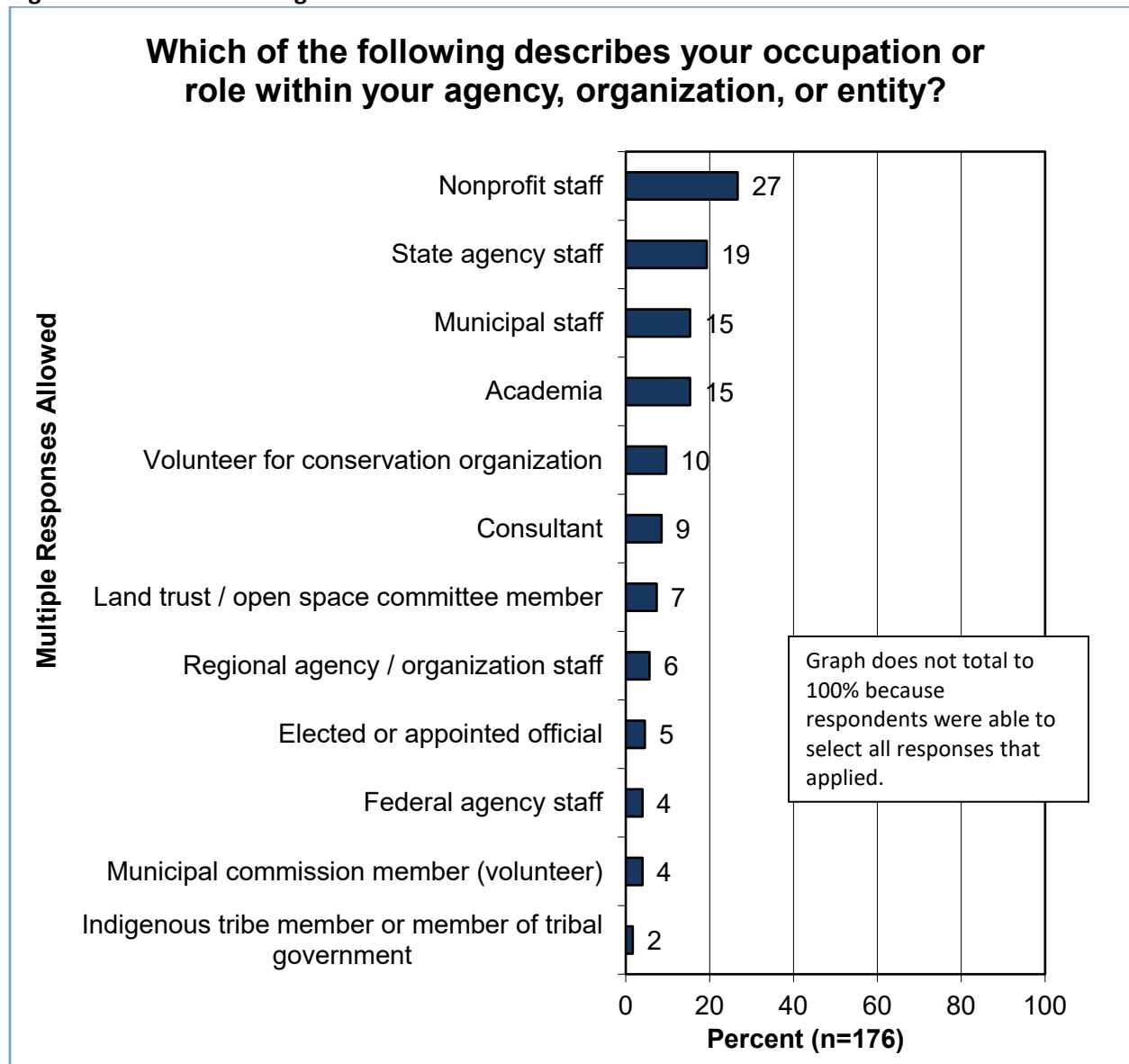
<b>Table 2-2: Verbatim Responses to Types of Educational Programming Provided</b>	
<b>Does your and/or your organization's educational programming provide any of the following? (Write-in "Other" responses)</b>	
Nonprofit staff	Printed and digital resources.
Academia	Projects and programs that align with the Ocean Literacy Principles.
	I want to start some data collection and analysis activities with my students.
	I contribute to multiple types of programming but do not organize such efforts.
Consultant	Interpretive media, exhibit design.
Land trust committee member	Statewide conference, webinars.
Volunteer for conservation organization / Consultant	Depends upon project specific partners.
Nonprofit staff / Academia	Our partners provide all the above-mentioned programs. I primarily provide field-based education programs and in-person presentations in the classroom or elsewhere.

Note that in several cases, however, this was not possible for short responses (e.g., an agency name, "None," "Don't know"), in which case the responses are simply in the table multiple times.

## ROLE WITHIN ORGANIZATION

The roles or positions of survey respondents within their organizations are shown in Figure 2-5. Nonprofit employees, state agency staff, municipal staff, and academics are the organization types most frequently represented in the sample. Note that the graph does not total to 100% because respondents were permitted to select multiple responses. As previously discussed, this result was used for crosstabulations on most survey questions (meaning that many results found later in the report may be sorted by role to understand each group's specific needs and preferences).

Figure 2-5: Role Within Organization

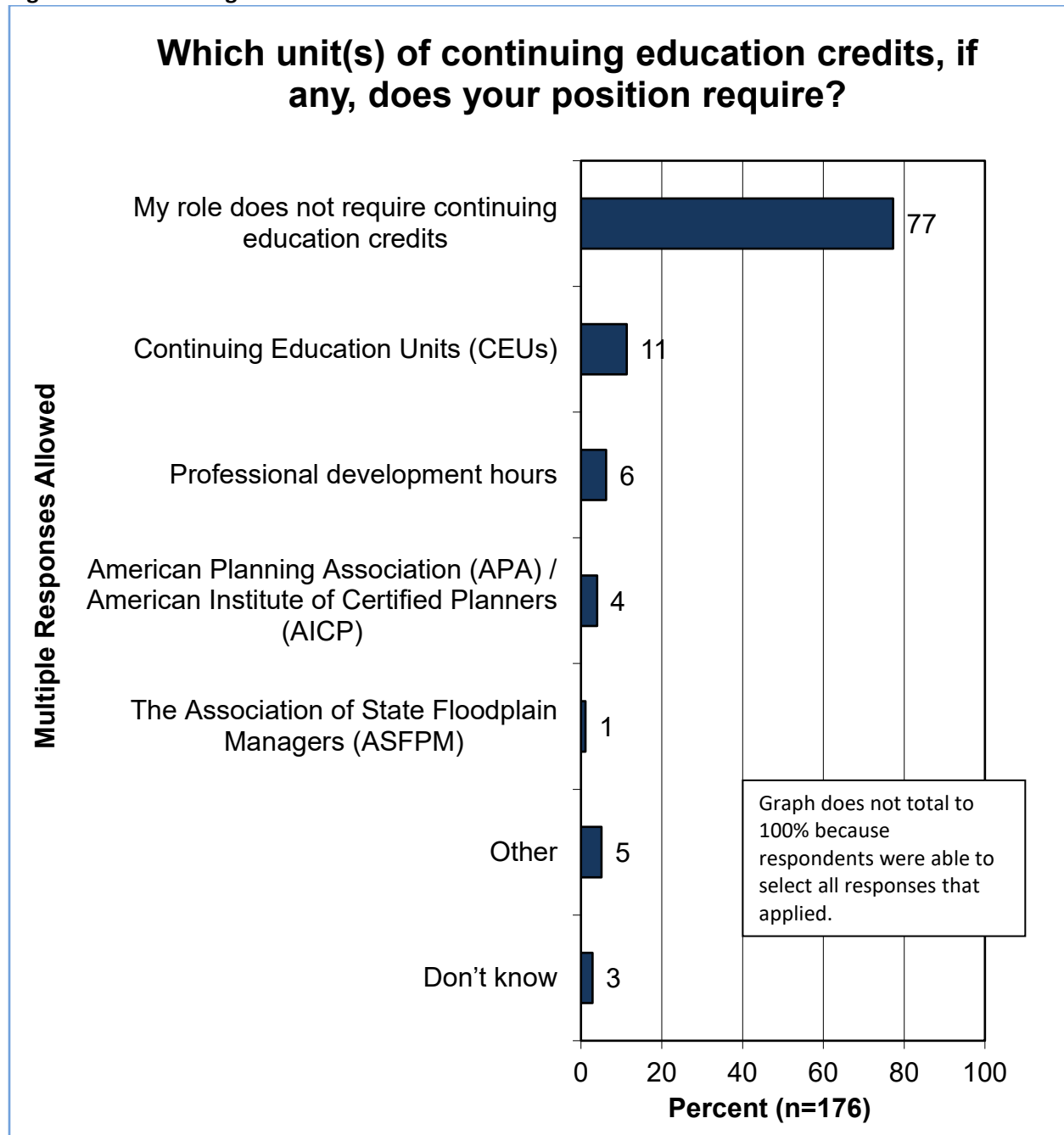


The sample includes one elected official and seven appointed officials; follow-up questions ascertained that the elected official serves at a local level, four of the appointed officials serve at a local level, and the other three appointed officials serve at the state level.

A tabulation of the agencies and organizations represented in the sample, shown within each organization type, is included in Appendix B: Open-Ended Responses.

Most respondents in the survey (77%) are not required to get continuing education credits in their position. Otherwise, Continuing Education Units are the most common type (11% are required to get CEUs).

Figure 2-6: Continuing Education Units

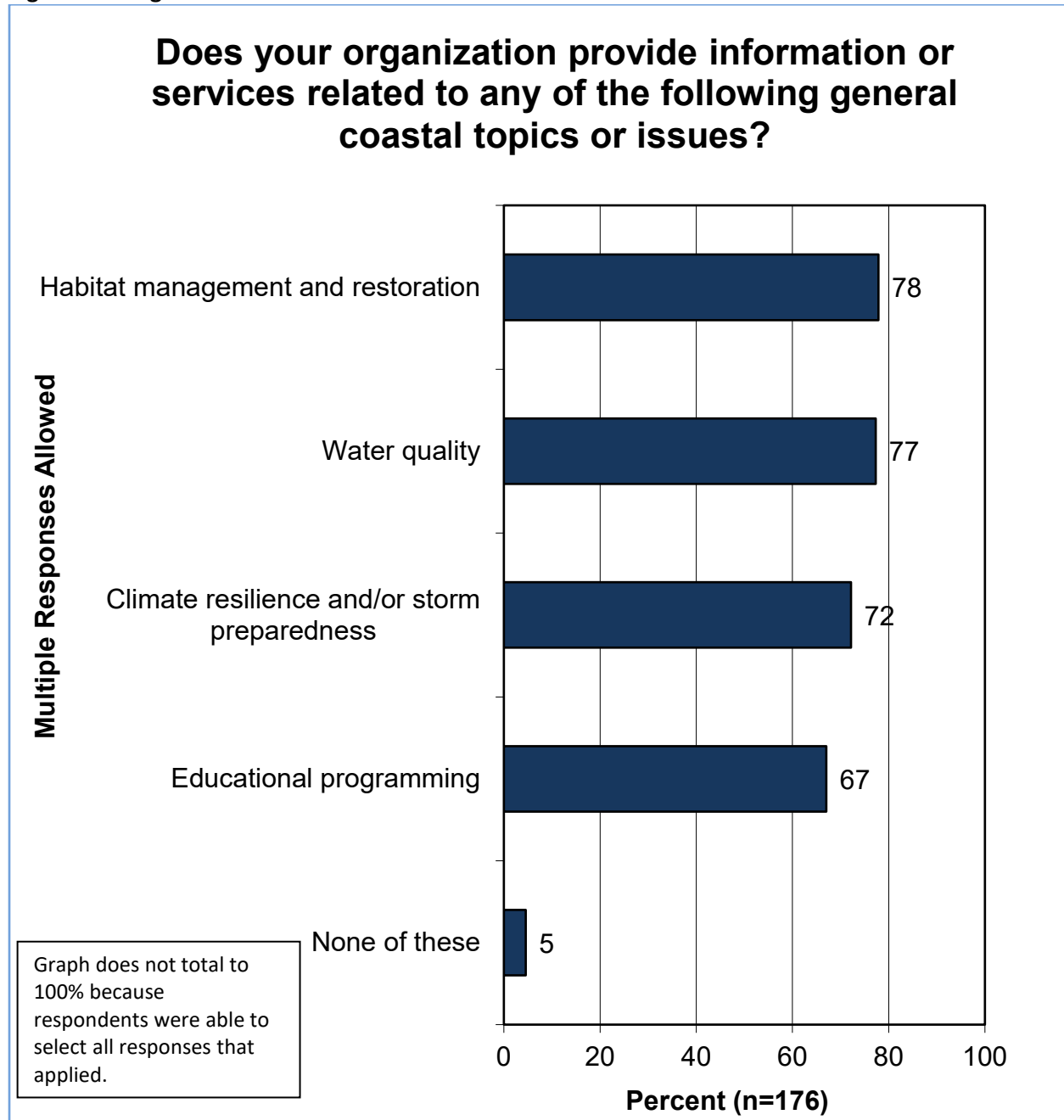


Write-in “other” responses include multiple mentions of Landscape Architecture Continuing Education System (LA CES) credits and Connecticut Association of Zoning Enforcement Officials (CAZEO) credits.

## ORGANIZATIONAL AND PERSONAL FOCUS

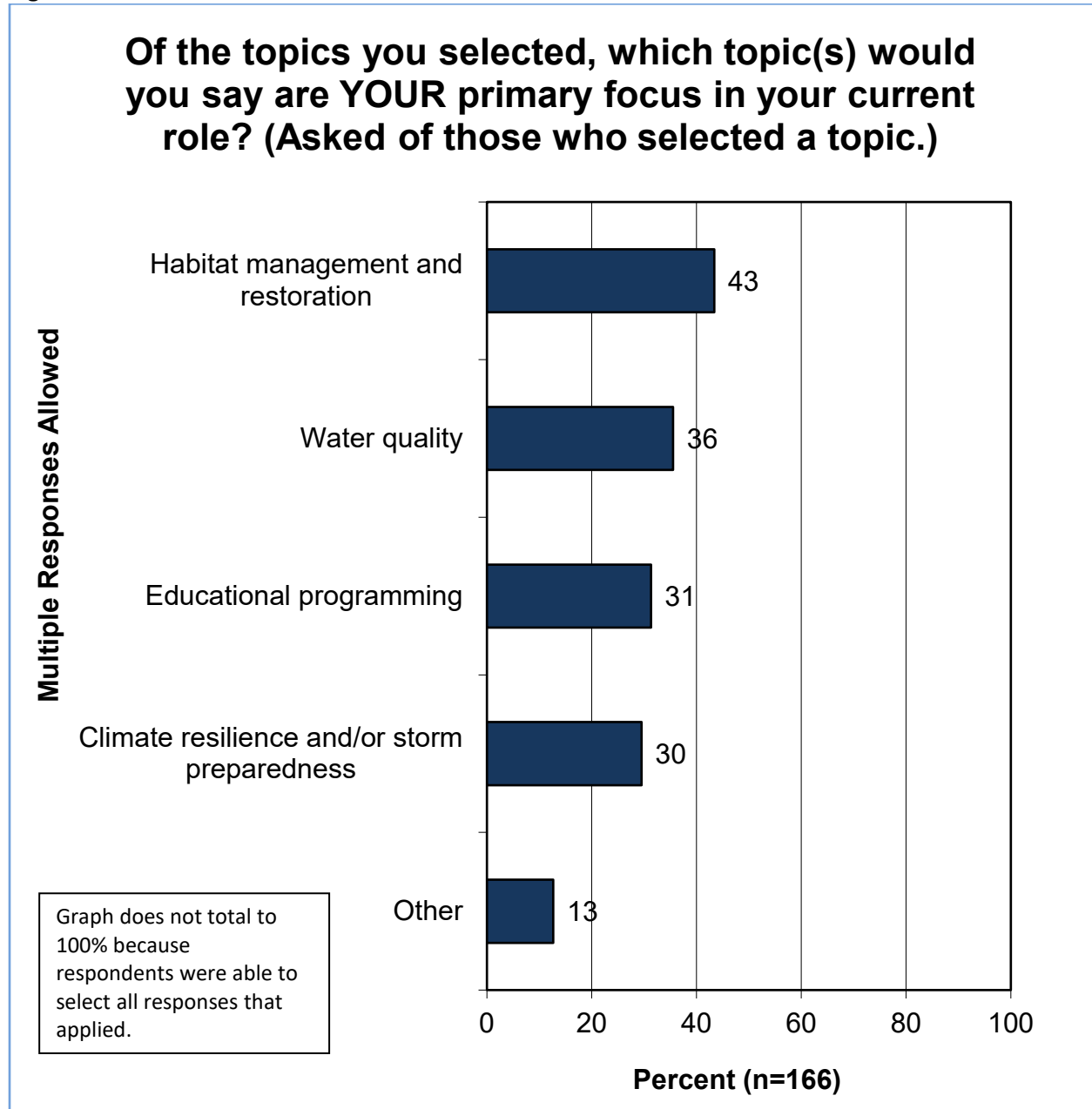
The survey asked respondents if their organization provided information or services for the following four major coastal topics or issues, presented in descending order of frequency: habitat management and restoration (78% indicated this), water quality (77%), climate resilience and/or storm preparedness (72%), and educational programming (67%).

Figure 2-7: Organization Focus



Given the same list of coastal topics, respondents were asked which are their *personal* focus in their current position. Percentages are substantially lower compared to those of their organization's focus, with habitat management and restoration being the most common response (43% selected this). Meanwhile, 30% to 36% selected the other topics. The likely reason for the lower percentage of respondents selecting each topic when asked about their own primary focus is that organizations are focusing on numerous things, while individuals' focus is often narrower.

Figure 2-8: Individual Focus



A tabulation of write-in "other" responses is shown in Appendix B.

The service areas of the respondent organizations are shown. Most often, respondents stated that their organization serves the State of Connecticut (45% stated this), while 25% serve a multi-state area, 24% serve a municipality or city, 17% serve a region of Connecticut (which can include a county or Council of Government), and 8% are with a national organization.

Figure 2-9: Area Served

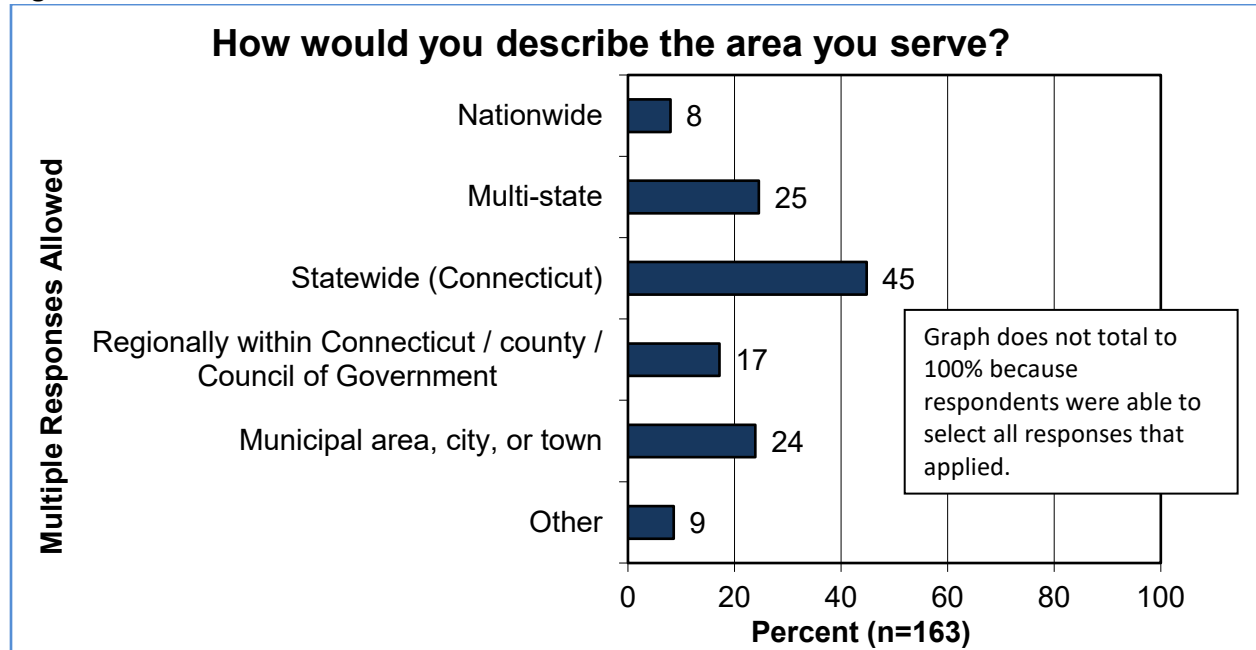


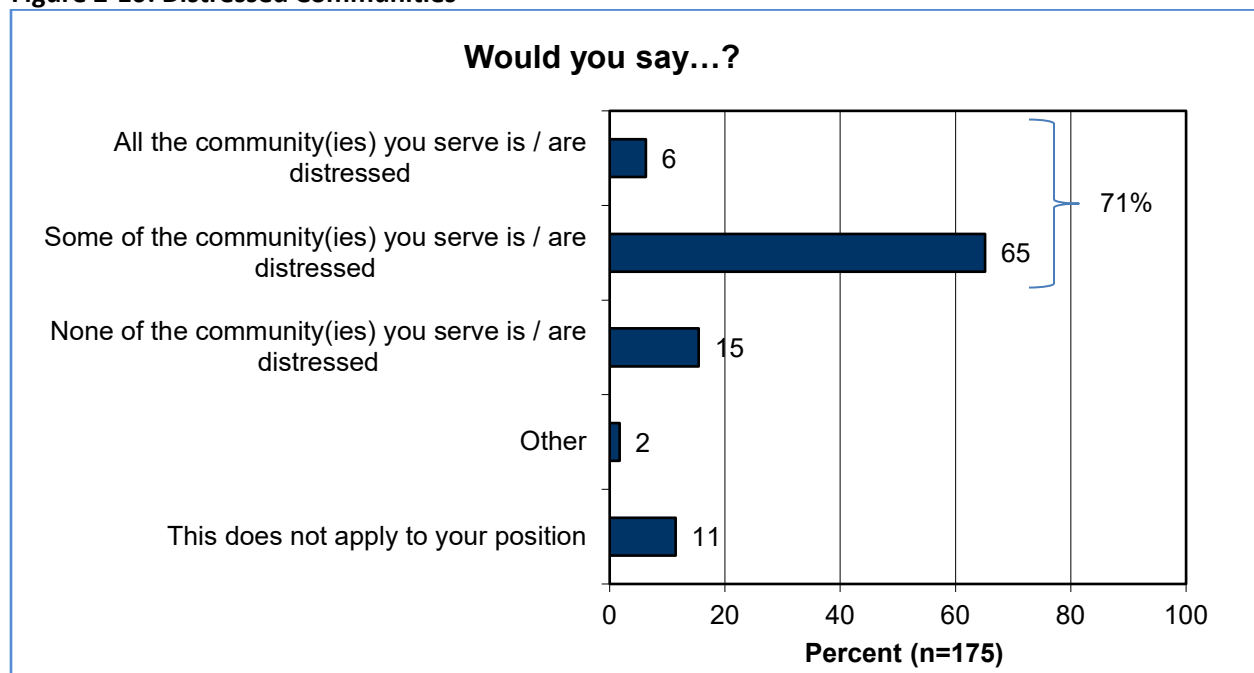
Table 2-3. Verbatim Responses to Areas Served	
How would you describe the area you serve? (Write-in "Other" responses)	
Nonprofit staff	International conservation.
	Wood-Pawcatuck & RI Coastal Ponds Watersheds.
	Salmon River Watershed.
	CT River Watershed.
Academia	I engage in research and policy at state, region, national, and international levels.
	Chaplin, Hampton, Scotland, CT.
	Public School in New York.
	International.
Consultant	Environmental Consulting, mostly Northeast Regional.
Municipal commission (volunteer)	East Lyme, Waterford, Salem, Montville.
Tribal member / government	Tribal Nation Reservation.
	Mohegan Tribe in Connecticut.
Volunteer for conservation organization / Consultant	Nature within urban design.
Volunteer for conservation organization / Consultant / Municipal commission (volunteer)	Westerly, RI.

Those who indicated that they serve a regional area or a municipality were asked to name the specific areas served. Both lists are included in Appendix B.

Prior to the next question, the survey provided the following statement: *Distressed municipalities are defined by the Connecticut Department of Economic and Community Development using statistical indicators measuring the fiscal capacity of each municipality. For more information and to see a list of distressed municipalities, click [HERE](#).*

More than two thirds of respondents (71%) say that at least some of the communities served by their organization are distressed. This compares to 15% who say none of the communities are distressed.

**Figure 2-10: Distressed Communities**

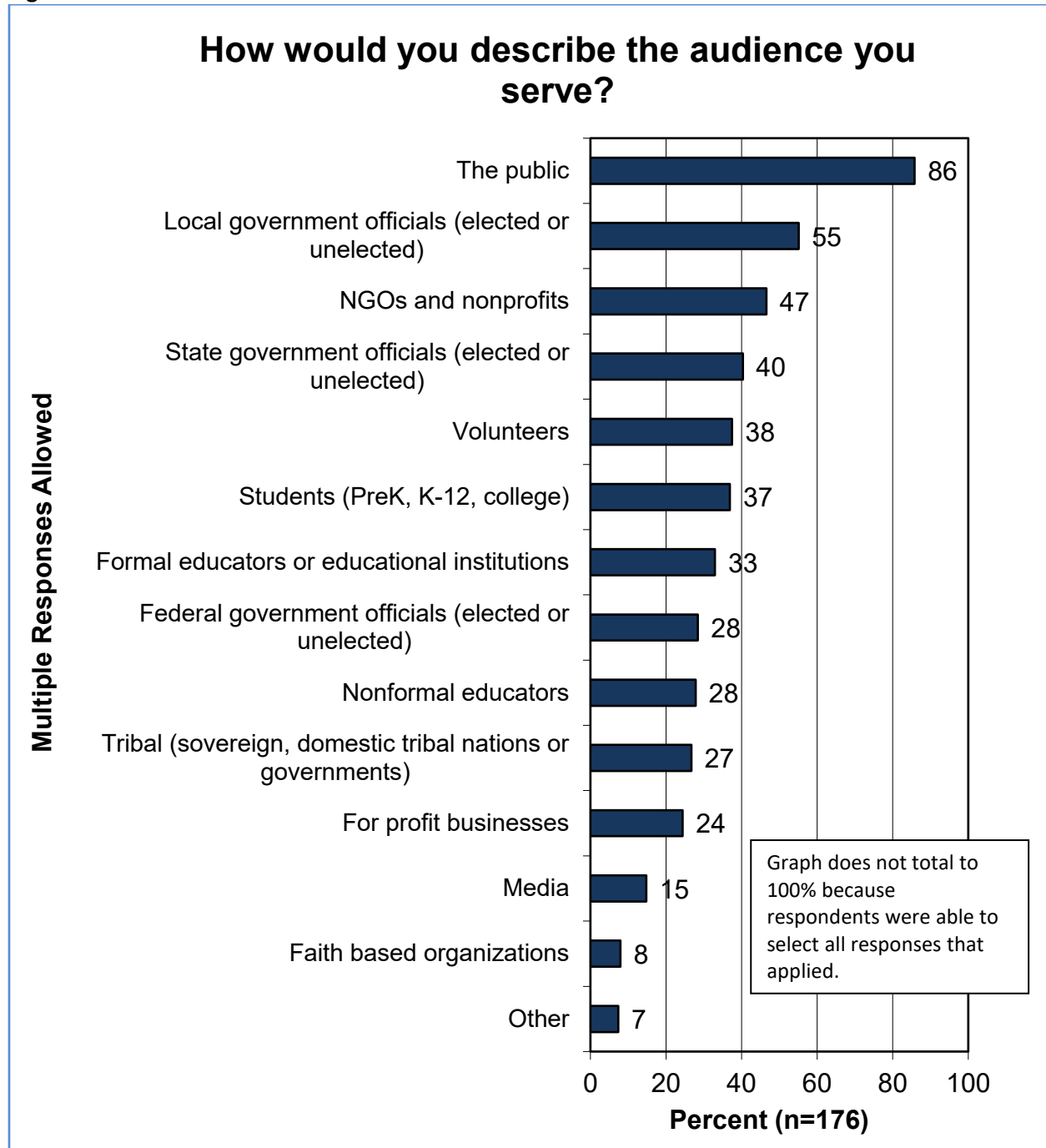


In write-in comments, a tribal member indicated that Connecticut does not recognize Mashantucket Pequot Tribal Nation (MPTN) as a distressed municipality, and an academic stated that sustainable use applies to all communities.

A listing of the distressed communities that are served is included in Appendix B.

From a provided list, respondents most frequently say that the audience they serve is the public (86% selected this), by far the top response. A secondary tier of audiences, ranging from about a third to a half of respondents selecting them, are local government officials, NGOs and nonprofits, state government officials, volunteers, students, and educators. The full list is shown.

Figure 2-11: Audiences Served



<b>Table 2-4. Verbatim Responses to Audiences Served</b>	
<b>How would you describe the audience you serve? (Write-in "Other" responses)</b>	
Nonprofit staff	Our goal really is working with the entire community. Of course, we do so at different levels of engagement within each group listed.
	Current and aspiring aquaculture farmers, commercial fishermen.
	Aquarium and zoo conservation efforts.
State agency staff	Engineers/consultants.
	Consultants.
Municipal staff	The City of New London community is made up of visitors, property owners, residents, business owners, etc.
Academia	The larger estuarine science community.
	International e.g., UN, FAO, RFMOs.
Consultant	No-cost sharing of concepts and principles of environmental management, focusing on watershed health, for environmental and human health and well-being for general consumption.
Land trust committee member	Land Trusts.
Federal agency staff	Farmers and private forest landowners.
Elected or appointed official / Municipal staff	Recreational & Commercial Boaters.

## AWARENESS OF THE CTNERR

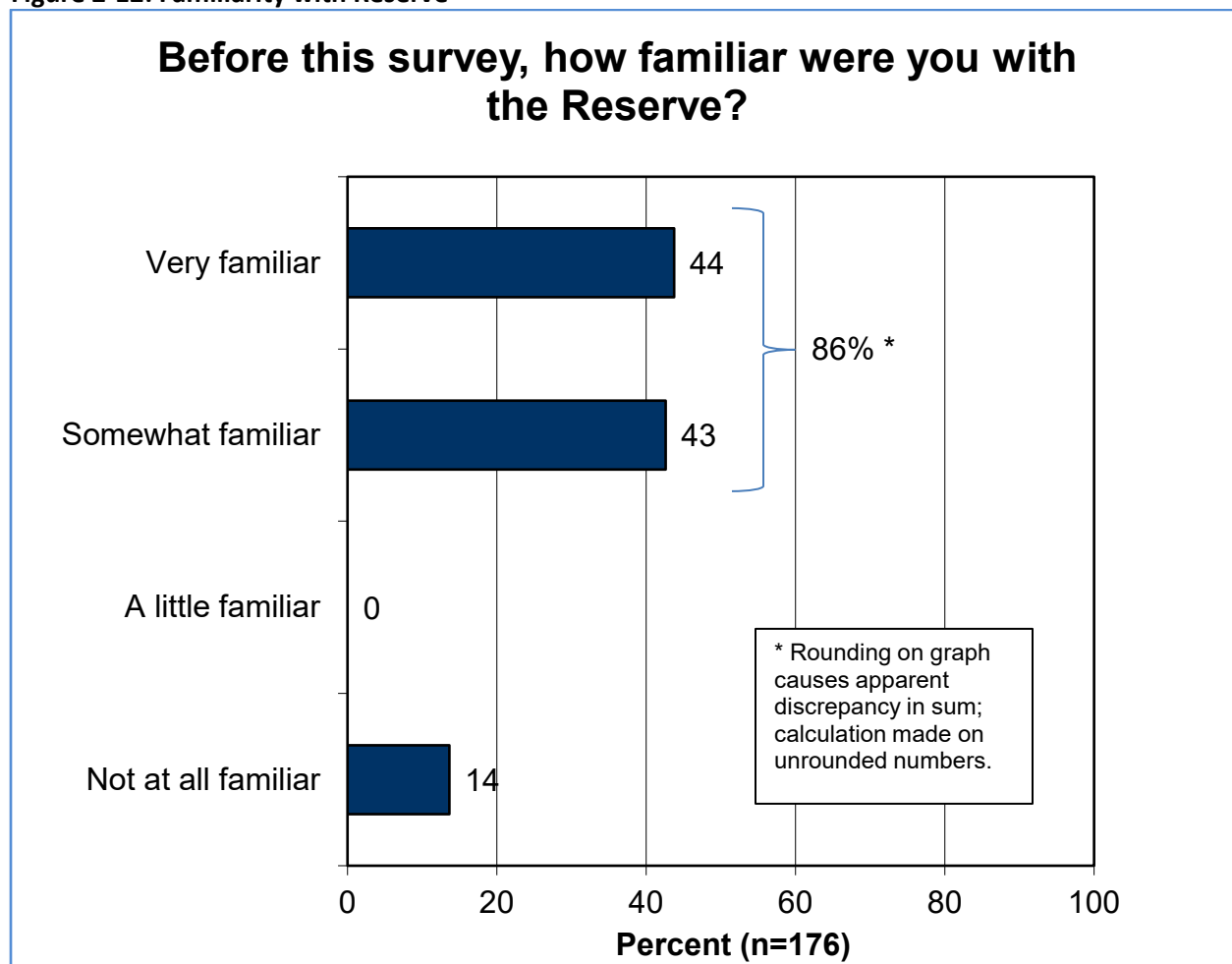
The following information was provided to respondents in the survey:

*The Connecticut National Estuarine Research Reserve is one of 30 Reserves around the coastal United States that form the National Estuarine Research Reserve System. For the remainder of this survey, the Connecticut National Estuarine Research Reserve will be referred to as “the Reserve.”*

*The Reserve includes more than 52,000 acres in Long Island Sound, Fishers Island Sound, the Thames River, and the Connecticut River, with their headquarters in Groton. Through research and monitoring, resource stewardship, training, and education, the Reserve promotes healthy estuaries, watersheds, and resilient coastal communities.*

The information was followed by a question about familiarity with the Reserve. Nearly all respondents (86%, summed on unrounded numbers) were *very familiar* (44%) or *somewhat familiar* (43%) with the Reserve prior to the survey.

Figure 2-12: Familiarity with Reserve



## PERSONAL AND ORGANIZATIONAL NEEDS FOR TRAINING

The following statement was provided to respondents: *The Reserve's Training Program brings information to practitioners for improved decision making on a variety of coastal management topics.*

Respondents were then provided with a list of topics in which the Reserve or its partners have expertise, and they were asked to select the ones in which they would benefit from training (as previously mentioned, these topics fell under the three major categories of coastal management established for this survey: habitat management and restoration, climate resilience and/or storm preparedness, and water quality). The most-selected responses are nature-based solutions to address flooding and erosion (52% of respondents selected this), benefits of natural habitats on water quality (48%), and living shorelines for habitat restoration and protection (44%). The full list of responses is shown in Figures 2-13 and 2-14.

Figure 2-13: General Training Needs (Part 1)

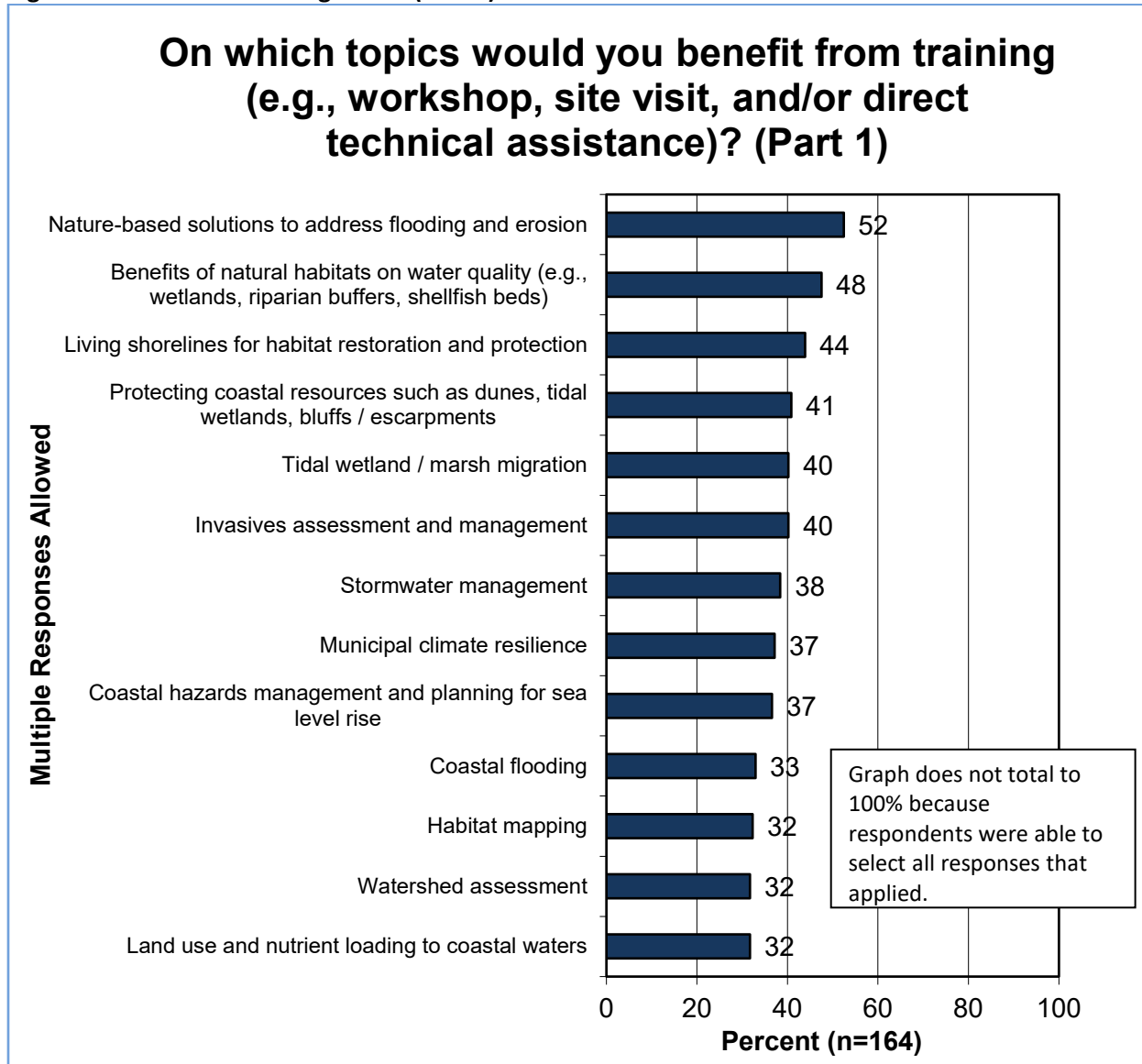
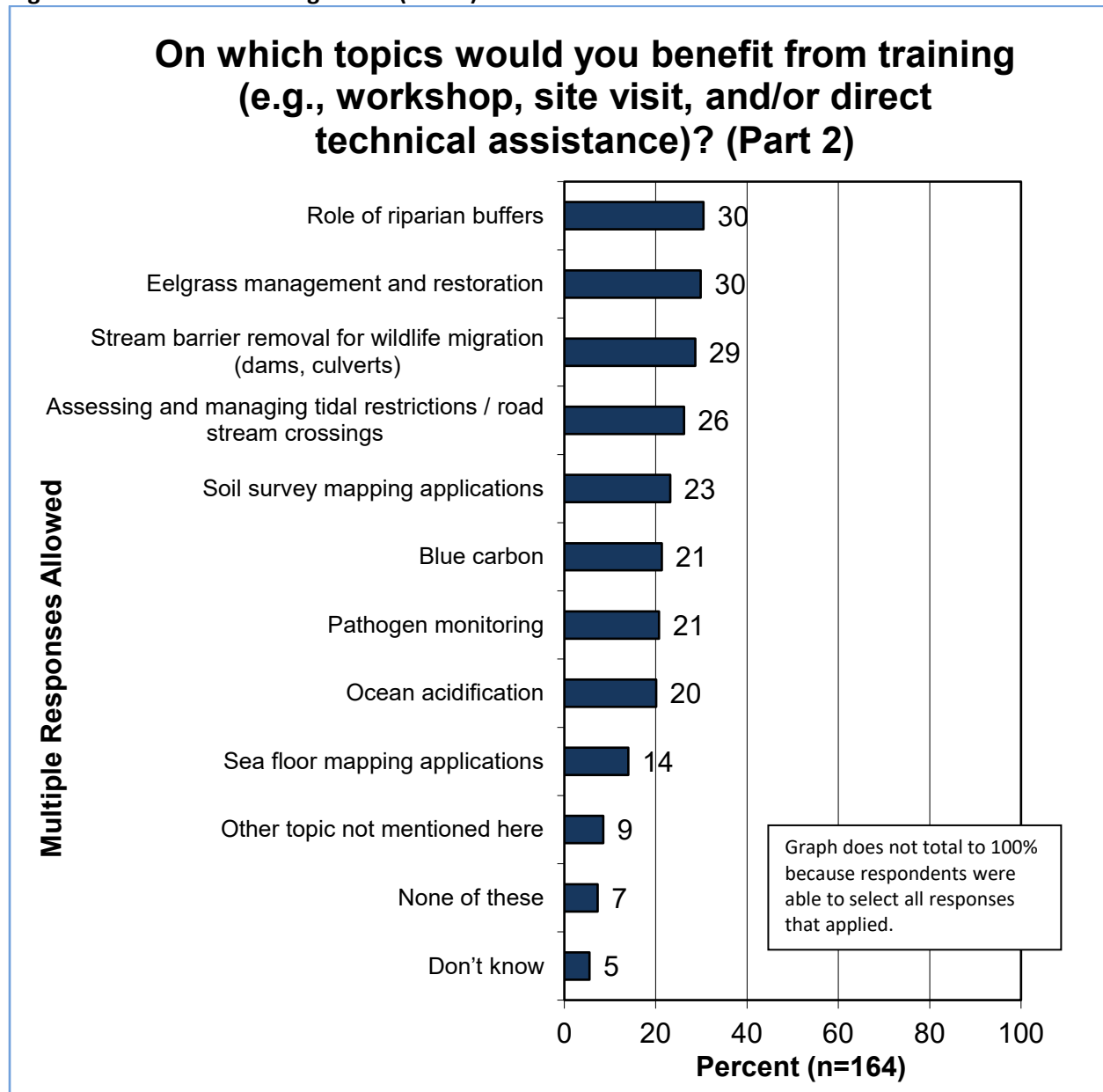


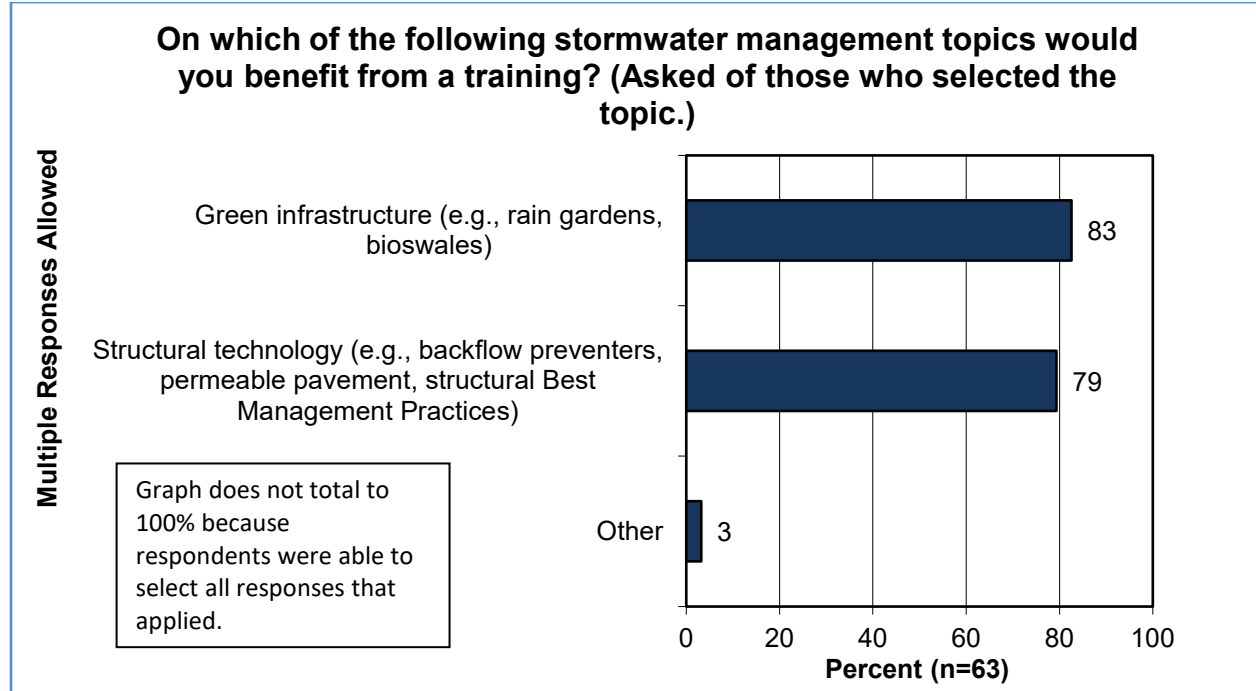
Figure 2-14: General Training Needs (Part 2)



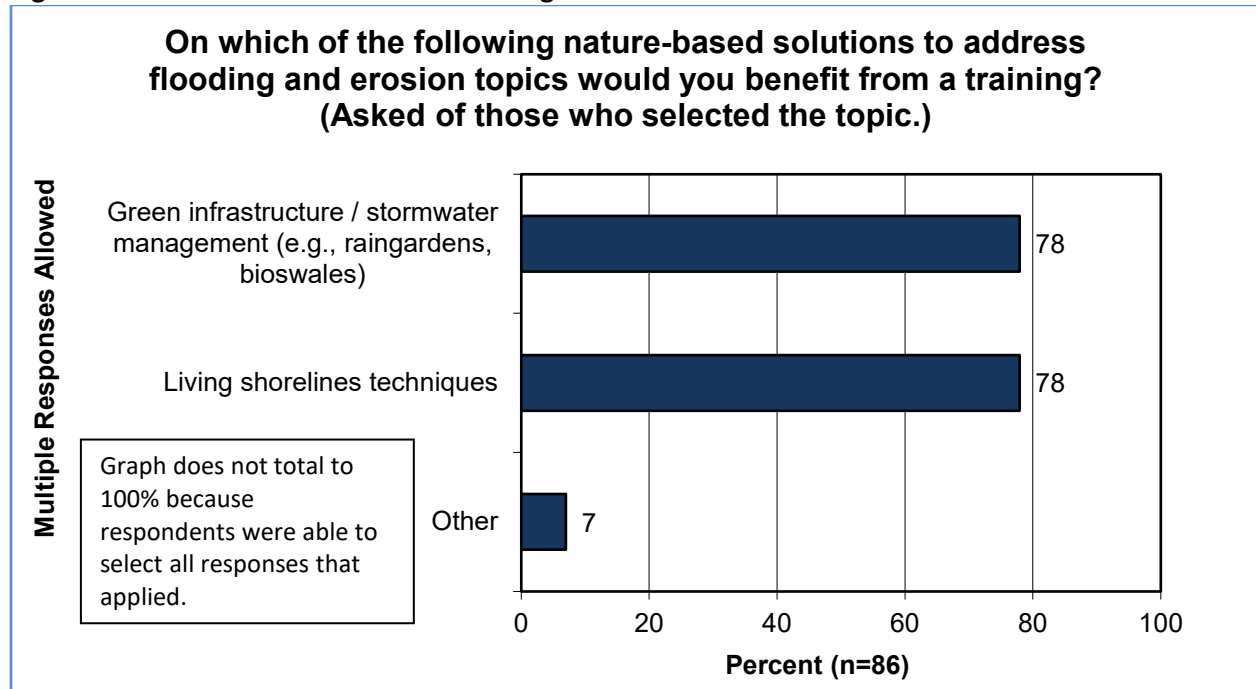
<b>Table 2-5. Verbatim Responses to Training Topics of Interest</b>	
<b>On which topics would you benefit from training (e.g., workshop, site visit, and/or direct technical assistance)? (Write-in "Other" responses)</b>	
Nonprofit staff	We have expertise in these areas. My colleagues and I give trainings about culverts and barrier removal.
State agency staff	Nonpoint Source Pollution.
Academia	Linking biodiversity to functional roles and addressing needs of both humans and nature.
	It might be easier for you to select the topics that are more math (statistics or calculus) intensive and/or require computer science skills. I'm excited about any of these topics.
	I don't know, because most of the CT Sea Grant staff also have expertise in many of the areas listed here. It seems we should be working together more than we are, based on the items in this survey.
Consultant	Working with Nature and conservation and natural recovery solutions for transitional aquatic and watershed ecosystem change. The only path forward that accommodates and nurtures, rather than resists, unavoidable environmental change that supports a balance.
	These topics could be of interest related to specific contracts we have with individual organizations, mostly private sector.
Federal agency staff	We work on habitat restoration in coastal habitats and have expertise in these topics but can always benefit from workshops with other practitioners.
Consultant / Municipal commission (volunteer) / Volunteer for conservation organization	Septic/cesspool phase out.
Land trust committee member / State agency staff / Volunteer for conservation organization	Recreational management.

Respondents who selected the following topics were given follow-up questions about specific aspects of those topics: stormwater management, invasives assessment and management, flooding and erosion, living shoreline techniques, and municipal climate resilience.

**Figure 2-15: Stormwater Management Training Needs**

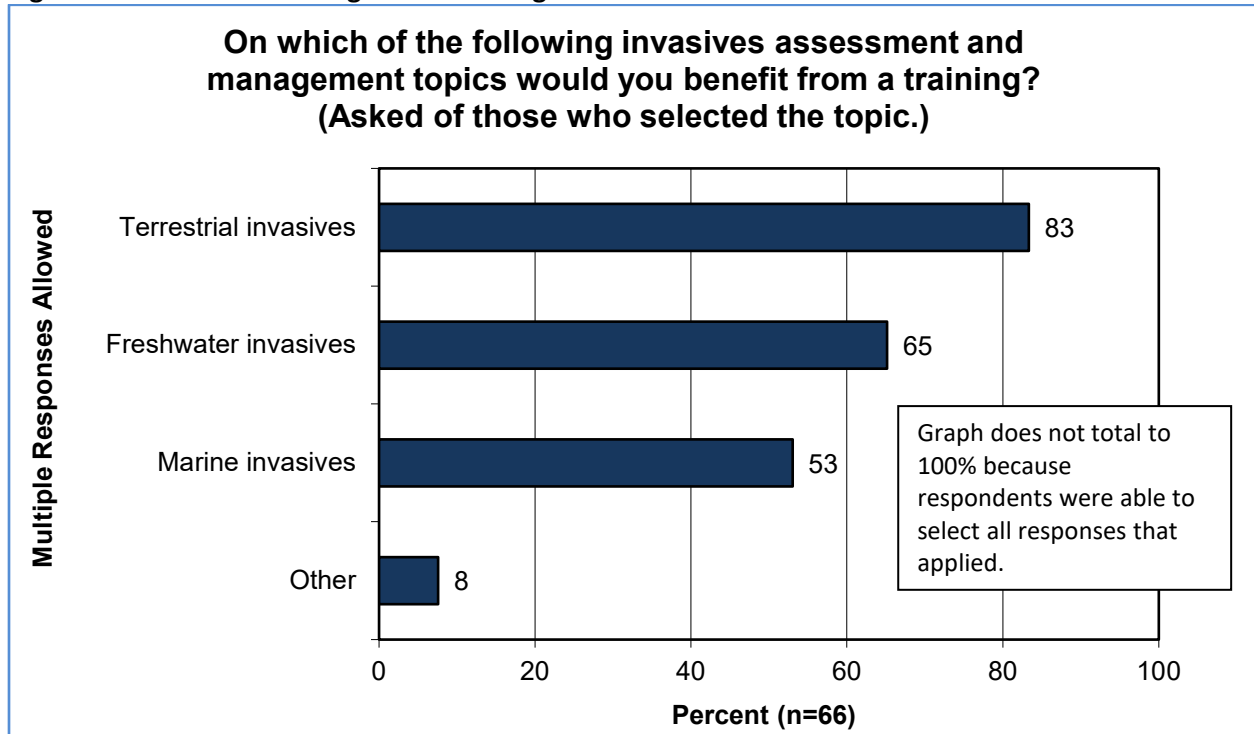


**Figure 2-16: Nature-Based Solutions Training Needs**



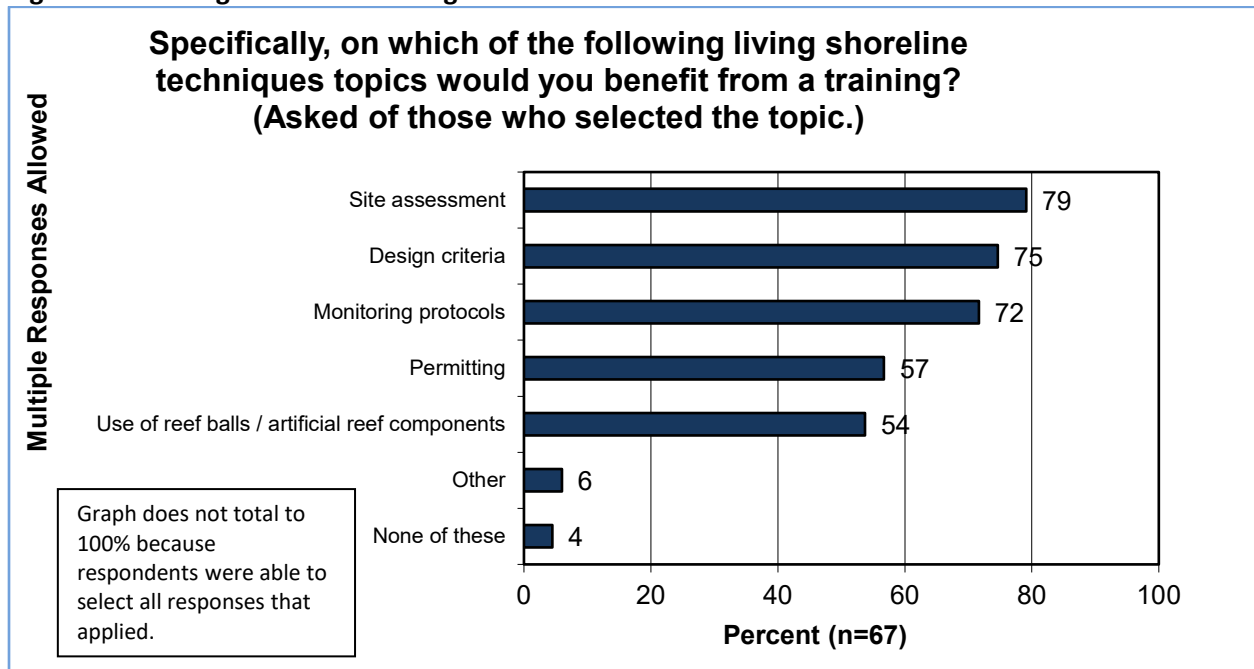
Write-in additions include cobble berms, climate resilience, bioswales, and riparian buffers. One respondent stated that these are treatment practices, not nature-based solutions, which require broad-scale structural and functional conservation.

**Figure 2-17: Invasives Management Training Needs**



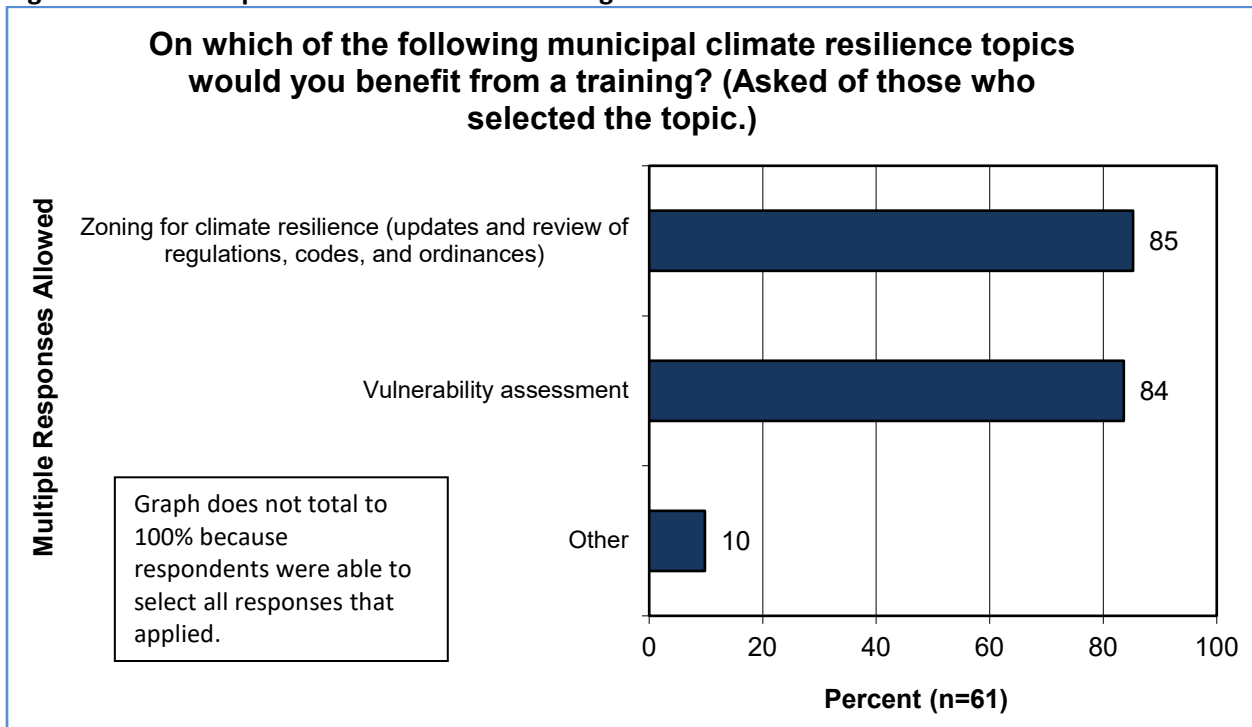
Write-in additions include tidal/coastal invasives, plants or vegetation, and phragmites.

**Figure 2-18: Living Shoreline Training Needs**



Write-in additions include maintenance and a general overview. One respondent indicated interest in all the topics but stated that it is not a high priority.

**Figure 2-19: Municipal Climate Resilience Training Needs**



Write-in additions include municipal needs or assistance, moving up managed retreat, and community communication for people living in coastal risk areas.

Next, respondents were presented with the same list and asked to select the topics that represent their most immediate needs for training. For conciseness, the survey only included topics selected in the previous questions by each respondent, including the follow-up subtopics, for this question. Results were generally ranked in a similar order to the lead-in question, albeit at lower percentages.

Figure 2-20 shows the highest training need by major category, Figure 2-21 shows immediate training needs grouped by major category and second-level category (in other words, one step down from the major category), and finally, Figure 2-22 shows second-level categories ranked in order with follow-up subtopics included (or a second step down).

**Figure 2-20: Most Immediate Needs 1 (Major Categories)**

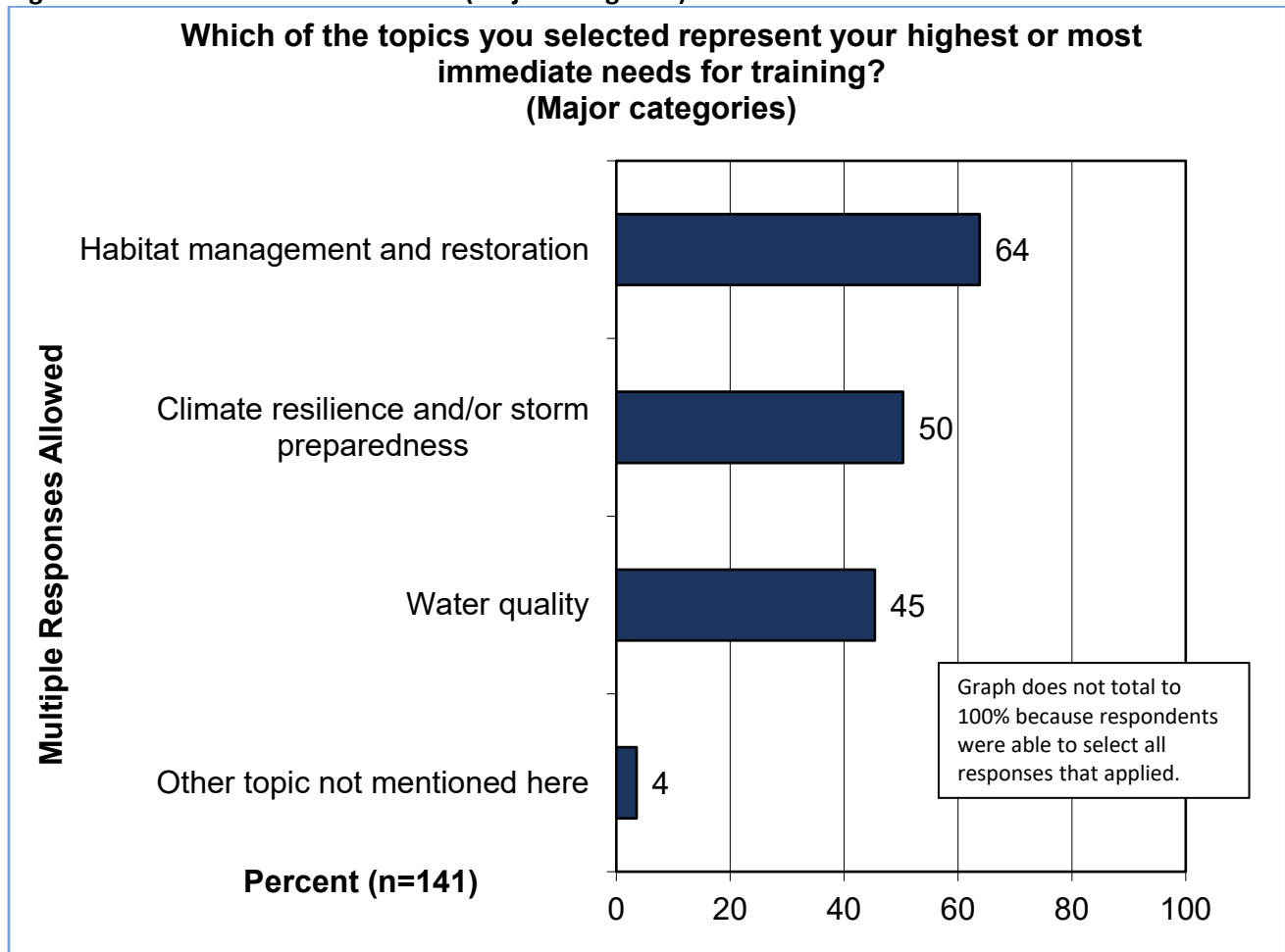


Figure 2-21: Most Immediate Training Needs 2

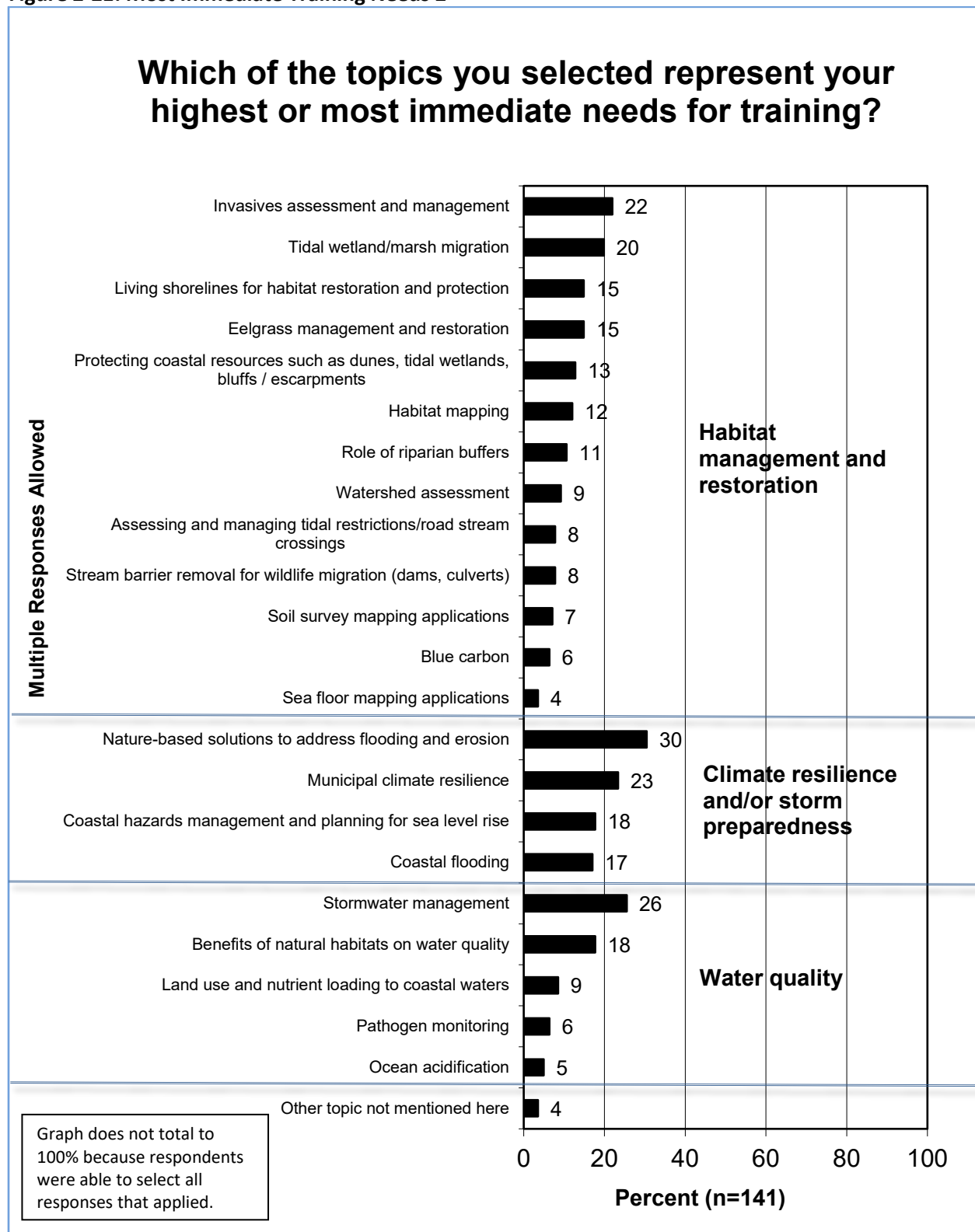


Figure 2-22: Most Immediate Training Needs 3 (With Follow-Up Subtopics (Part 1))

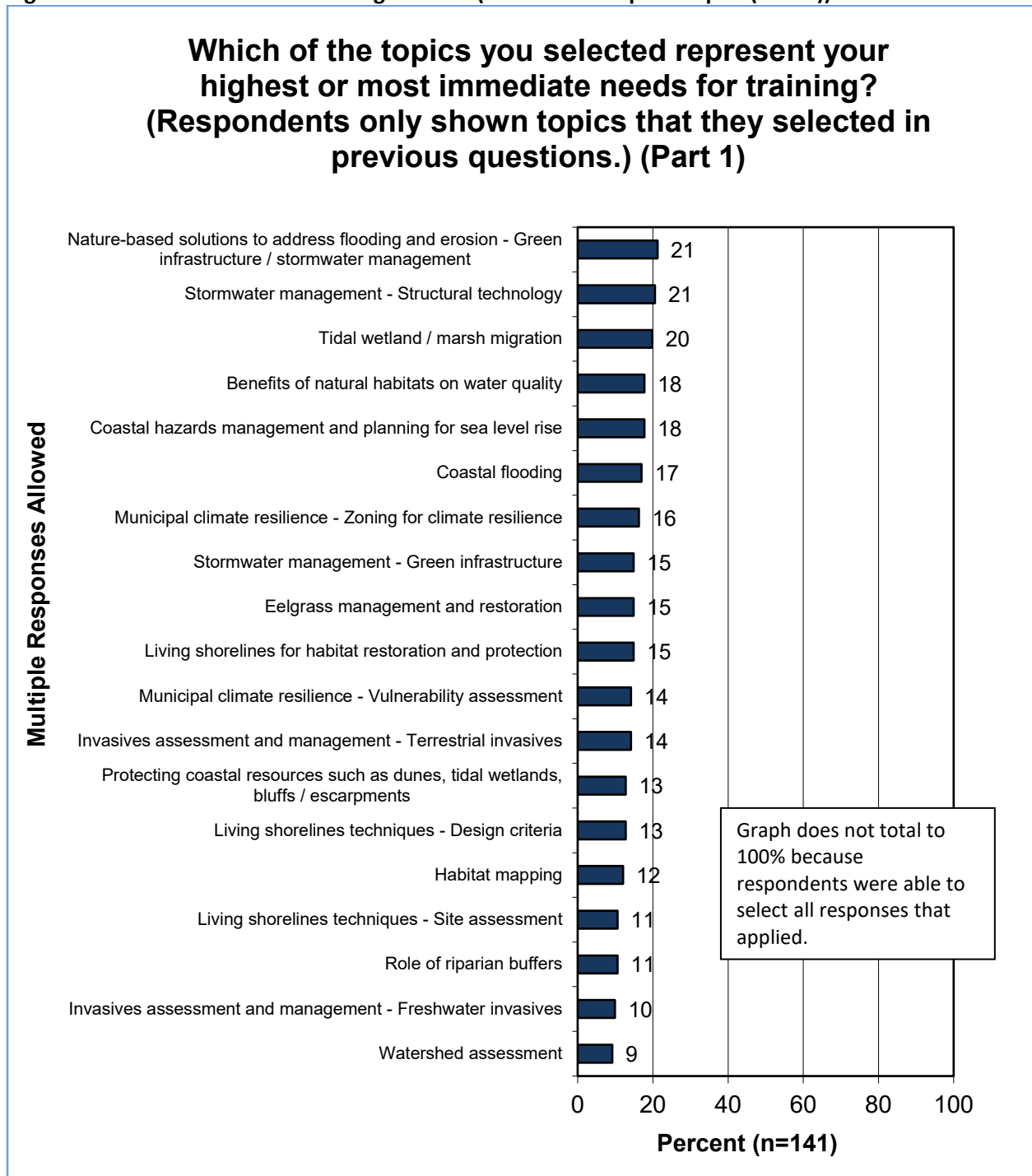
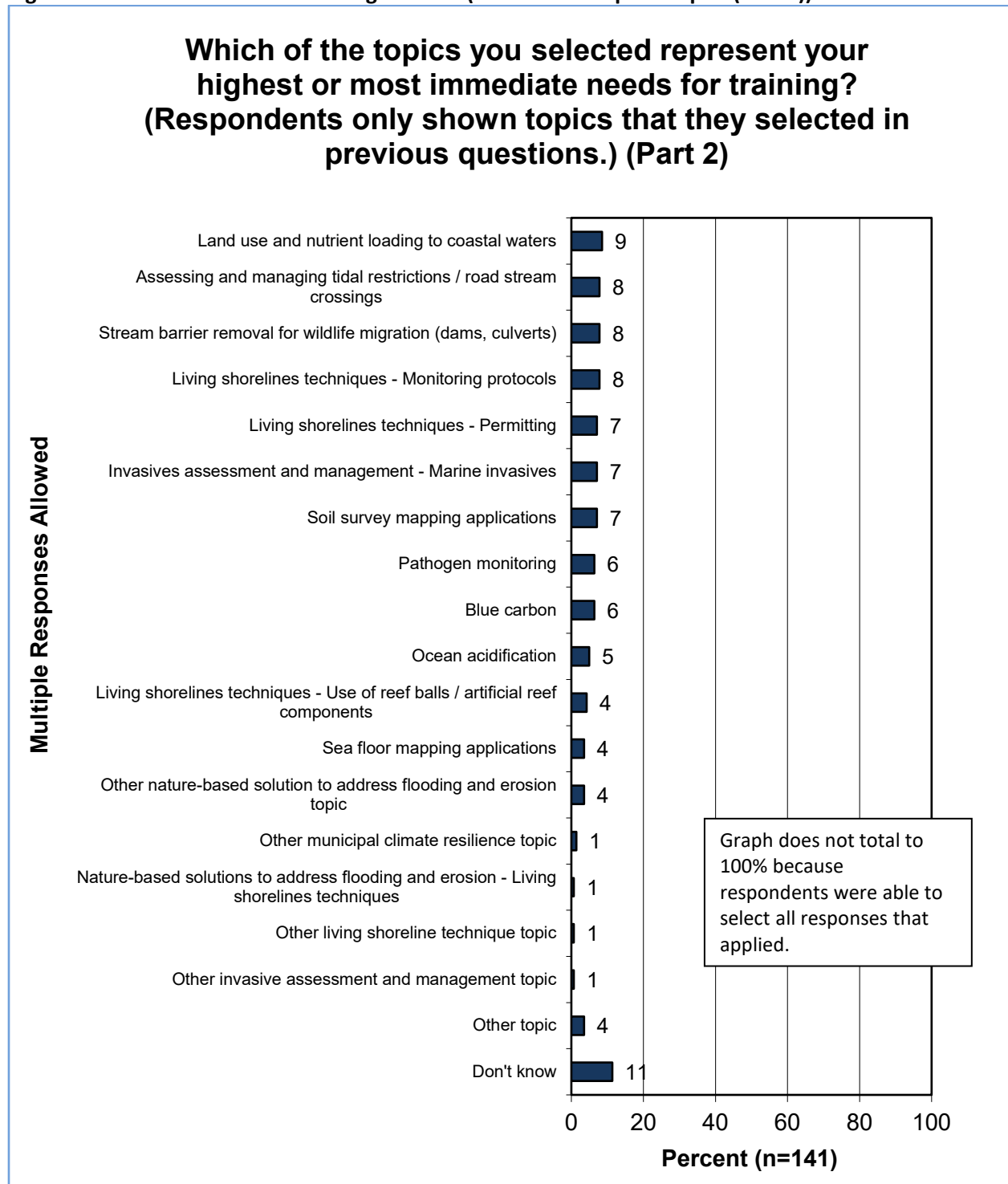


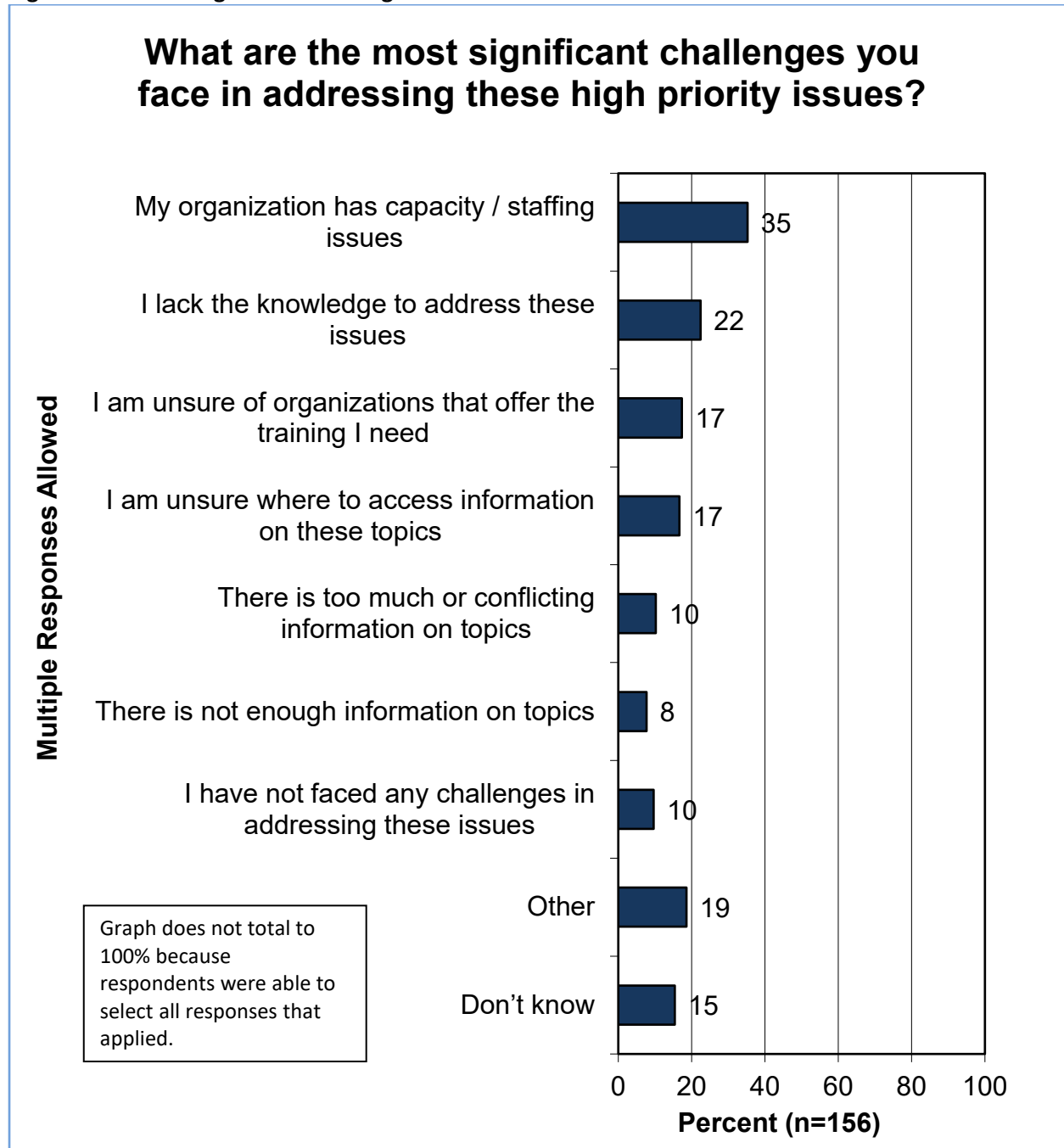
Figure 2-23: Most Immediate Training Needs 3 (With Follow-Up Subtopics (Part 2))



Following the listed topics, respondents were asked to provide any additional topics that are important to them, in a series of open-ended questions. Respondents could provide up to 10 additional topics, starting with their highest priority. The full list of responses is shown in Appendix B.

From a provided list, respondents selected their most significant challenges in addressing their high priority issues. The most frequent response was capacity or staffing issues at their organization (35% selected this), followed by lack of knowledge (22%), uncertainty as to which organizations offer the needed training (17%), and uncertainty as to where to access information on the topics (17%). The full list is shown.

Figure 2-24: Challenges in Addressing Issues

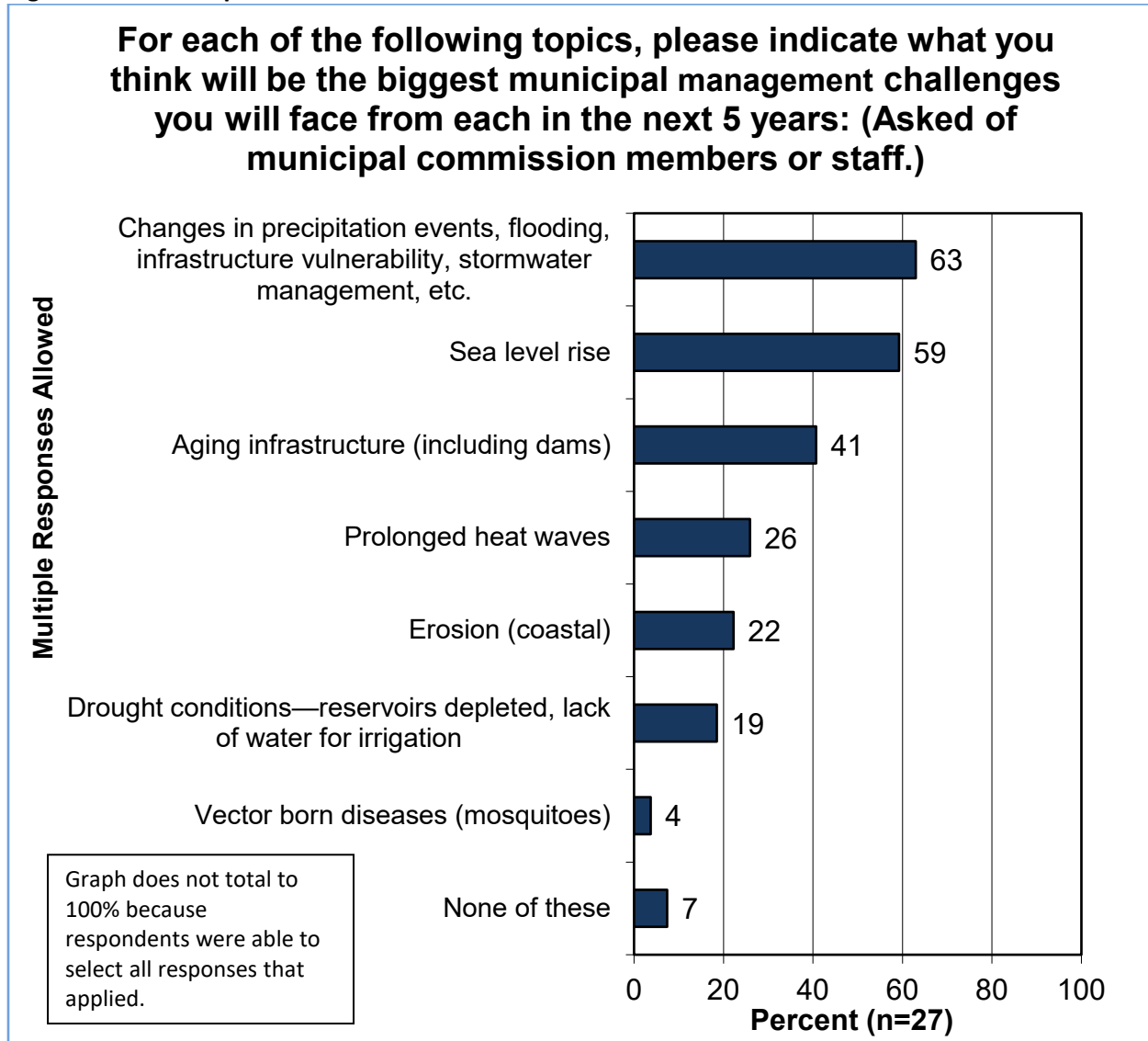


<b>Table 2-6. Verbatim Responses to Challenges in Addressing Priority Issues</b>	
<b>What are the most significant challenges you face in addressing these high priority issues? (Write-in "Other" responses)</b>	
Nonprofit staff	Time/money.
	It takes a collaborative army sometimes.
	Much of restoration is site-specific so applicability of trainings can be challenging.
	There is always more to learn!
	I cannot speak for my organization on what is needed for these issues - it would come mostly from our facilities team.
	I am answering with training that could help local governments complete our actions.
	Overcoming barriers at the local, state and federal policy level.
	Limited funding.
State agency staff	Lack of a sense of urgency/relevancy.
	Need for continuous education on the high priority issues.
	There's always more to learn, and I want to stay up to date with best science and practices.
	For community engagement, it varies but mostly local contacts and hosts for public sessions and getting people to attend.
	Lack of funding.
	Funding.
Municipal staff	I am new and so is my position and division.
Academia	Don't want it to be only doom and gloom - I would like to offer some positive actions students can take.
	Crisis fatigue of relevant audiences.
	CT SG and the CTNERR really need to work together on these issues.
	Permitting and regulation around these issues.
Volunteer for conservation organization	This is not my academic/professional area of expertise. I am trying to learn as much as I can in order to be most effective in my role.
Consultant	How can we break the mold of societal expectations and 'business as usual' to ensure a safe and secure future for humans - working with nature rather than fighting her fluidity and ever-changing and unpredictable direction? There's really no going back.
	I have taught these subjects since the early 1970s. [redacted] The challenge for any researcher/teacher is keeping up with the topic. A way for the env. educators to peer consult with respect to preservation.
Federal agency staff	More research is needed on these topics.
Nonprofit staff / Regional agency / organization staff	I am excited to identify projects to support these issues.
Municipal staff / Elected or appointed official	Educating the public.
Volunteer for conservation organization / Consultant	Case studies on project costs.
	Funding and all the support are focused on coastal areas, not inland cities.

## MUNICIPAL ISSUES

From a provided list, municipal respondents were asked to indicate their biggest municipal challenges in the next 5 years. As a reminder, the survey question addressed in Figure 2-25 was only asked of staff focused at the municipal level. The top responses were flooding or stormwater management (63% selected this), sea level rise (59%), and aging infrastructure such as dams (41%). Also, about a quarter to a fifth of them selected prolonged heat waves, coastal erosion, and drought conditions.

Figure 2-25: Municipal Issues in Next 5 Years



Write-in comments regarding sea level rise: shoreline residences, infrastructure (municipal and residential), and flooding impact to Essex Village.

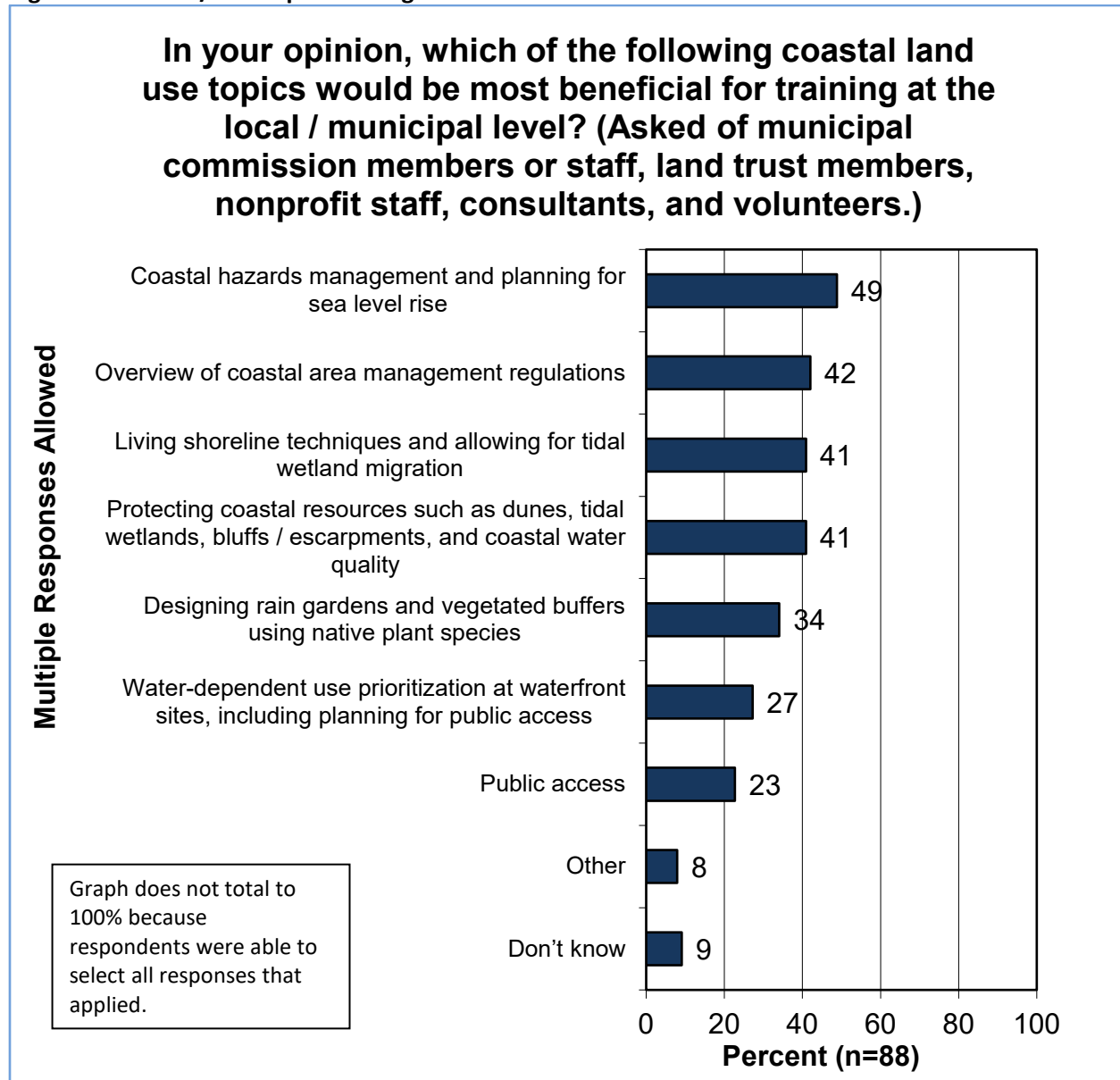
Write-in comments regarding precipitation/flooding: stream overflow and stormwater management.

Write-in comment regarding erosion: loss of property along the Connecticut River.

Write-in comments regarding aging infrastructure: how to pay for fixes.

The next survey question went to municipal committee members or staff, land trust members, nonprofit staff, consultants, and volunteers.

**Figure 2-26: Local/Municipal Training Priorities**



Write-in “other” responses include funding, green infrastructure maintenance, and opportunities for state-of-the-art demonstrations for all listed topics.

The municipal focus in this section of the survey was in part because the CTNERR can partner closely with CT DEEP to provide training on these topics to local audiences. Coastal access is a particular focus of the CT DEEP coastal fellowship project at this time, and results of the following access focused questions will be shared with CT DEEP to help guide this fellowship project.

Public access is another focal topic of CT DEEP. Among the respondents who indicated that public access would be a beneficial training program topic, only 15% are satisfied with the amount of coastal public access in the town where they work (Figure 2-27).

Also among this group, 41% say that there are barriers to planning for new access sites in their community, and 36% say there are barriers to using existing access sites (respondents could select both options), as shown in Figure 2-28. Only 5% say there are no barriers to either.

**Figure 2-27: Satisfaction with Coastal Access**

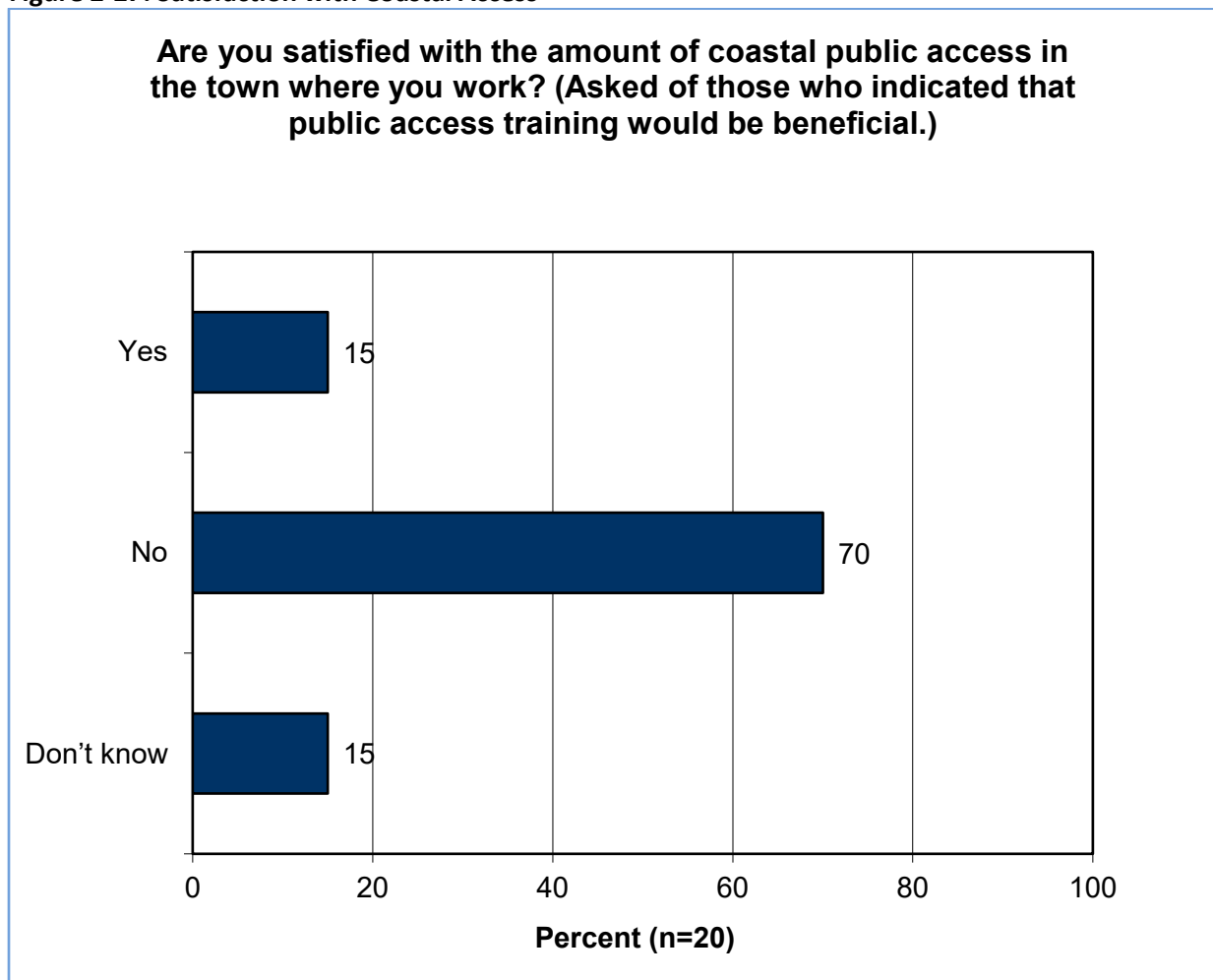
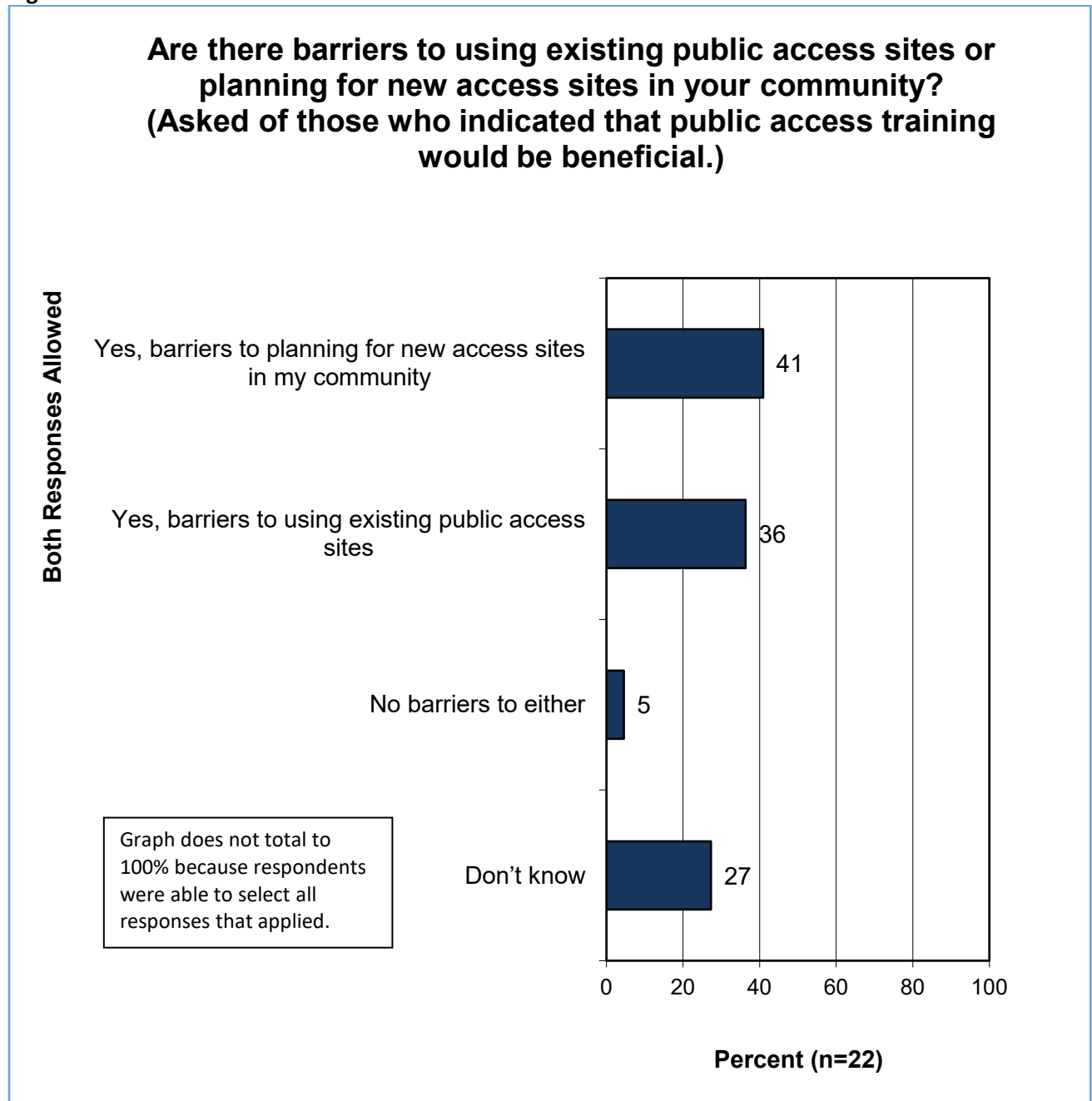


Figure 2-28: Barriers to Public Access



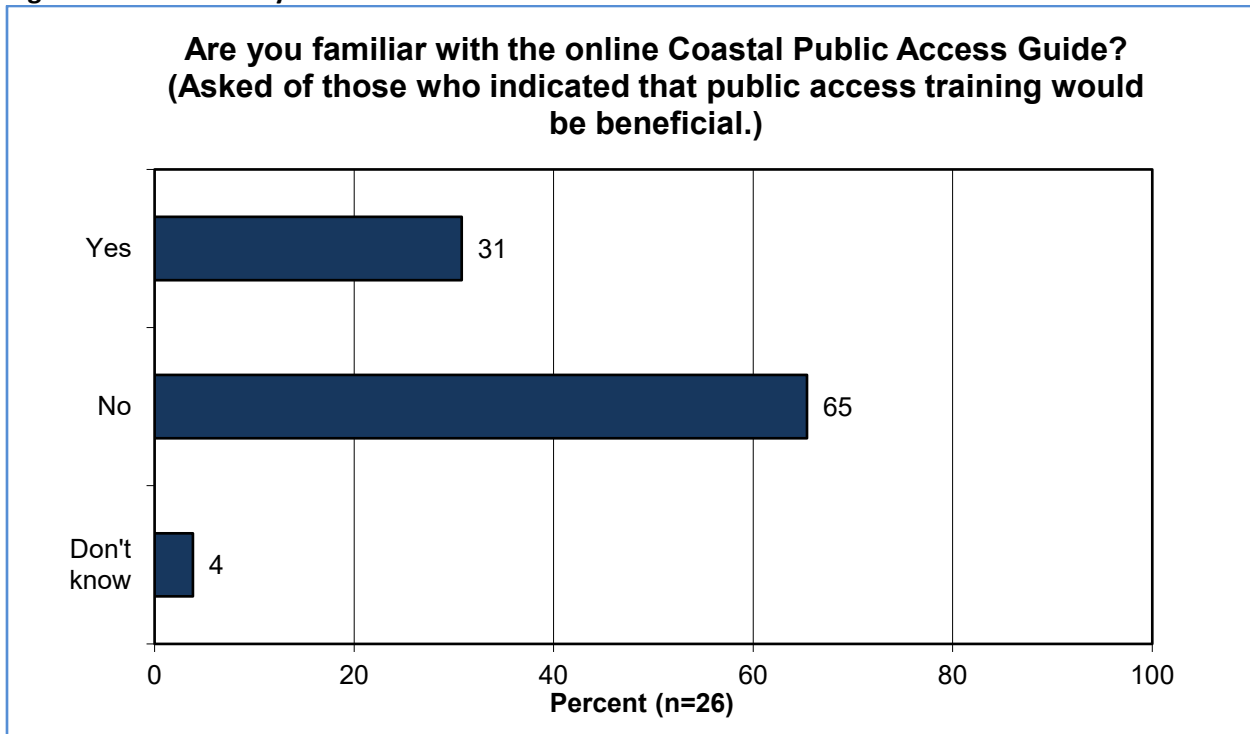
Tables 2-7 and 2-8 show verbatim responses regarding the barriers to planning for new coastal public access sites and to using existing ones.

<b>Table 2-7. Verbatim Responses to Barriers to Public Access (New Access Sites)</b>	
<b>Are there barriers to using existing public access sites or planning for new access sites in your community? (Among those who responded, "Yes, barriers to planning for new access sites in my community.")</b>	
Nonprofit staff	Legacy of industrialization means most of the waterfront is cut off from public access; The city only seriously talks about redevelopment in ways that would gentrify and displace current residents.
	Community resistance.
Municipal staff	Funding and regulations.
Volunteer for conservation organization	The area is already well developed. Retreats in areas of flooding, rather than rebuilding after floods, do not seem to be considered.
Consultant	Insufficient forethought in planning/design.
Volunteer for conservation organization / Land trust committee member	NIMBY ism.

<b>Table 2-8. Verbatim Responses to Barriers to Public Access (Existing Access Sites)</b>	
<b>Are there barriers to using existing public access sites or planning for new access sites in your community? (Among those who responded, "Yes, barriers to using existing public access sites.")</b>	
Nonprofit staff	Private property.
	The best public access sites are not easily found or accessed by those without a car; those that are walkable tend to be in more affluent neighborhoods.
	Fee structure for access.
Municipal staff	Unaware of sites.
Consultant	Nonresident beach restrictions.
Municipal staff / Volunteer for conservation organization / Land trust committee member	Abutting homeowners blocking and preventing access.
Volunteer for conservation organization / Consultant / Municipal commission (volunteer)	Mostly in Westerly, RI but have also seen new property owners coming into Stonington & Groton blocking access to kayak launches and paths to coast.
Volunteer for conservation organization / Land trust committee member	Missing signs, blocked access.

Among those who indicated that public access training would be beneficial, 31% are familiar with the online Coastal Public Access Guide.

**Figure 2-29: Familiarity with Coastal Public Access Guide**



Among those who are familiar with the guide, three had recommendations for improving it: check with town staff to review any changes or upgrades to locations, add more sites for coastal access, and develop a website or place where people can upload pictures of violations or weather conditions.

Finally, among respondents who indicated that public access training would be beneficial, four would like information or training on using the guide and two would not (others did not respond).

## SKILL DEVELOPMENT NEEDS

From a list of skill-based training topics, respondents most frequently said the topics of most benefit would be economic valuation, building trust with communities, and respondent engagement—all selected by 30% or more of respondents. Meanwhile, about a quarter to a fifth selected project management, meeting facilitation, survey design, and leading focus groups.

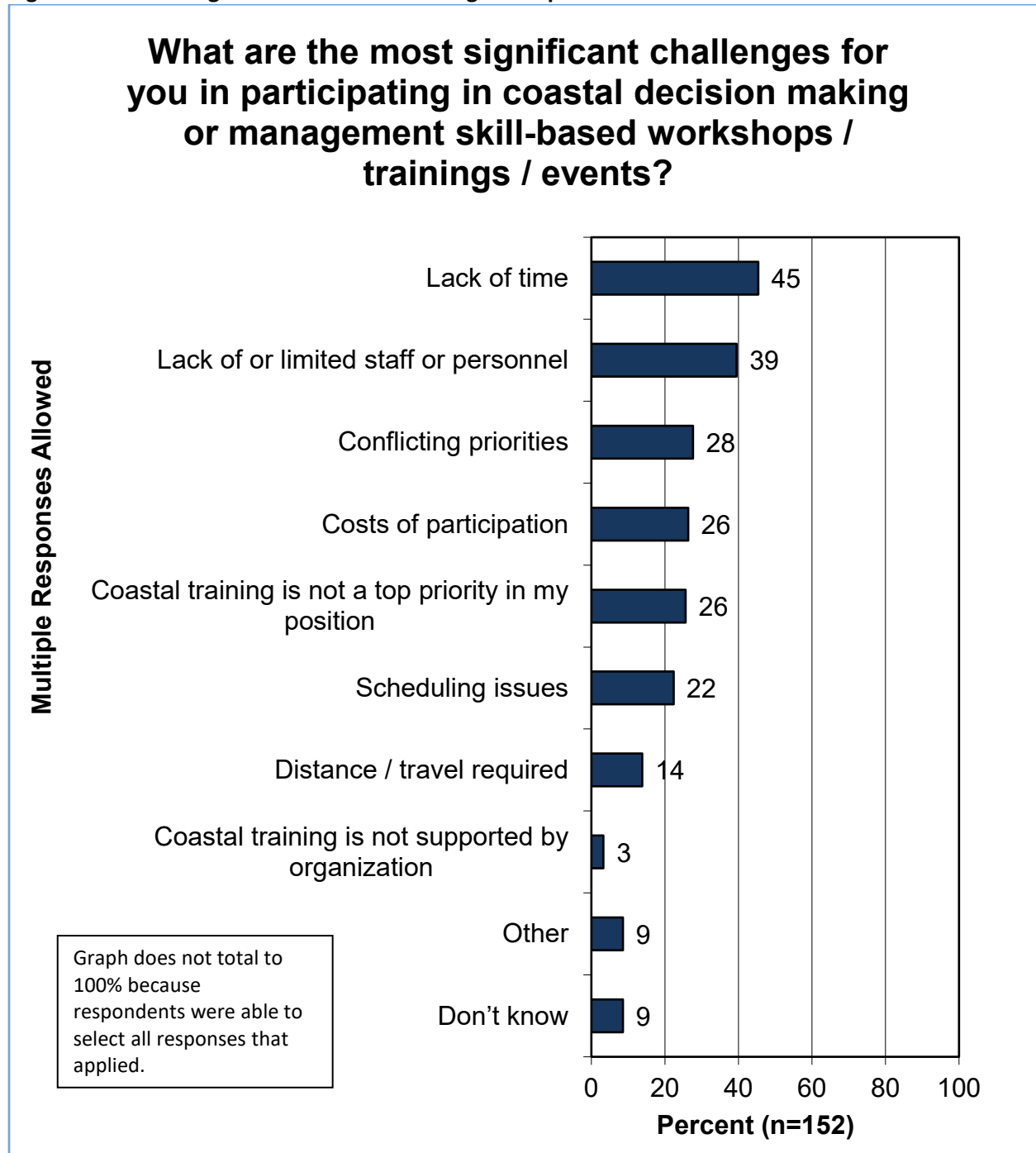
Figure 2-30: Skill-Based Trainings Needs



Table 2-9. Verbatim Responses to Skill-Based Training Interest	
Which type of skill-based training, if any, would be most beneficial to you in your current position? (Write-in "Other" responses)	
Nonprofit staff	We can always learn more.
State agency staff	Keeping updated and knowledgeable on highest priorities.
Academia	Engagement with regulators
	CT SG is also NOAA funded and partners with NOAA on many activities and trainings.
	Teacher training - how to teach students about certain concepts and skills.
	Guest lectures - lab and field.
Consultant	Addressing information diffusion across communities.
	Setting a new direction with reasonable and feasible social-ecological outcomes. The RAD paradigm in application - when to Resist; when to Accept, when to Direct (instead of continued resistance and direction). Our office in private contracts offers most of these. It's always good to see the skill set extended. I suspect that each community/municipality has its own needs and opportunities that have to be sorted by each regional COG. CT has many good examples.
Municipal staff / Elected or appointed official	Educating public.

Lack of time and limited personnel are the most common challenges for participation in skill-based training, selected by 45% and 39% of respondents, respectively, from the list. A secondary tier of challenges, selected by about a quarter of respondents, includes conflicting priorities, costs of participation, and scheduling issues. Also, about a quarter said the coastal training is not a priority in their position. A tabulation of the “other” responses is in Table 2-10.

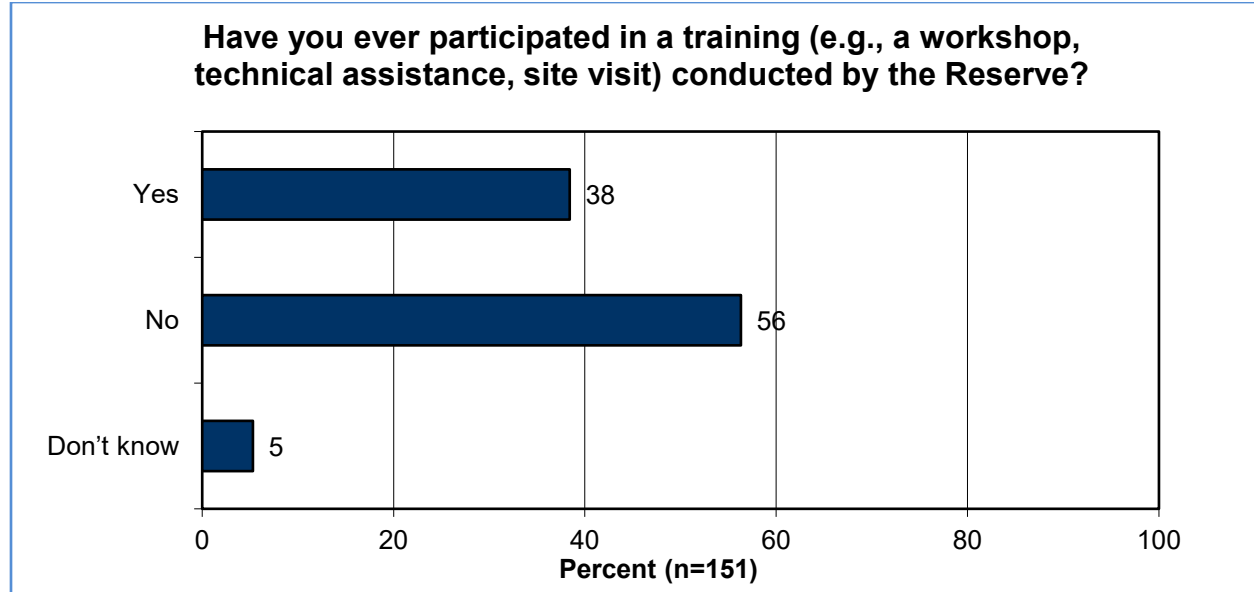
Figure 2-31: Challenges for Skill-Based Training Participation



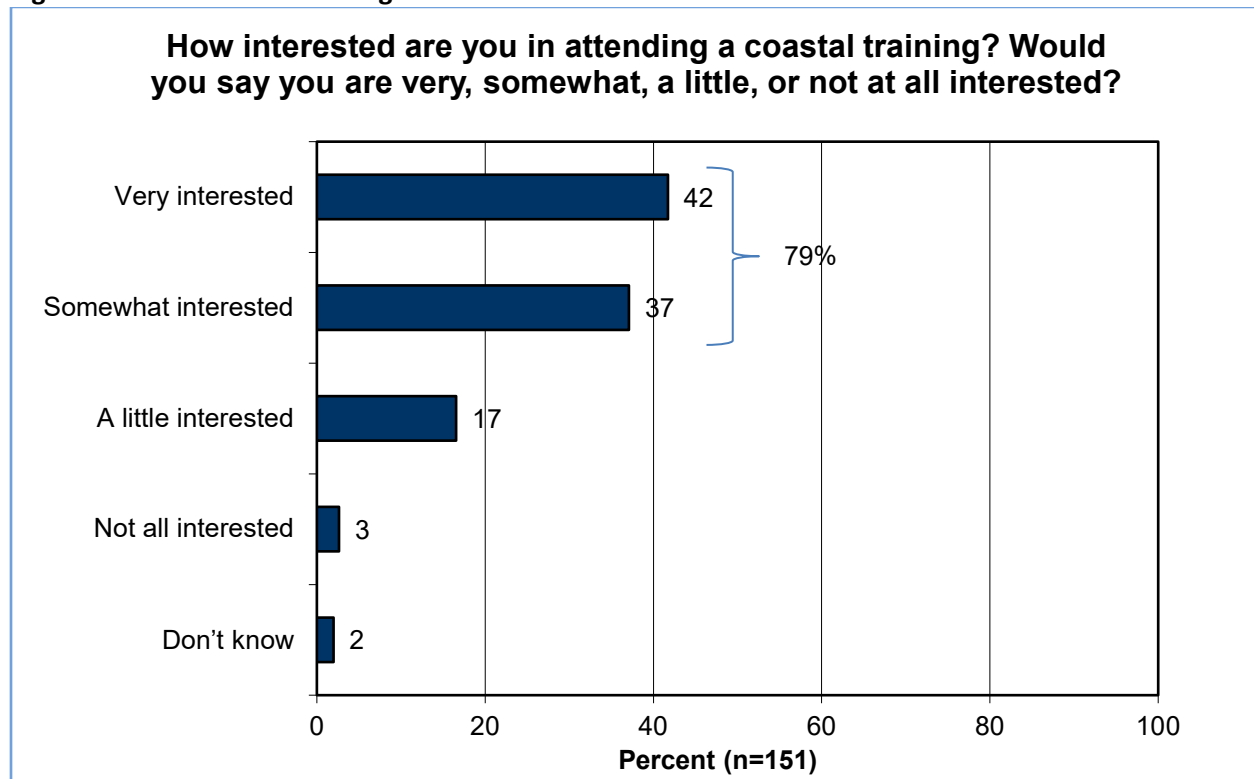
<b>Table 2-10. Verbatim Responses to Challenges in Skill-Based Training Participation</b>	
<b>What are the most significant challenges for you in participating in coastal decision making or management skill-based workshops / trainings / events? (Write-in "Other" responses)</b>	
Nonprofit staff	I need to make the time! Funding!!
State agency staff	Travel bans. None- I would arrange schedules to allow participation in events of interest and usefulness to me. Managing grants & contracts.
Municipal staff	My organization is open to me participating in as many trainings as possible.
Academia	No challenges.
Consultant	Human intransigence - locked in the past model of 'Humans Despite Nature' (Mace, 2013) where we can have it both ways instead of 'Humans and Nature', where we'd likely end up in a compromise of human and natural infrastructure.
Nonprofit staff / Regional agency / organization staff	Decision makers are primarily at the federal, state and local level.
Volunteer for conservation organization / Consultant	Shortage of projects to apply the training on within 6 months of the training.
Volunteer for conservation organization / Land trust committee member	As a volunteer I have limited ability to spend on workshops and follow ups.

Over a third of respondents (38%) have participated in a training program conducted by the Reserve. Meanwhile, most respondents (79%) are *very* interested or *somewhat* interested in attending a coastal training program.

**Figure 2-32: Experience with Training**



**Figure 2-33: Interest in Training**



Among those who are not *very* interested in receiving training, the top reasons were lack of time (32% of this group selected this), that their coastal decision-making responsibilities do not require it (29%), lack of need (18%), and lack of funds (11%). Write-in “other” responses are shown in the tabulation that follows.

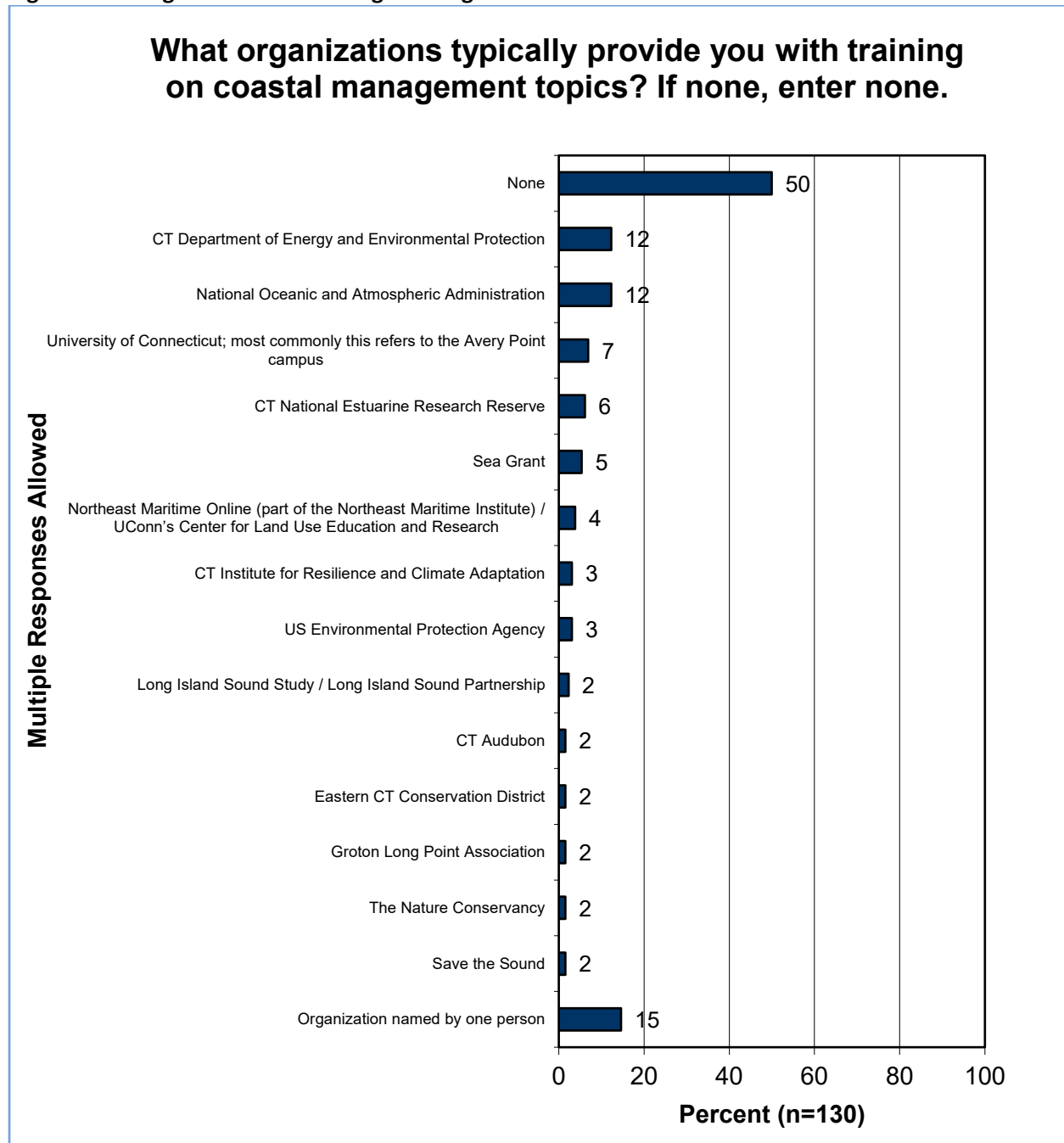
Figure 2-34: Reasons for Limited Interest in Trainings



<b>Table 2-11. Verbatim Responses to Reasons for Limited Interest in Trainings</b>	
<b>What are the main reasons you are NOT more interested in receiving coastal training? (Write-in "Other" responses)</b>	
Nonprofit staff	Not necessarily related to our work.
	Not directly involved in planning/advising on coastal projects.
	Time.
	I would like to know the topic first.
	I have not seen coastal trainings that are directly relevant to my projects.
State agency staff	It depends on the training topic.
	It will be topic and capacity willing.
	Coastal training is not a priority for my role.
	Length of training.
	Not associated with current work.
Academia	It would depend on what training topic was and whether or not it was relevant to my position.
	Time is limited.
Consultant	Retiring soon.
	I am 88 years young, much yet to do.
	Others in my company do this type of work.
Federal agency staff	It depends on the cost, duration, location and time of year. Winter is easier because work is slower.
	Hard to say what is supported right now.
Municipal staff / Elected or appointed official	Coastal issues are not the main focus of my agency's programs; however, they are very related to the land-based resource concerns we are most focused on.
Volunteer for conservation organization / Land trust committee member	Other priorities.
	Time constraints.

When asked in an open-ended question who typically provides training on coastal management topics, half of respondents (50%) say that they do not typically receive training on coastal management topics. Among those who entered a specific provider of training, the Connecticut Department of Energy and Environmental Protection (CT DEEP) and the National Oceanic and Atmospheric Administration (NOAA) were most commonly named as the organizations that provide the training (each named by 12% of respondents). The full list is shown.

Figure 2-35: Organizations Providing Training



Finally in this chapter, respondents were asked, in an open-ended question, if there are *emerging* coastal issues that the Reserve should consider for future trainings or education. The full list of responses is presented in Appendix B.

## TRAINING PREFERENCES

Respondents most often said they are willing to travel up to an hour for a training event (51% selected this). Also, regarding the type of training format, they are much more interested in a field trip (49%) compared to in-person classroom training (14%) or a virtual event (18%).

Figure 2-36: Travel for Training Events

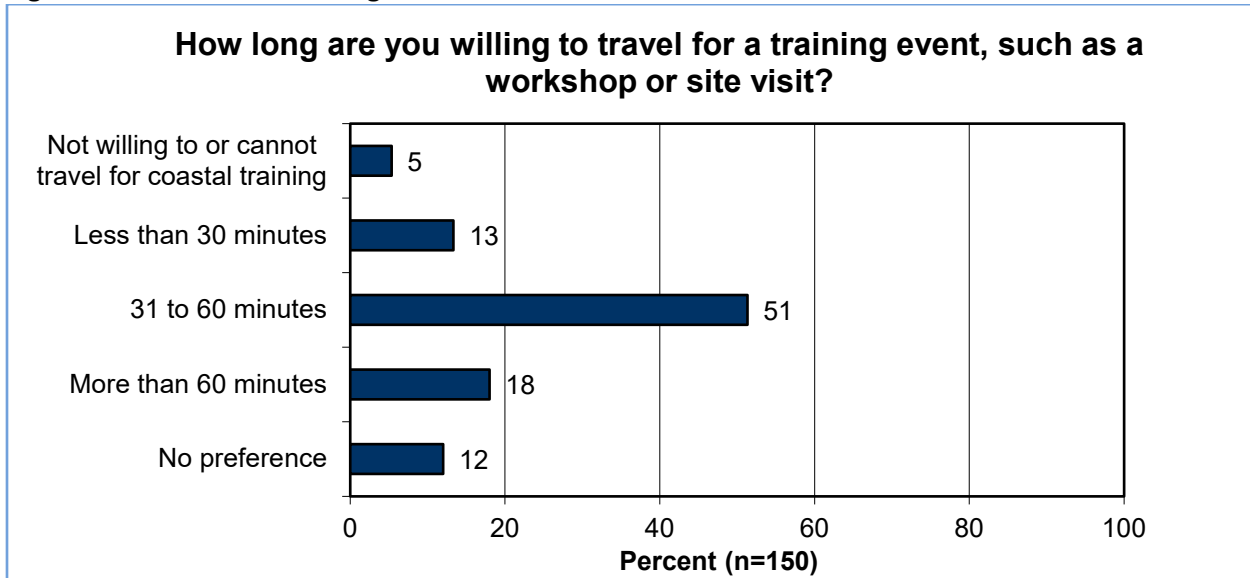
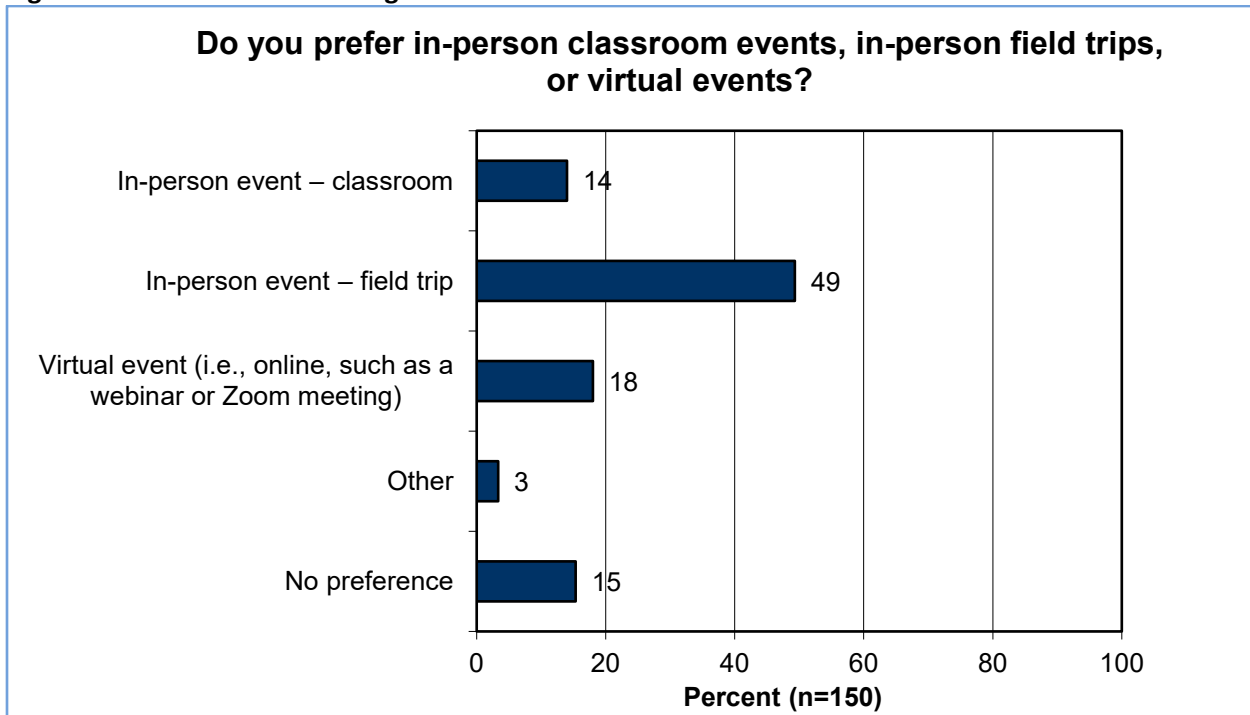


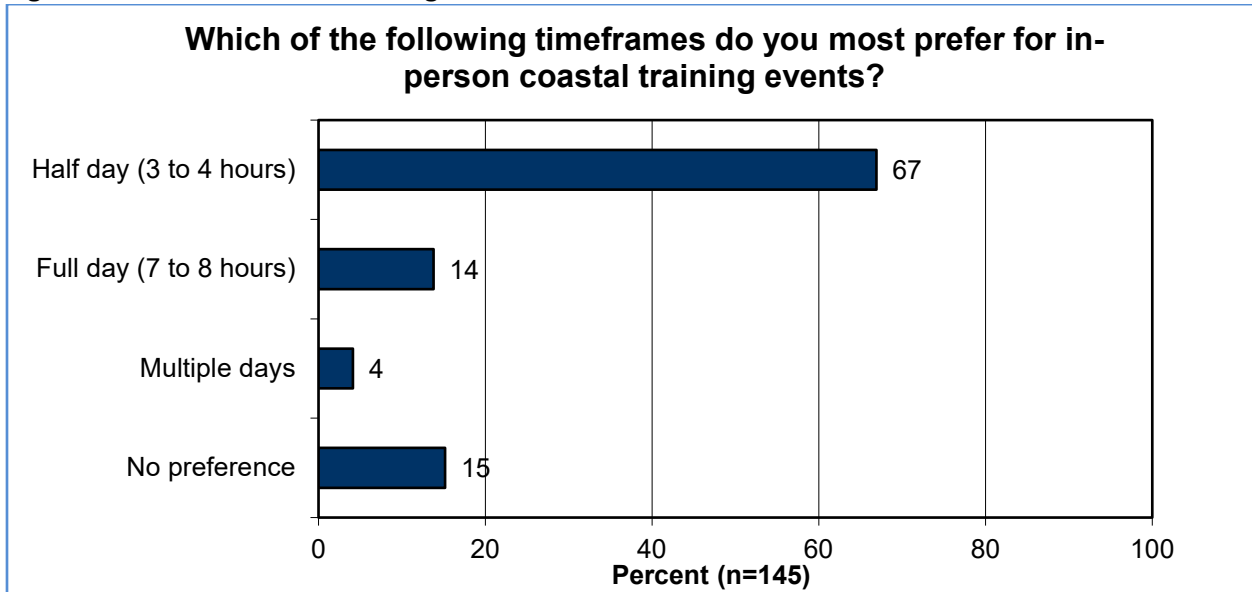
Figure 2-37: Location of Training Events



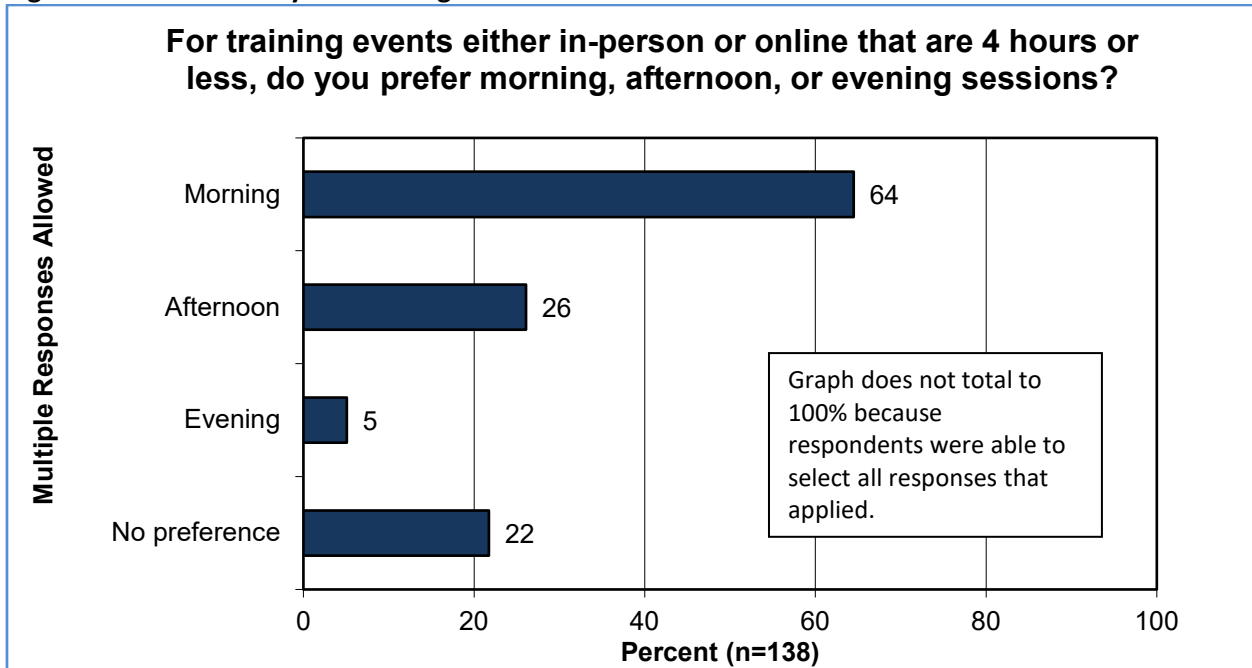
Two thirds of respondents prefer a half-day timeframe for in-person coastal training events.

For training events of 4 hours or less, respondents most often prefer morning sessions (64% do), followed by afternoons (26%) and evenings (5%). However, 22% have no preference.

**Figure 2-38: Timeframe for Training Events**



**Figure 2-39: Time of Day for Training Events**



There is more preference for having coastal training events in the fall or winter compared to the spring or summer. However, no preference is the most common response (43%).

Figure 2-40: Season for Training Events

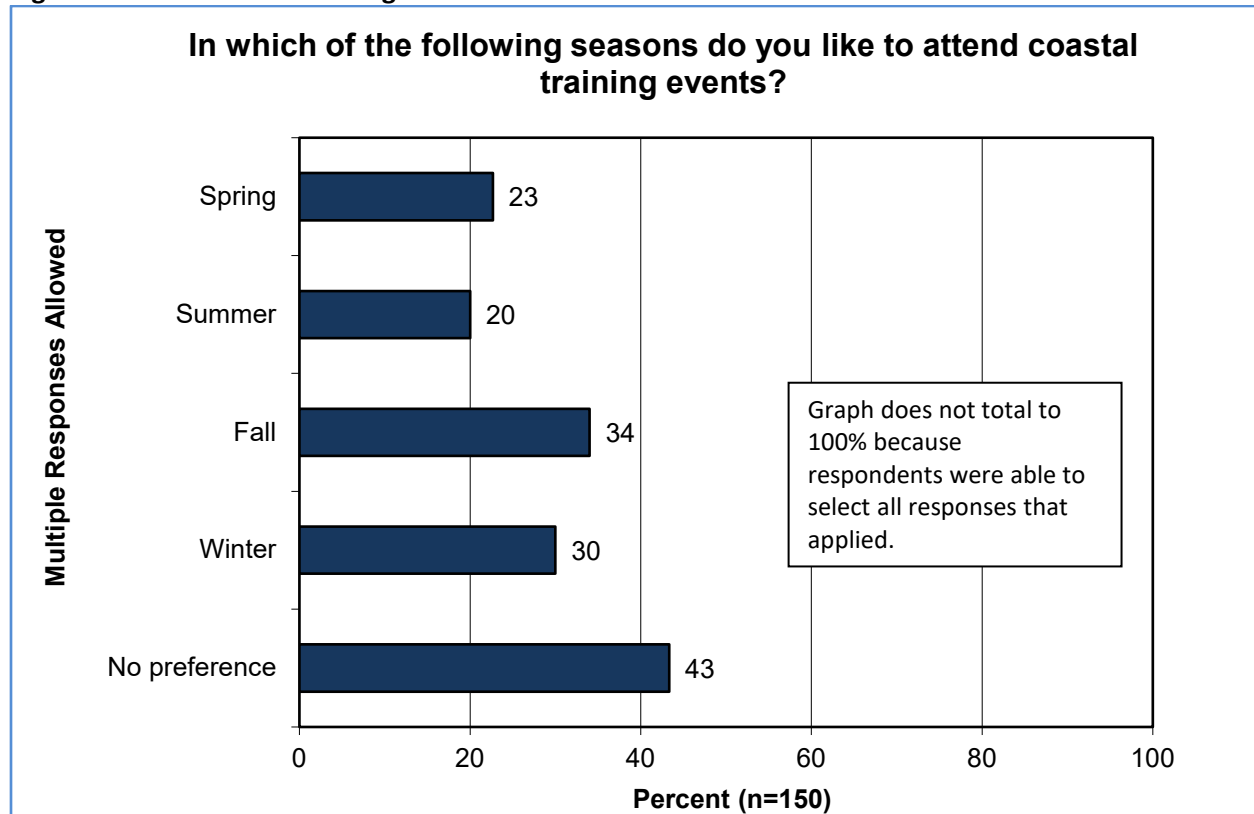
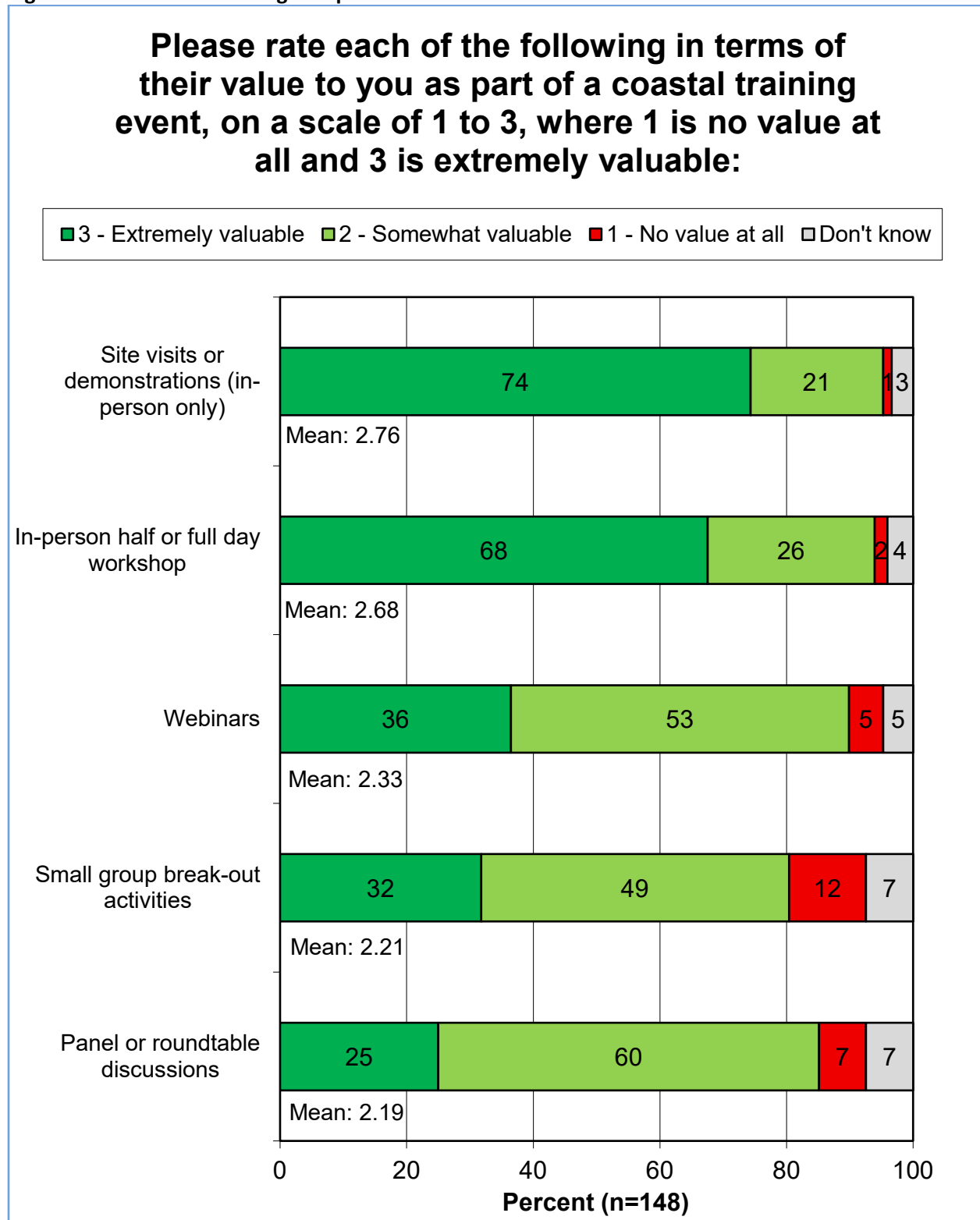


Figure 2-41 shows the ratings of 5 aspects of coastal training. Respondents were asked to rate the value of each aspect, on a scale of 1 to 3, where 1 is *no value at all* and 3 is *extremely valuable*. The graph is presented in descending order of *extremely valuable* percentages, and the mean rating is shown below each bar.

The top-rated aspects are site visits or demonstrations (mean rating of 2.76) and in-person half or full day workshops (2.68).

Figure 2-41: Value of Training Components



Food/drinks, monetary stipends, professional or education credits, and transportation top the list of incentives that would encourage respondents to attend training events. On the other hand, about a third (32%) stated that none of the listed incentives would encourage them to attend training.

Figure 2-42: Incentives for Training Events

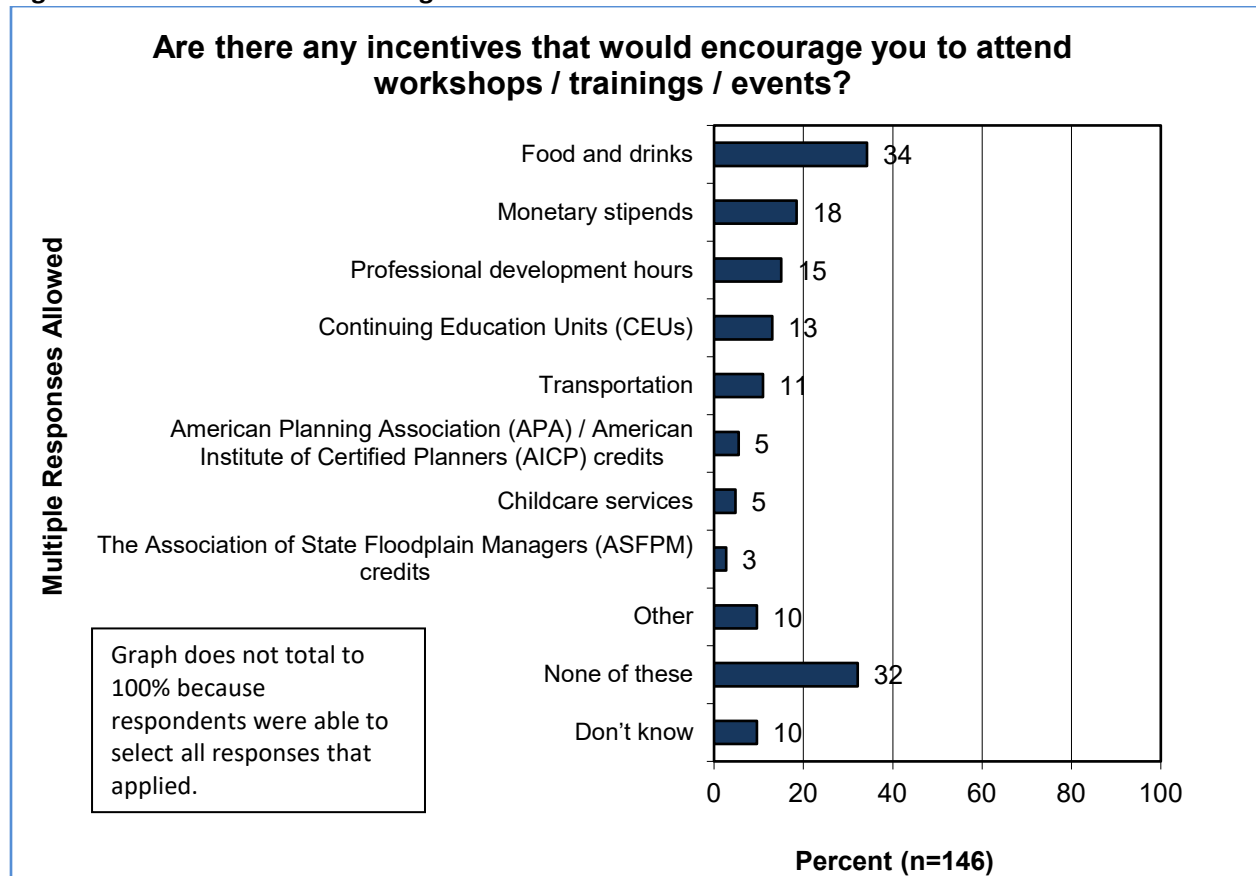


Table 2-12. Verbatim Responses to Incentives for Training Events	
Are there any incentives that would encourage you to attend workshops / trainings / events? (Write-in "Other" responses)	
Nonprofit staff	CEUs/Credits for SER's CERP.
State agency staff	Incentives aren't necessary.
	No-cost / registration fee.
	We don't need credits, and won't accept gifts.
	Content.
	Multiple dates/times to choose from. Ex, training will be offered this Tuesday morning, and again on this Thursday afternoon.
Consultant	State of art info.
	LEP credit.
Land trust committee member	Local interest.
Nonprofit staff / Regional agency / organization staff	Topics of my interest.
Volunteer for conservation organization / Land trust committee member	Interesting field sites.

In an open-ended question, respondents were asked if there are any other types of events or training methods they would like to have included in their training components. Responses are shown in Appendix B.

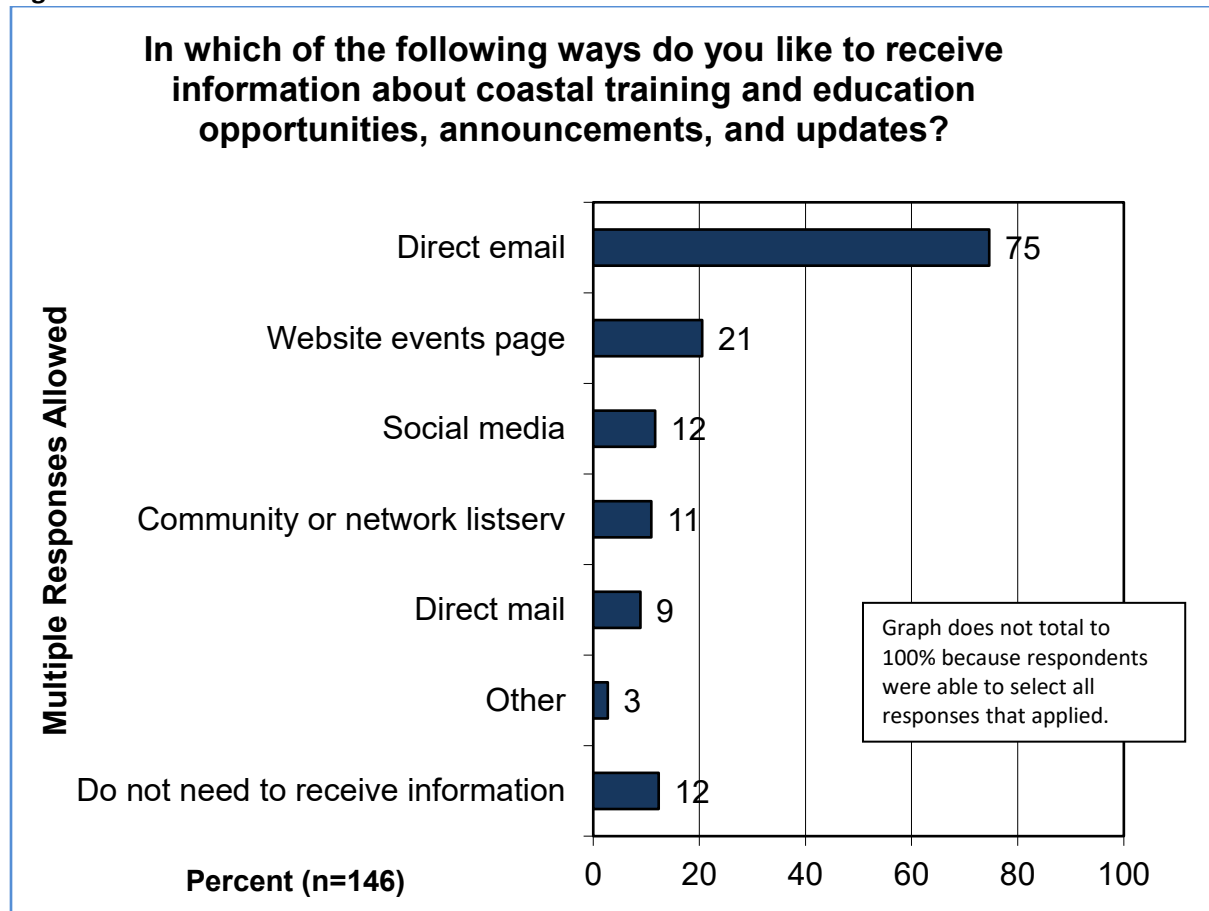
An open-ended question asked if respondents' agencies or organizations could benefit from services or materials in another language. Several respondents said Spanish, and a few other languages were mentioned by one or two people (Creole, Portuguese, and Chinese). One respondent suggested that printed materials were irrelevant, and AI would be more helpful.

In the final open-ended question of this chapter, respondents were asked if there is anything else that would make them more likely to participate in training or education through the Reserve Training Program in the next 2 years. Responses are in Appendix B.

## PREFERRED COMMUNICATIONS FROM CTNERR

By far, direct email is respondents' preferred medium of receiving information about coastal training and education opportunities. Respondents were offered the opportunity to enter their contact information for any selected communication preference.

Figure 2-43: Method of Communication Preference



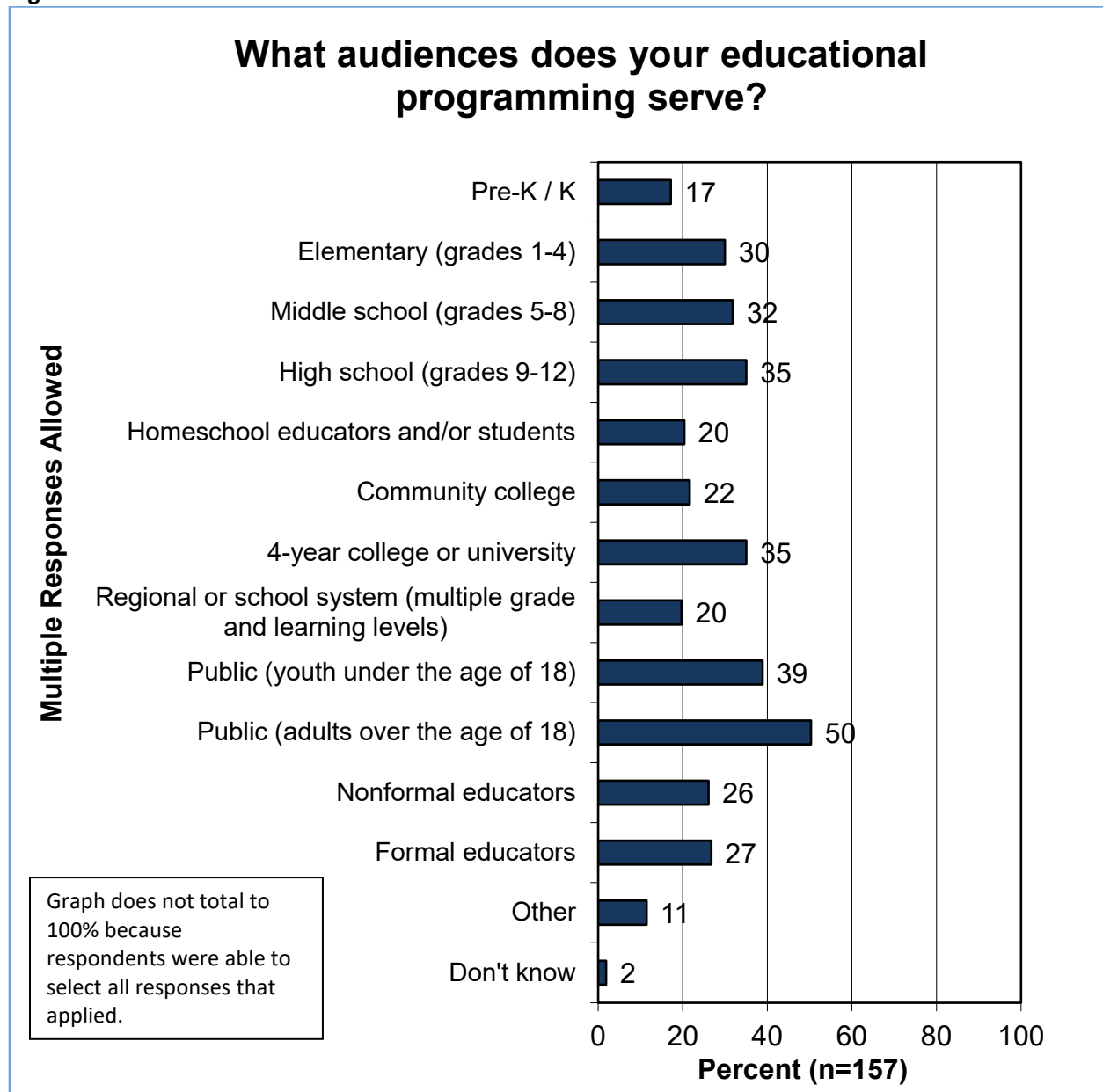
An open-ended question asked respondents if they see opportunities for collaboration between the Reserve and their agency or organization. The full range of responses is presented in Appendix B.

## EDUCATION MARKET ANALYSIS

This chapter is specific to respondents who indicated that providing education is their primary focus and/or who indicated that the public, formal educators or education institutions, informal educators, or students are the audience that they serve.

First, these respondents were asked which audiences their educational programming serves. The top response is the public (adults), although the graph in Figure 2-44 shows a somewhat balanced distribution among the different grade/class levels.

Figure 2-44: Education Audience



<b>Table 2-13. Verbatim Responses to Education Audience</b>	
<b>What audiences does your educational programming serve? (Write-in "Other" responses)</b>	
Nonprofit staff	Broader scale with more presentations, webinars, and other information sharing over structured academic educational offerings.
	Farm and agricultural-business owners, state and federal staff, nonprofit staff, town staff.
	Local gov't and sustainability teams.
	Conservation practitioners.
	Professionals.
	It varies. Educational programming is not a core part of what we do, but we do provide these opportunities from time to time and have engaged with nearly all of these audiences.
State agency staff	Various audiences but not primary part of our work.
	The Department serves all of these, but I only checked the groups I deal with the most.
	Project and contract dependent, but can include all.
Academia	Postgraduate.
	Most of my work is with formal (pre-service and in-service) and non-formal educators and their students. I also work on education research related to ocean, coastal, and aquatic education as well as evaluation. These areas of expertise were selected over.
Consultant	interpretive signage, site design, publications for all.
Land trust committee member	Land Trust board/staff/volunteers.
Academia / Nonprofit staff	Essentially pre-k through adult.
Nonprofit staff / Regional agency / organization staff	Currently we do not operate educational programs, but we fund educational programs. We also host several undergraduate and graduate level interns.
Elected or appointed official / Municipal staff	Commission members.
Volunteer for conservation organization / Consultant	STEM Programs.

In follow-up, for each audience served by education-related respondents, those respondents were asked to select which topics are provided to the audience (from a list of 10 coastal topics). The following pages present the results in the same order as the preceding question.

Figure 2-45: Education Programs Provided (Pre K/K)

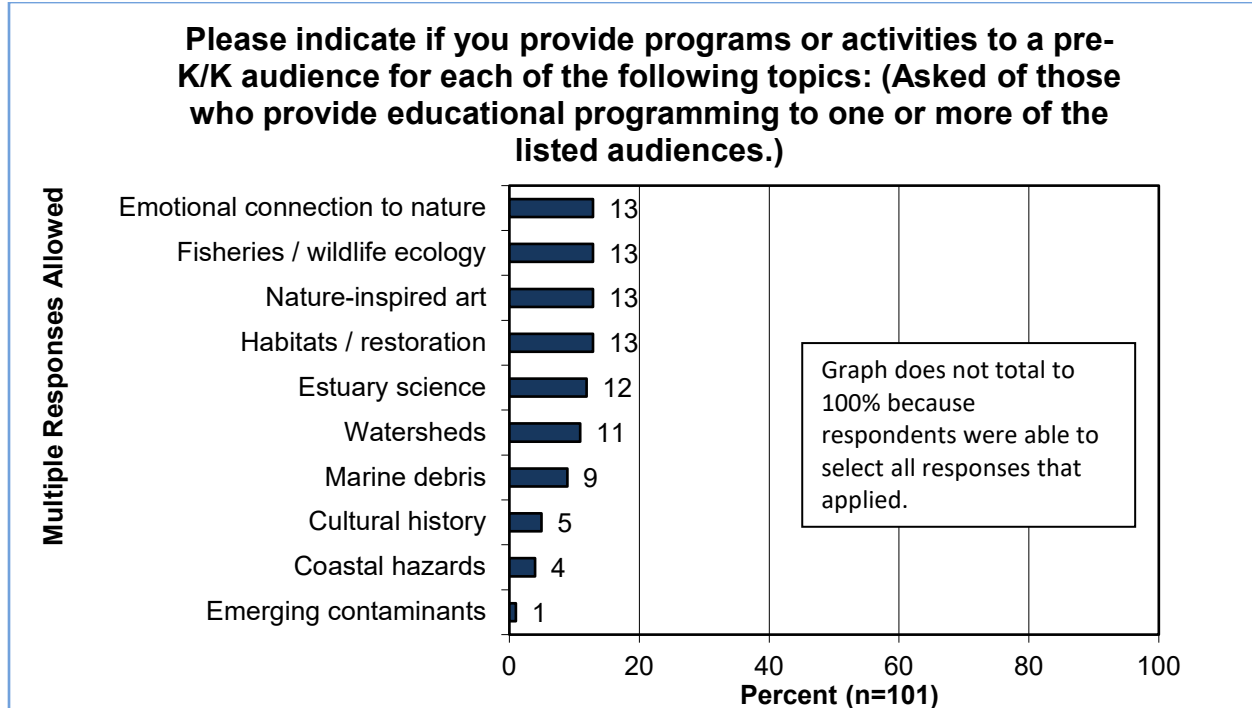


Figure 2-46: Education Programs Provided (Grades 1-4)

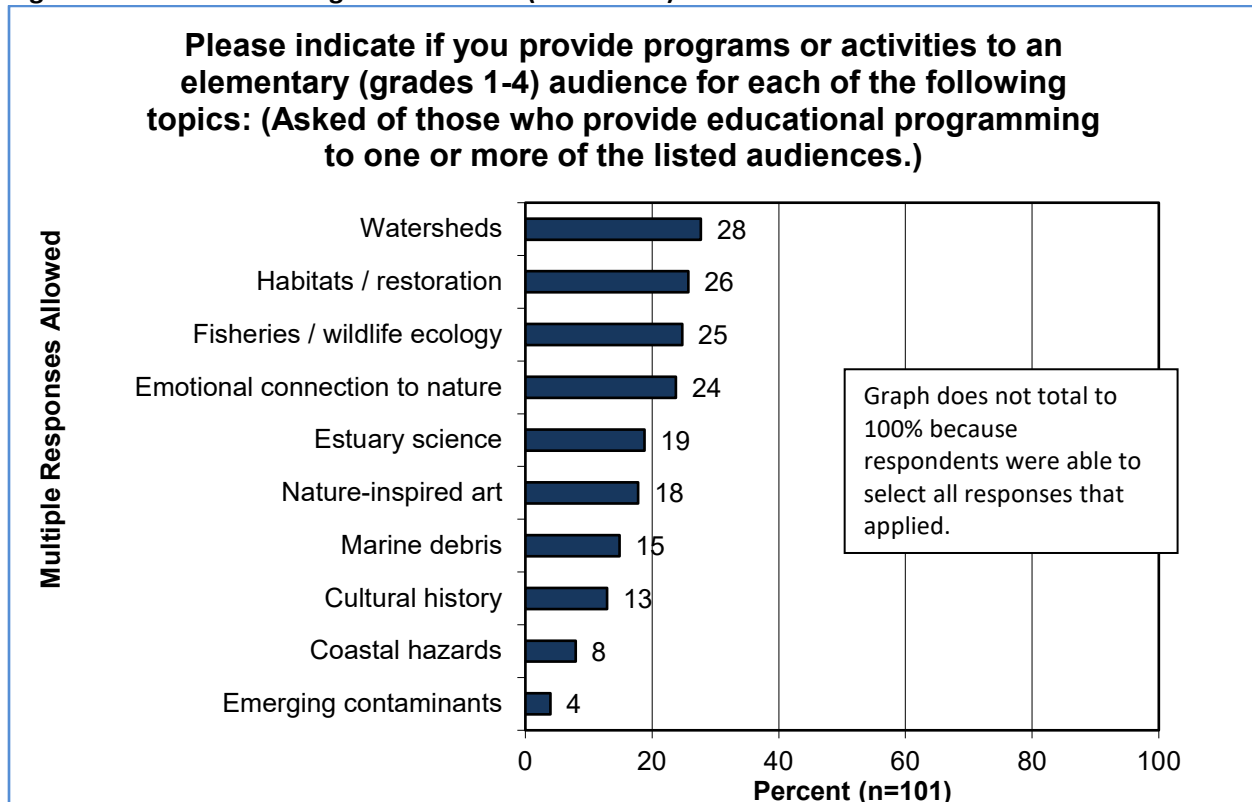


Figure 2-47: Education Programs Provided (Grades 5-8)

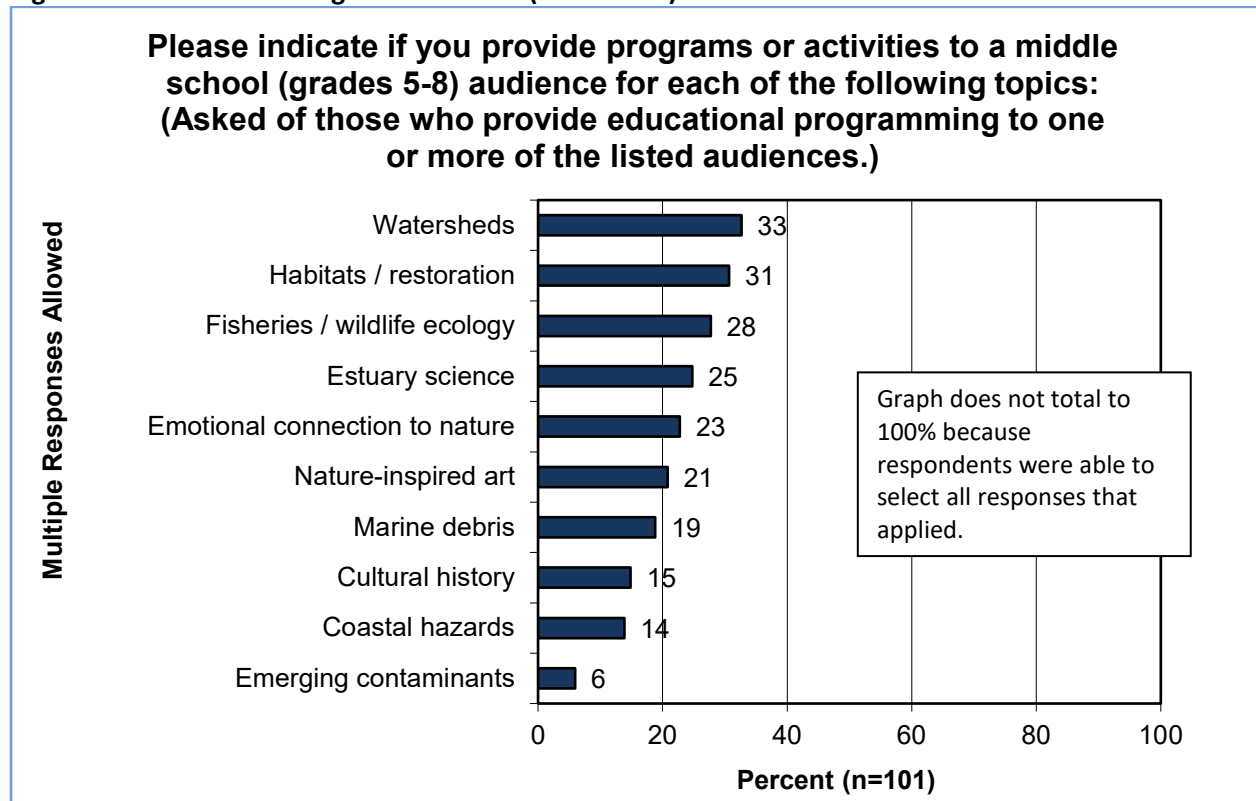


Figure 2-48: Education Programs Provided (Grades 9-12)

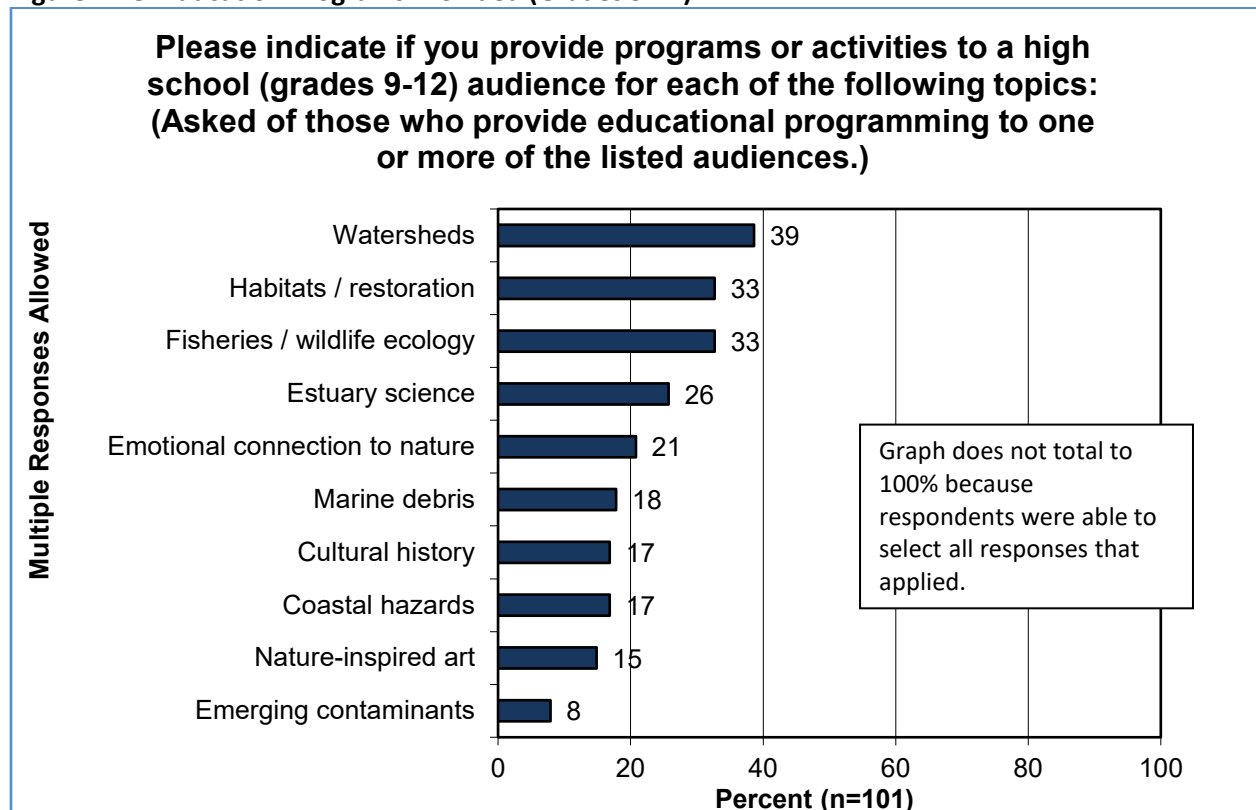


Figure 2-49: Education Programs Provided (Homeschool Educators and Students)

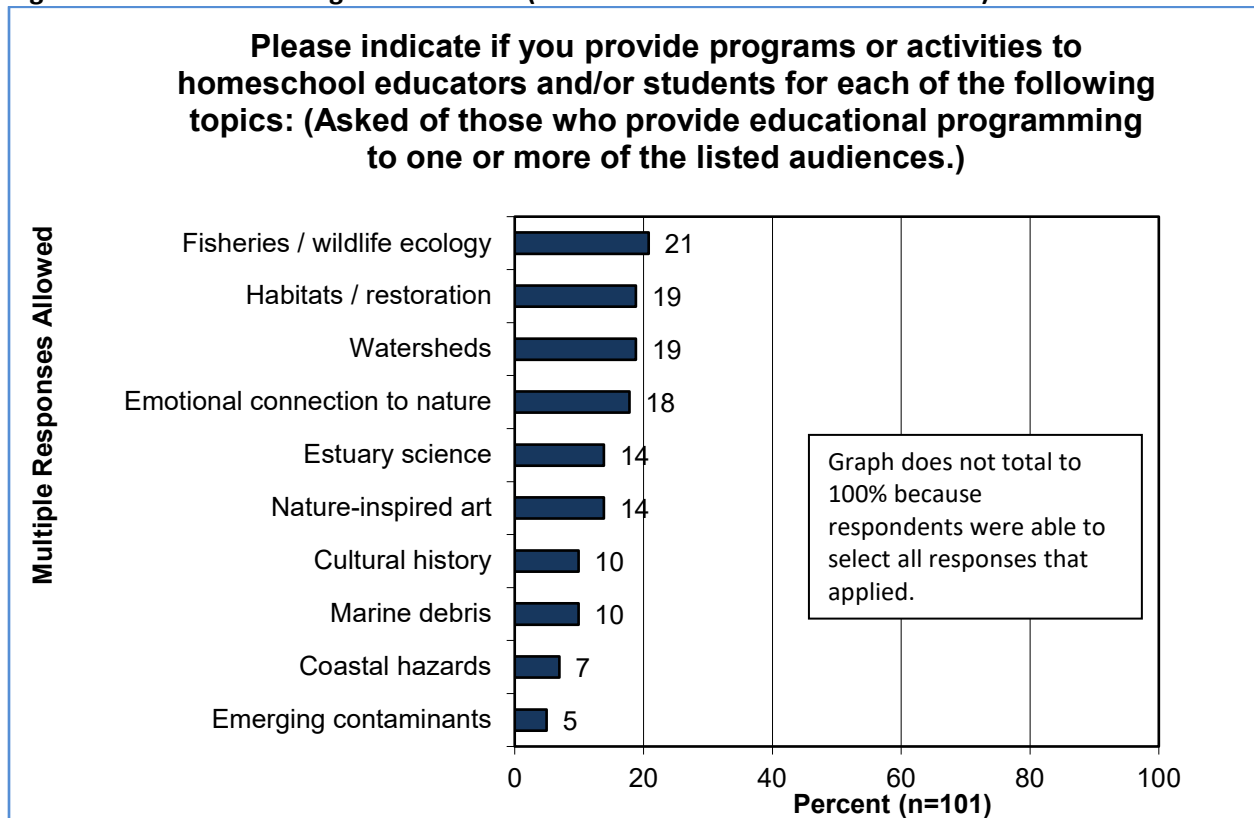


Figure 2-50: Education Programs Provided (Community College)

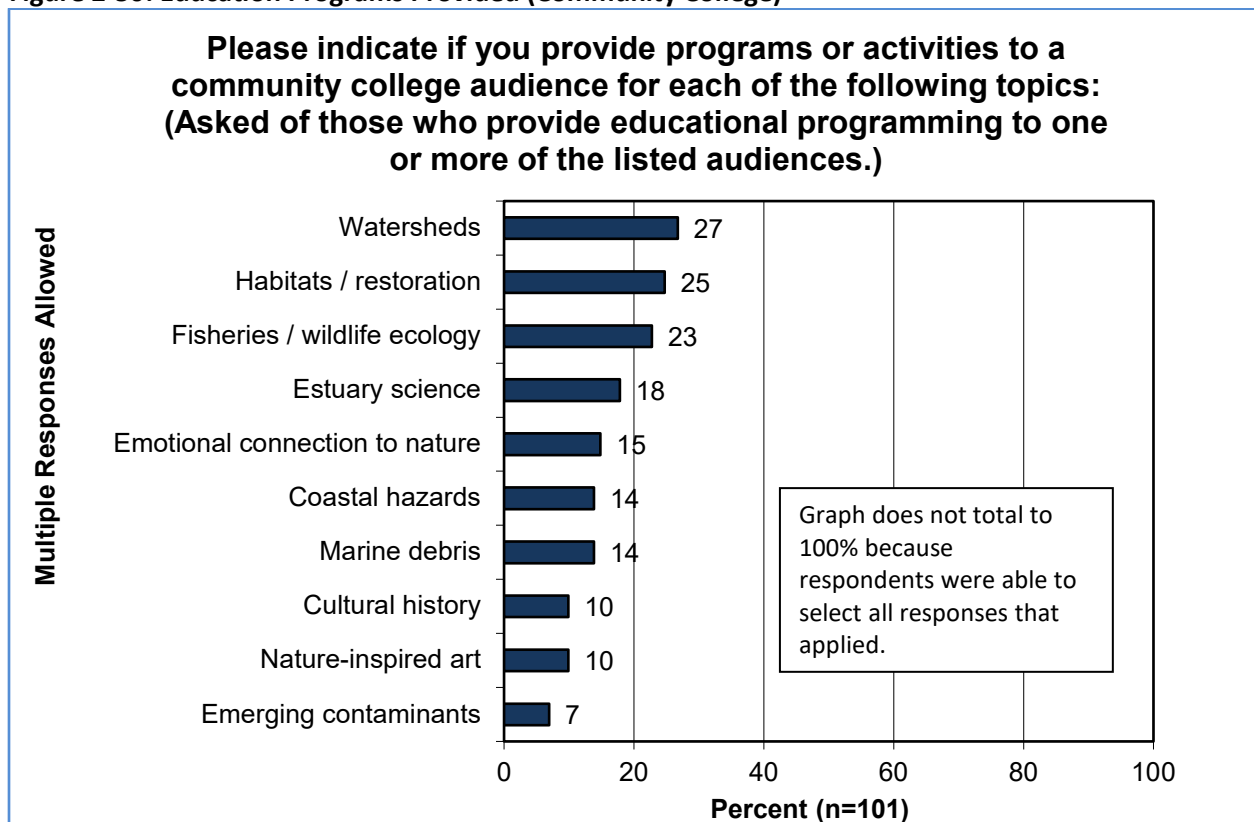


Figure 2-51: Education Programs Provided (4-Year College)

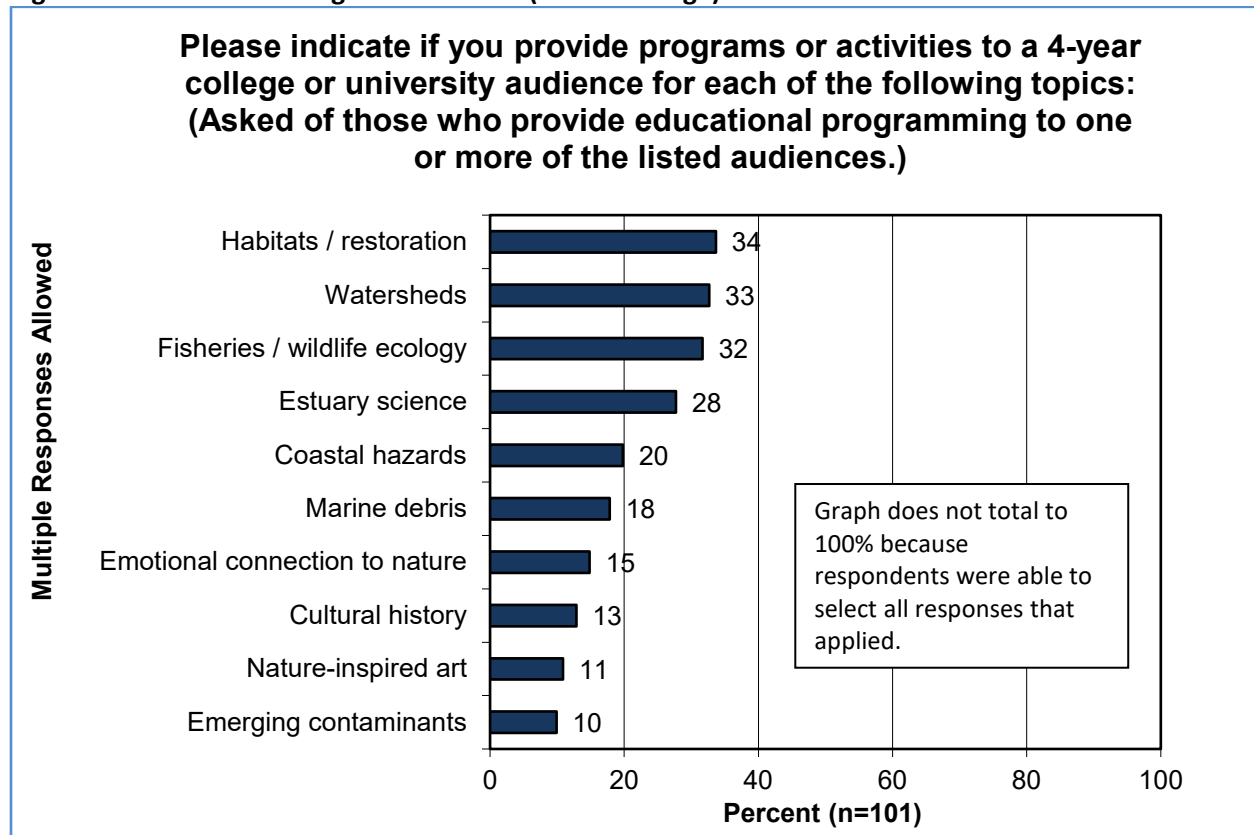


Figure 2-52: Education Programs Provided (Regional or School System)

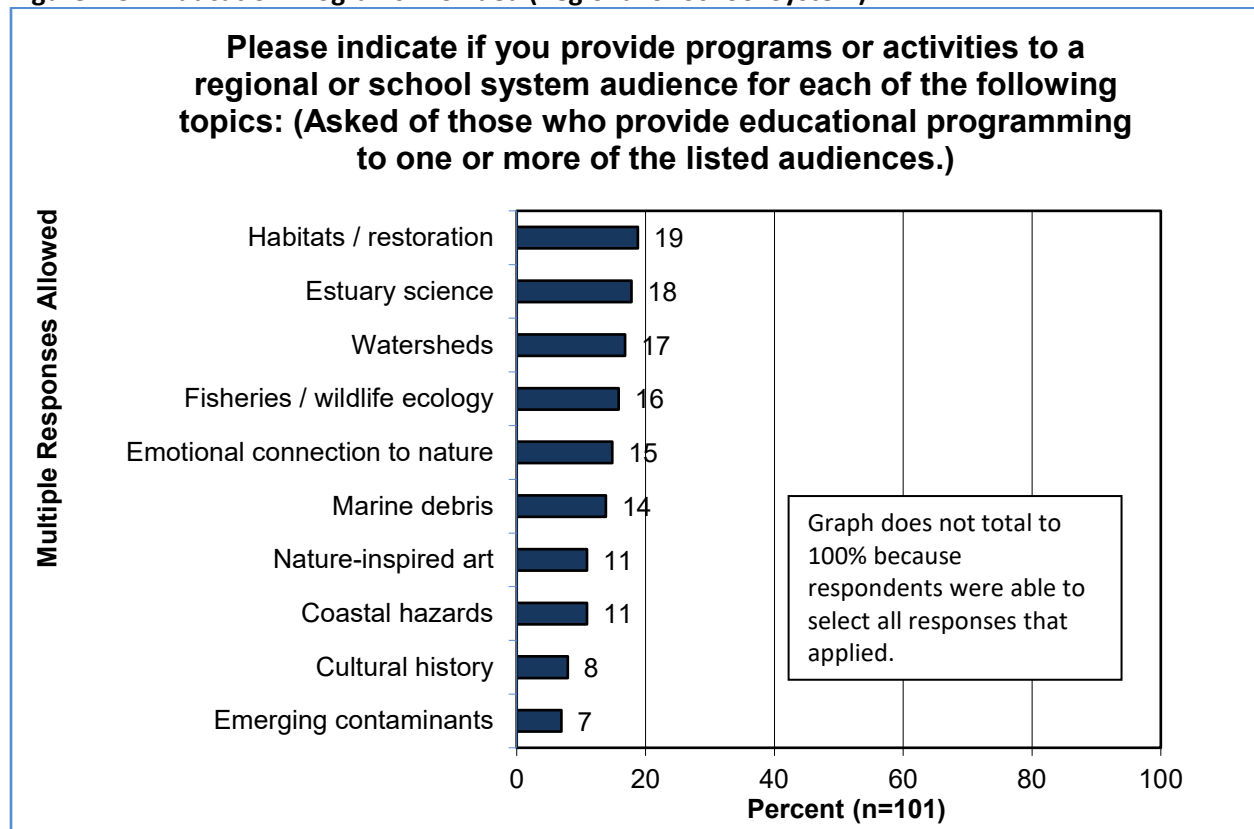


Figure 2-53: Education Programs Provided (Youth Under 18)

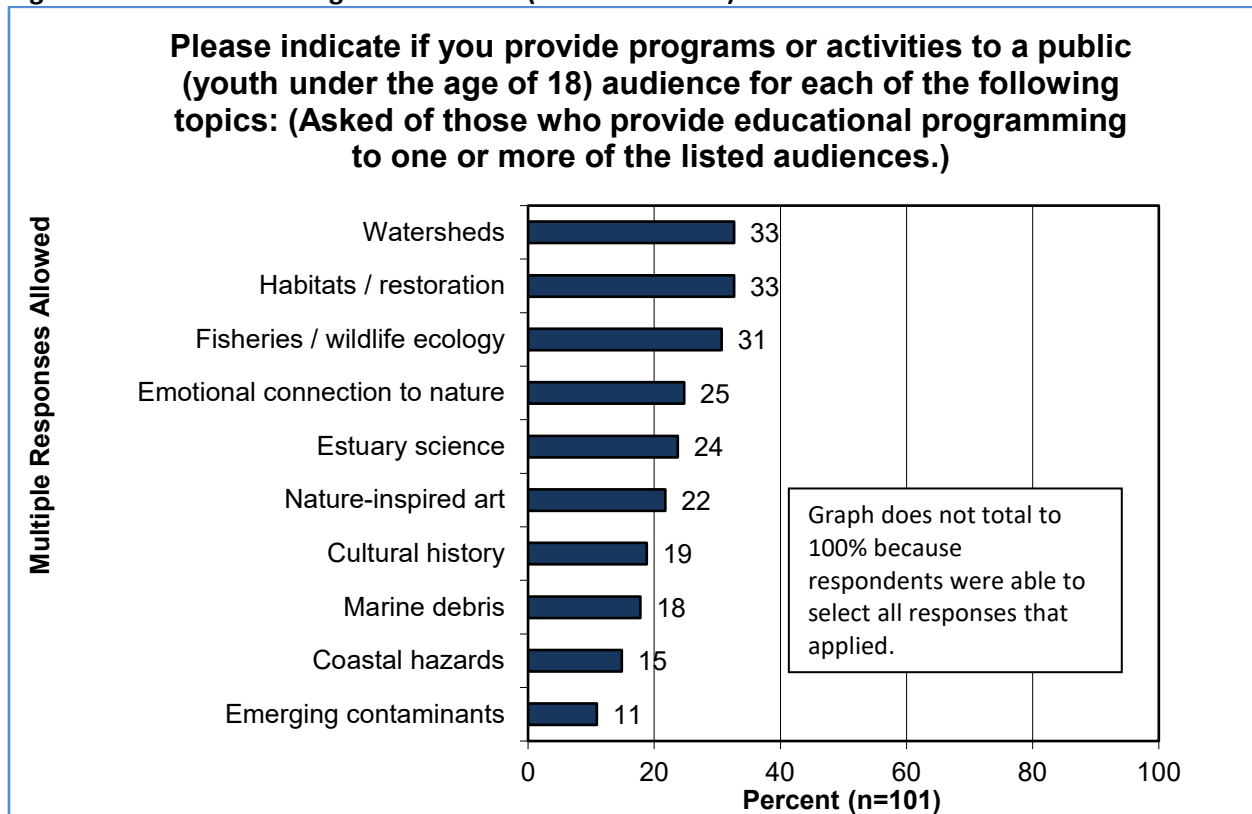


Figure 2-54: Education Programs Provided (Adults Over 18)

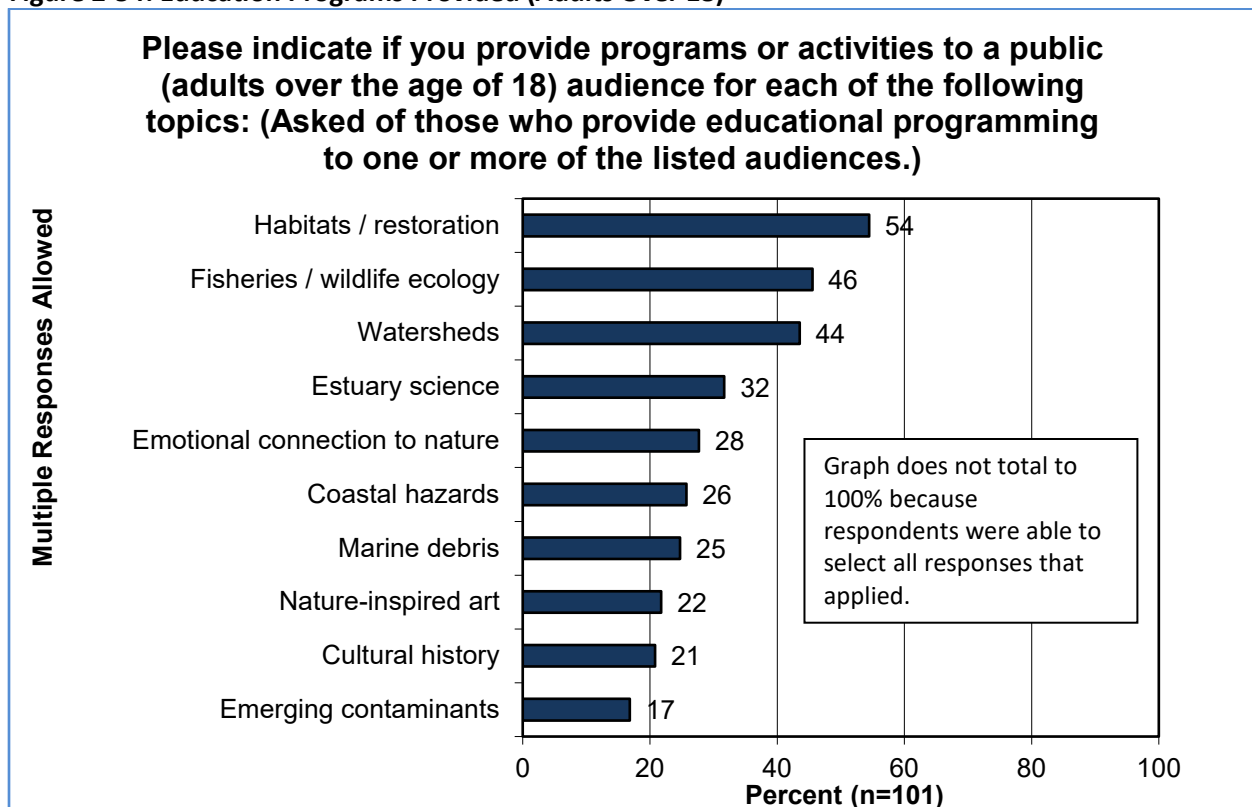


Figure 2-55: Education Programs Provided (Nonformal Educators)

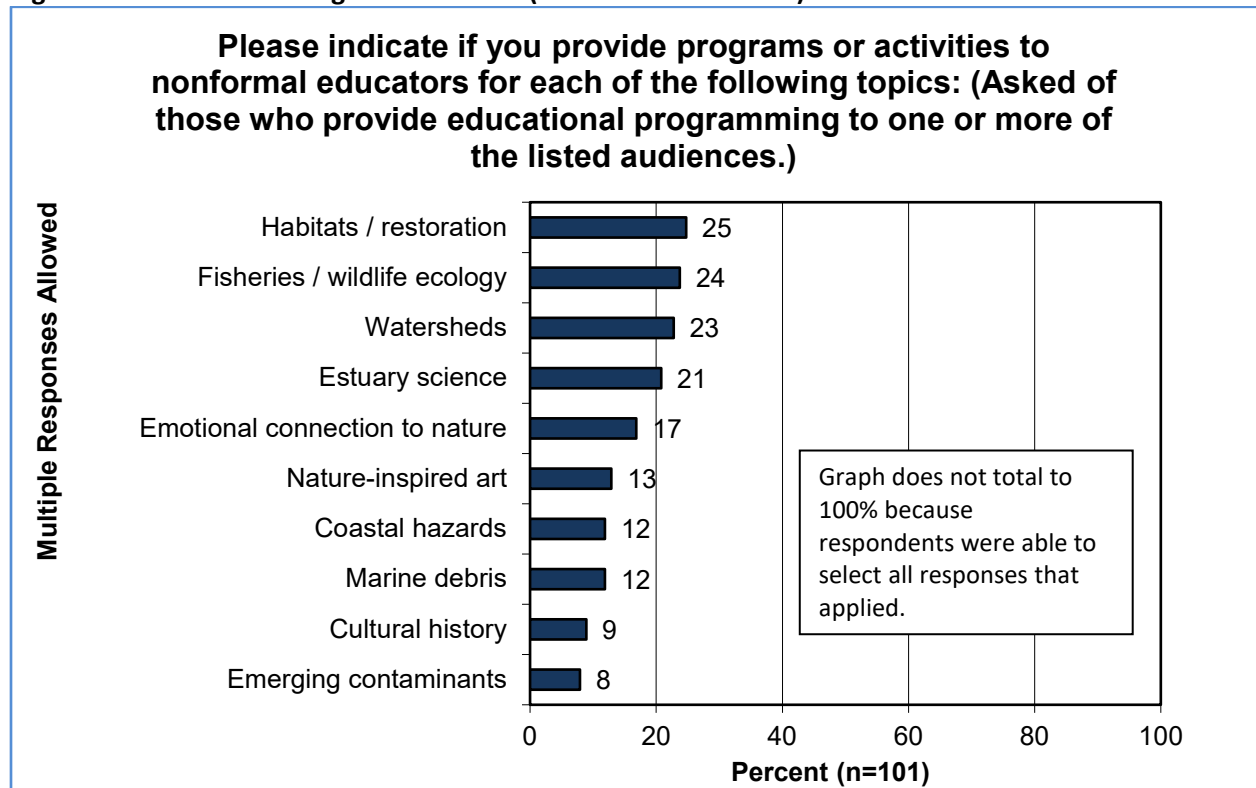
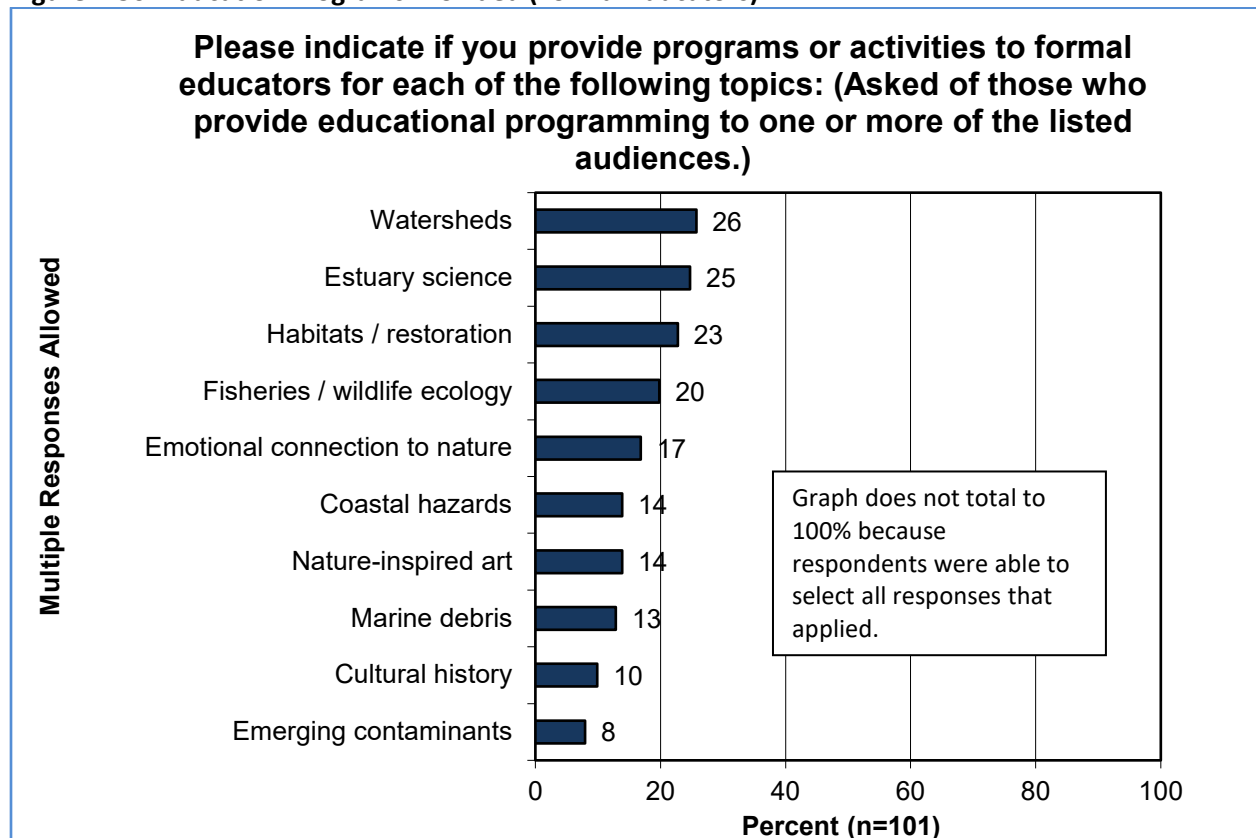
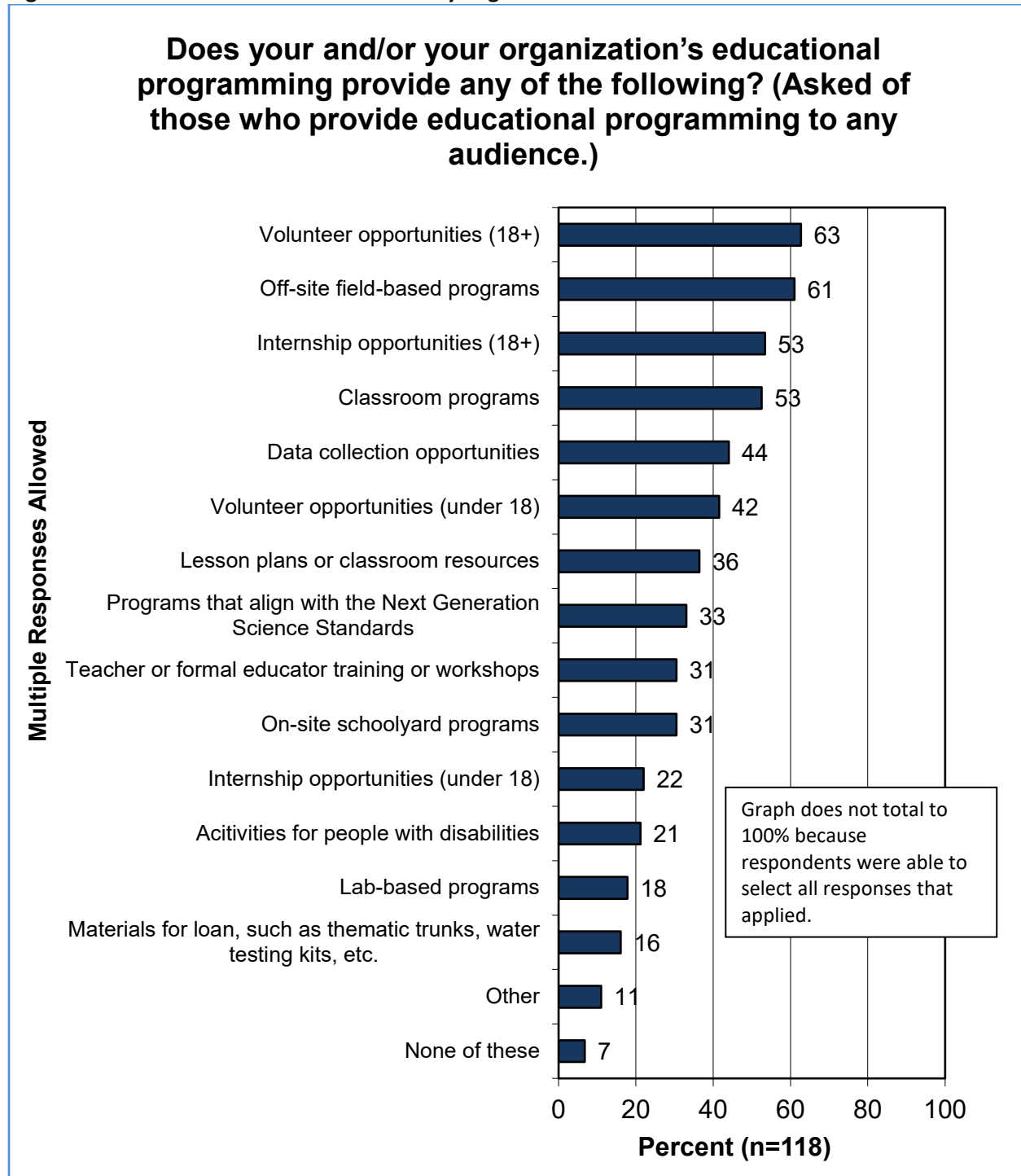


Figure 2-56: Education Programs Provided (Formal Educators)



Next, respondents who provide educational programming were asked to name specific offerings from their organization’s educational programming, from a provided list. The top tier of responses, named by over half of respondents, include volunteer opportunities (adults), off-site field-based programs, internship opportunities (adults), and classroom programs. The full list is shown.

**Figure 2-57: Educational Services Provided by Organization**



<b>Table 2-14. Verbatim Responses to Educational Services Provided by Organization</b>	
<b>Does your and/or your organization's educational programming provide any of the following? (Asked of those who provide educational programming to any audience.) (Write-in "Other" responses)</b>	
Nonprofit staff	Printed and digital resources.
State agency staff	We are small staff but do work with other entities for data samples collections.
	Project and contract dependent, but can include all.
Academia	Projects and programs that align with the Ocean Literacy Principles.
	I want to start some data collection and analysis activities with my students.
	I contribute to multiple types of programming but do not organize such efforts.
Consultant	Interpretive media, exhibit design.
Land trust committee member	Statewide conference, webinars.
Elected or appointed official / Nonprofit staff / Academia / Volunteer for conservation organization / Consultant / Land trust committee member	Policy and legislative proposals on environmental quality.
Volunteer for conservation organization / Consultant	Depends upon project specific partners.
Nonprofit staff / Academia	Our partners provide all of the above-mentioned programs. I primarily provide field-based education programs and in-person presentations in the classroom or elsewhere.

The survey asked respondents who provide educational programming to select any Reserve sites that are or used for their educational programming, from a provided list. For convenience, the CTNERR map was included in the online survey. The most-used sites are/were Bluff Point State Park, the Connecticut River or shoreline, and the Thames River or shoreline.

Figure 2-58: Survey Map of CTNERR Sites

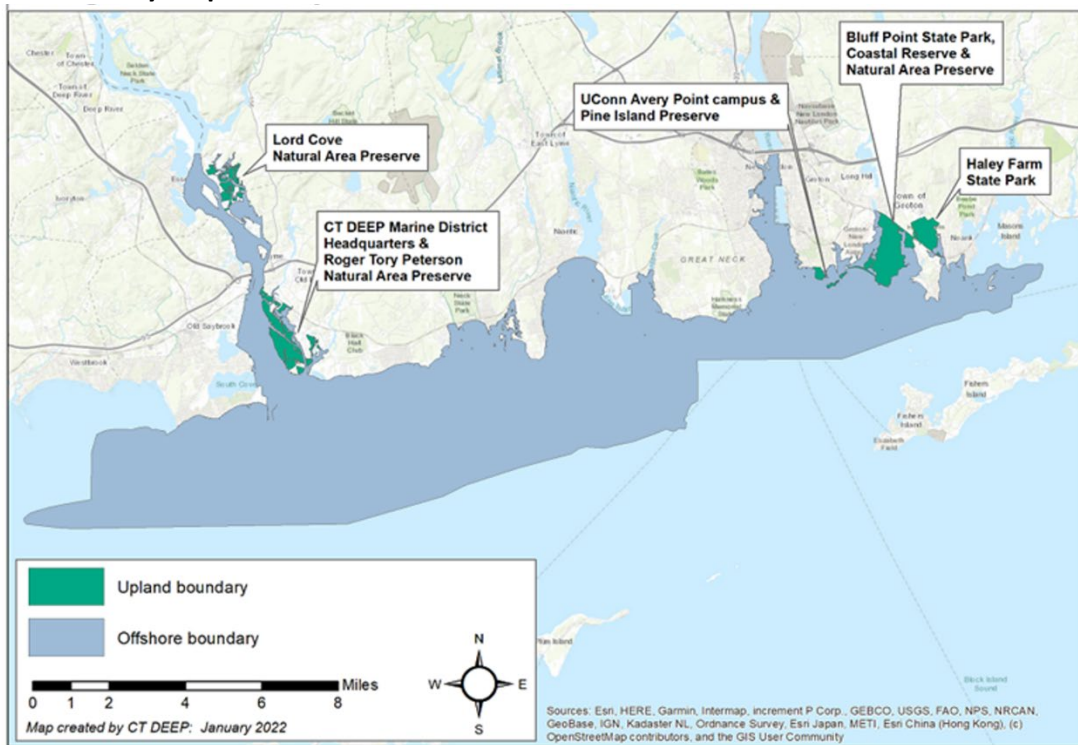
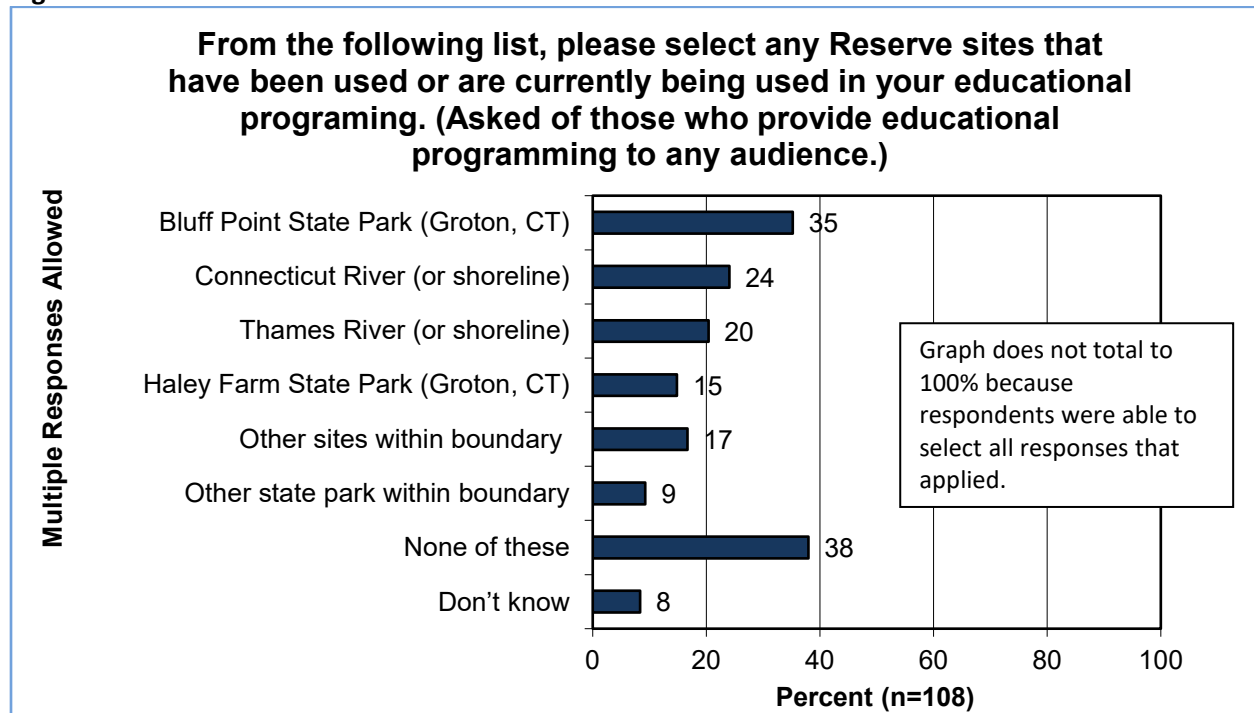


Figure 2-59: Use of Reserve Sites



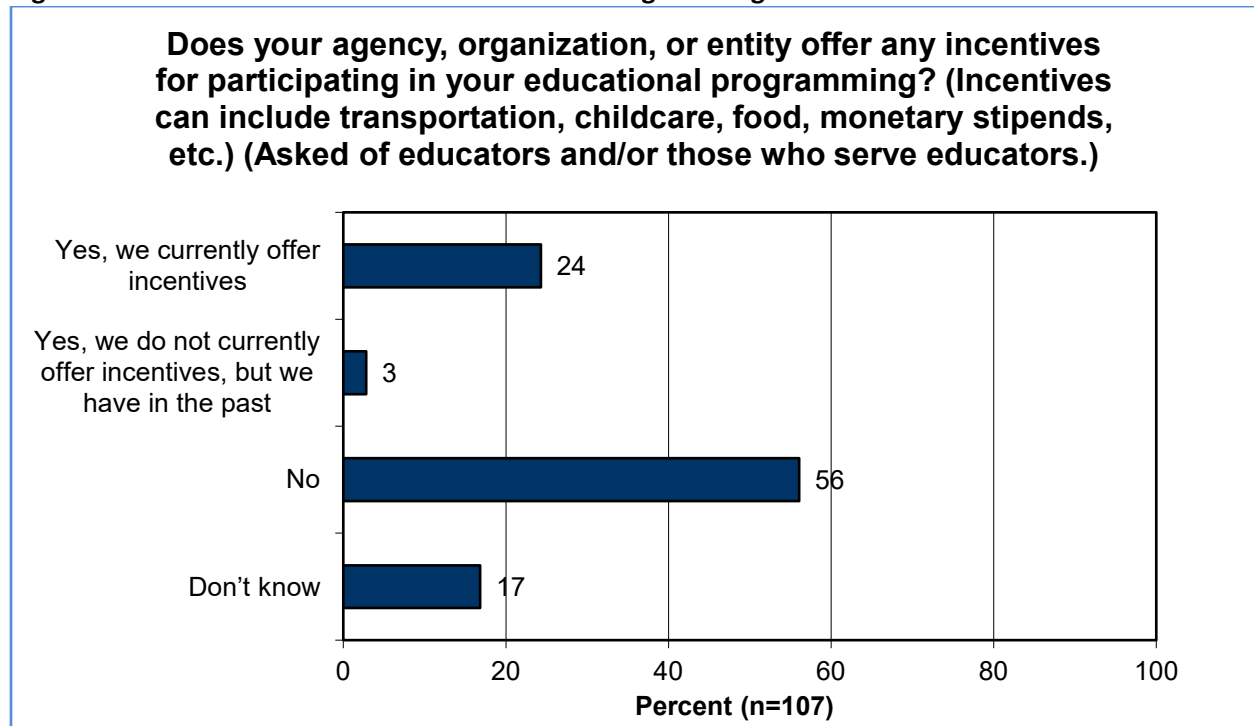
<b>Table 2-15. Verbatim Responses to Use of Reserve Sites</b>	
<b>Please select the Reserve sites that have been used or are used in your educational programming. (Asked of those who provide educational programming to any audience.) (Write-in "Other sites within boundary" responses)</b>	
Nonprofit staff	Avery Point.
	Pine Island.
	The Connecticut River.
	Lieutenant River, Great Island State Boat Launch, Griswold Point, Fenwick.
	Barn Island, Ansonia Land preserves.
	Fort Trumbull.
	Ocean Beach / Alewife Cove / Fenger Brook; Mumford Cove; Poquonnock River.
	Ocean Beach, Niantic Bay, Niantic River, Poquonnock River, Pine Island.
	Esker Point, Bluff Point State Park.
State agency staff	Marine HQ.
	CT DEEP Marine HQ.
	Barn Is., Groton Long Pt., Mile Crk., White Sands Beach.
Municipal staff	The Preserve Essex, CT.
	Thames View Park in the City of Groton.
	Baker Cove.
Academia	Many offshore sites.
	Avery Point Campus.
Consultant	The Preserve Essex, CT.
	Approximately 20 nature centers, preserves (past 25 years).
Land trust committee member	The Preserve Essex, CT.

<b>Table 2-16. Verbatim Responses to Use of Other State Park Within Boundary</b>	
<b>Please select the Reserve sites that have been used or are used in your educational programming. (Asked of those who provide educational programming to any audience.) (Write-in "Other state park within boundary" responses)</b>	
Nonprofit staff	Rocky Neck State Park.
	Rocky Neck.
	Rocky Neck.
	Rocky Neck.
State agency staff	Rocky Neck, Hammonasset.
	Harkness, Rocky Neck.
	Hammonasset state park, Rocky Neck State Park, Silver Sands State Park, Sherwood Island State park.
	Fort Trumbull, New London.
Academia	Rocky Neck State Park.
	Barn Island.

An open-ended question asked those who have used or are currently using Reserve sites in their educational programming to describe how they have used these sites. The full list of responses is shown in Appendix B.

Overall, 24% of respondents who provide educational programming indicated that their organization currently offers incentives for participation in their educational programming, and 3% said that their organization does not currently offer incentives, but it has in the past. A majority of these organizations (56%) do not offer incentives.

**Figure 2-60: Incentives Provided for Educational Programming**



Among those who provide incentives, the list of incentives is shown in the following tabulation.

<b>Table 2-17. Verbatim Responses to Incentives Provided for Educational Programming</b>	
<b>What incentives do you provide for participating in your educational programming? (Asked of those who provide incentives.)</b>	
Nonprofit staff	Through grant funding - transportation for school programs.
	Bussing and fees for attending specific programs.
	Stipends, transportation, salaries.
	Stipends and credits.
	Varies by program: Includes grant funded programs and transportation, food included in summer camps, discounts based on need (including up to 100% of cost), stipends for teachers in Professional Development and after school programs, stipends for summer residential interns, tuition assistance from donations.
	Our programming is limited to public meetings mostly, but we offer food and childcare for larger meetings. We also space meetings to include evenings and afternoons.
	For field studies, we pay for busing.
	Participation is typically free or on a scale which the participant chooses. We offer food.
	We have limited grant funding for school buses for groups.
	Teachers and schools that participate in the Long Island Sound Schools Network receive a stipend and \$5,000 towards program costs.
State agency staff	Transportation for those participating in some of the NCLI events through the Parks Connect program which is a partnership with DOT to help transport individuals from underserved communities to these events for them to participate in.
	Project and contract dependent. In past, has been food and/or gift cards.
Municipal staff	It varies, but we almost always provide food, and we recently hosted an event in which we provided food, childcare, and a gift card stipend.
	Food/ lunch provided at events.
	Food and tchotchkes and education and print materials.
Academia	Teacher stipends; funds for resources and/or projects.
	Stipends for participating teachers.
	All programming is free and lunch is provided at select events.
	Transportation and paid stipends for a subset of participants.
Volunteer for conservation organization	Sometimes free food at gatherings. Sometimes stipends for guest instructors.
Land trust committee member	It depends on the program, but some have included transportation, food, CEUs, stipends, etc.
Land trust committee member / Volunteer for conservation organization	School bus transportation funding for past year.
State agency staff / Volunteer for conservation organization	Rarely. Bus passes were recently allowed.
Nonprofit staff / Regional agency / organization staff	We offer paid internships. We also fund outreach programming that offers other incentives (honoraria, stipends, etc.).

Finally in this chapter, respondents who provide educational programming were asked to name any gaps in teacher training and educational programming that the Reserve can help with. The full list of responses is shown in Appendix B.

## DEMOGRAPHIC CHARACTERISTICS

The survey collected data on each respondent’s age and ethnicity.

Figure 2-61: Respondent Age

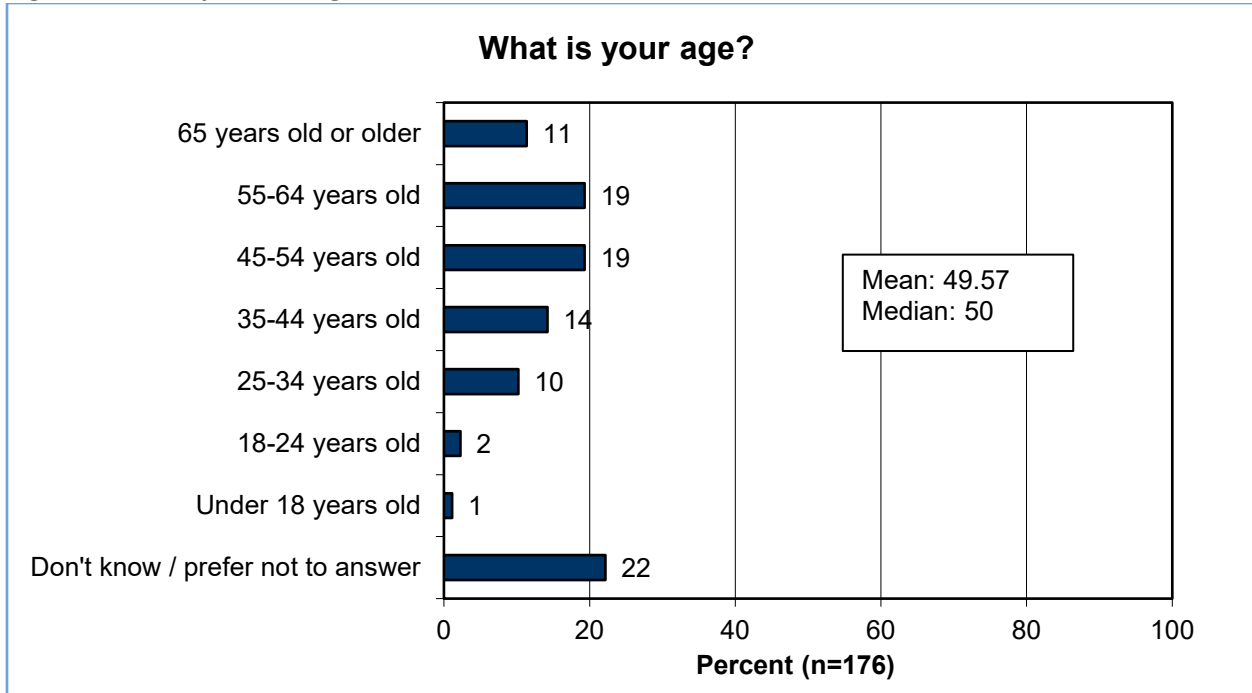
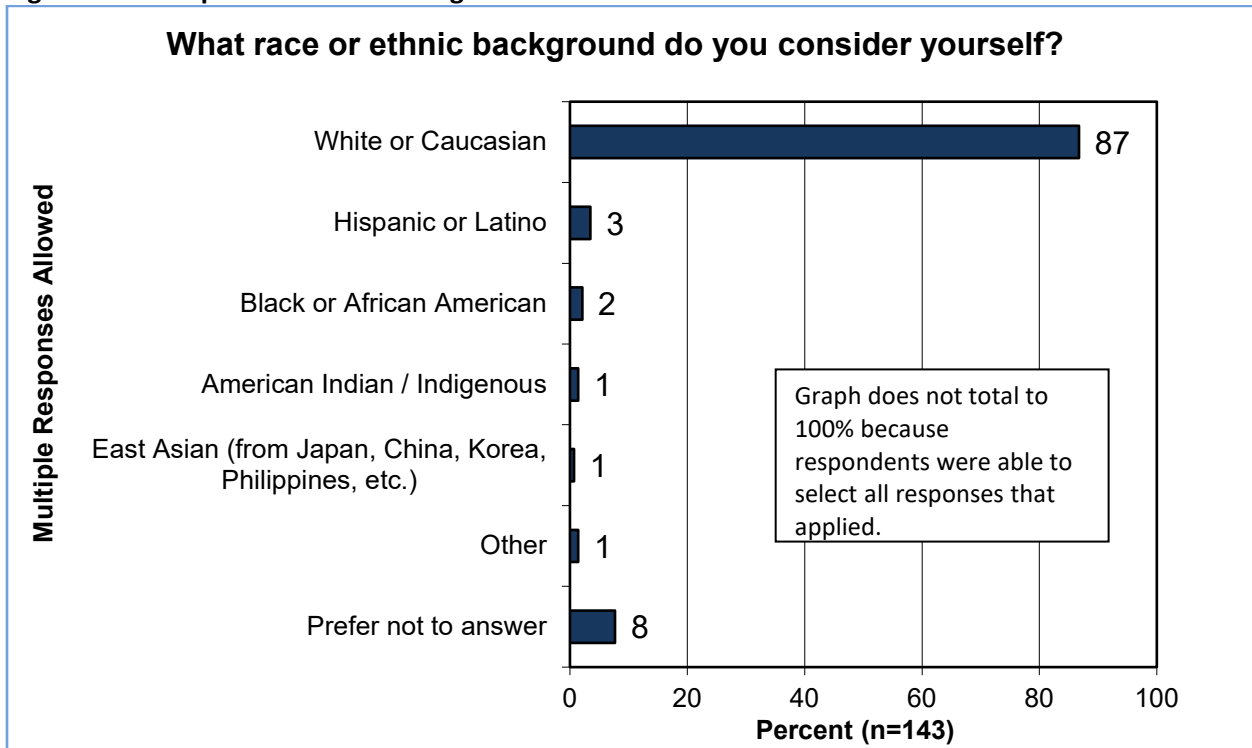


Figure 2-62: Respondent Ethnic Background



## APPENDIX A: RESULTS BY ORGANIZATION TYPE

To better evaluate the differing needs and attitudes of the various respondent groups, this appendix presents crosstabulations of survey results by respondents' type of organization, shown below.

Organization Type	Frequency Giving Response
Nonprofit staff	47
State agency staff	34
Municipal staff	27
Academia	27
Volunteer for conservation organization	17
Consultant	15
Land trust committee member	13
Regional agency / organization staff	10
Elected or appointed official	8
Federal agency staff	7
Municipal commission (volunteer)	7
Tribal member / government	3

The sum of these values is 215, greater than the sample size of 176, because survey respondents could select more than one category. Therefore, for example, if someone selected both municipal staff and consultant, that person's response to a question will appear within each category.

Because the sample sizes are low for several categories, results are presented as frequencies (the number of people in each category giving the response) rather than as percentages like the overall results shown in graphs throughout the body of the report.

These crosstabulations are shown in the same order as the overall results, starting on the next page.

**ROLE WITHIN ORGANIZATION**

<b>Which unit(s) of continuing education credits, if any, does your position require? (Multiple Responses Allowed) (Frequency Giving Response)</b>								
	My role does not require continuing education credits	Professional development hours	Continuing Education Units (CEUs)	American Institute of Architects (AIA)	American Planning Association (APA) / American Institute of Certified Planners (AICP)	The Association of State Floodplain Managers (ASFPM)	Other	Don't know
Nonprofit staff	41	2	1	0	0	0	1	2
State agency staff	30	1	1	0	0	0	1	1
Municipal staff	15	2	8	0	3	1	4	0
Academia	24	2	0	0	1	0	0	0
Volunteer for conservation organization	10	3	4	0	1	1	1	0
Consultant	6	3	7	0	3	1	2	1
Land trust committee member	8	4	2	0	0	0	0	0
Regional agency / organization staff	6	0	1	0	1	0	1	1
Elected or appointed official	4	1	2	0	1	0	0	0
Federal agency staff	7	0	0	0	0	0	0	0
Municipal commission (volunteer)	5	0	2	0	0	0	1	0
Tribal member / government	2	0	1	0	0	0	0	0
<b>Total</b>	<b>158</b>	<b>18</b>	<b>29</b>	<b>0</b>	<b>10</b>	<b>3</b>	<b>11</b>	<b>5</b>

**ORGANIZATIONAL AND PERSONAL FOCUS**

<b>Does your organization provide information or services related to any of the following general coastal topics or issues? (Multiple Responses Allowed) (Frequency Giving Response)</b>						
	Water quality	Habitat management and restoration	Climate resilience and/or storm preparedness	Educational programming	Don't know	None of these
Nonprofit staff	40	42	39	44	0	0
State agency staff	27	28	26	25	0	1
Municipal staff	22	14	19	10	0	3
Academia	20	24	19	26	0	0
Volunteer for conservation organization	13	16	12	12	0	0
Consultant	13	11	10	6	0	1
Land trust committee member	8	13	7	11	0	0
Regional agency / organization staff	9	6	9	6	0	1
Elected or appointed official	5	4	5	5	0	2
Federal agency staff	5	6	5	0	0	0
Municipal commission (volunteer)	5	6	5	4	0	1
Tribal member / government	2	2	2	2	1	0
<b>Total</b>	<b>169</b>	<b>172</b>	<b>158</b>	<b>151</b>	<b>1</b>	<b>9</b>

<b>Of the topics you selected, which topic(s) would you say are YOUR primary focus in your current role? (Multiple Responses Allowed) (Frequency Giving Response)</b>					
	Habitat management and restoration	Water quality	Climate resilience and/or storm preparedness	Educational programming	Other
Nonprofit staff	23	16	9	21	8
State agency staff	17	15	9	6	2
Municipal staff	9	13	12	5	2
Academia	9	5	9	16	2
Volunteer for conservation organization	8	5	6	5	4
Consultant	6	7	6	3	3
Land trust committee member	7	3	4	4	3
Regional agency / organization staff	2	6	4	1	1
Elected or appointed official	2	2	4	1	0
Federal agency staff	5	3	2	0	0
Municipal commission (volunteer)	4	2	1	1	1
Tribal member / government	2	0	1	1	0
<b>Total</b>	<b>94</b>	<b>77</b>	<b>67</b>	<b>64</b>	<b>26</b>

How would you describe the area you serve? (Frequency Giving Response)							
	Nationwide	Multi-state	Statewide (Connecticut)	Regionally within Connecticut	Municipal area, city, or town	Other	Don't know
Nonprofit staff	2	24	17	9	1	4	0
State agency staff	2	2	30	2	0	0	0
Municipal staff	0	0	2	1	24	0	0
Academia	4	4	18	2	2	4	0
Volunteer for conservation organization	0	3	4	7	8	2	0
Consultant	3	5	8	3	3	3	0
Land trust committee member	0	0	5	7	7	0	0
Regional agency / organization staff	0	3	1	5	2	0	0
Elected or appointed official	0	0	1	1	6	0	0
Federal agency staff	2	5	2	0	0	0	0
Municipal commission (volunteer)	0	1	0	3	4	2	0
Tribal member / government	0	1	1	0	0	2	0
Total	13	48	89	40	57	17	0

<b>Distressed municipalities are defined by the Connecticut Department of Economic and Community Development using statistical indicators measuring the fiscal capacity of each municipality. For more information and to see a list of distressed municipalities, click <a href="#">HERE</a>. Would you say...? (Frequency Giving Response)</b>					
	All the community(ies) you serve is / are distressed	Some of the community(ies) you serve is / are distressed	None of the community(ies) you serve is / are distressed	Other	This does not apply to your position
Nonprofit staff	1	42	3	0	1
State agency staff	1	30	0	0	3
Municipal staff	7	6	13	0	1
Academia	0	20	0	1	6
Volunteer for conservation organization	2	9	3	0	3
Consultant	0	11	2	0	2
Land trust committee member	2	7	2	0	2
Regional agency / organization staff	0	5	4	0	0
Elected or appointed official	2	2	4	0	0
Federal agency staff	0	4	1	0	2
Municipal commission (volunteer)	0	2	2	1	2
Tribal member / government	1	0	0	1	1
<b>Total</b>	<b>16</b>	<b>138</b>	<b>34</b>	<b>3</b>	<b>23</b>

How would you describe the audience you serve? (Multiple Responses Allowed) (Frequency Giving Response)															
	For profit businesses	The public	NGOs and nonprofits	Local government officials (elected or unelected)	State government officials (elected or unelected)	Federal government officials (elected or unelected)	Tribal (sovereign, domestic tribal nations or governments)	Formal educators or educational institutions	Nonformal educators	Students (PreK, K-12, college)	Media	Faith based organizations	Volunteers	Other	Don't know
Nonprofit staff	12	44	32	27	21	19	18	28	26	29	10	5	31	3	0
State agency staff	8	32	16	19	18	9	9	6	6	8	5	2	12	2	0
Municipal staff	7	26	6	17	6	4	2	3	4	7	6	3	7	2	0
Academia	5	22	13	10	11	9	8	13	10	16	5	3	8	3	0
Volunteer for conservation organization	4	16	7	10	6	3	4	6	3	5	2	2	9	0	0
Consultant	9	8	4	11	5	3	2	3	2	2	1	1	4	1	0
Land trust committee member	2	13	4	5	2	1	3	1	1	4	1	1	4	1	0
Regional agency / organization staff	2	9	7	9	6	3	5	3	4	4	3	0	6	0	0
Elected or appointed official	4	8	2	4	4	3	1	2	2	3	2	1	3	1	0
Federal agency staff	1	5	5	5	6	4	5	1	1	1	0	0	1	1	0
Municipal commission (volunteer)	1	6	2	3	0	0	0	3	1	2	0	0	1	0	0
Tribal member / government	0	1	1	0	0	0	3	1	1	1	0	0	0	0	0
Total	55	190	99	120	85	58	60	70	61	82	35	18	86	14	0

**AWARENESS OF THE CTNERR**

<b>Before this survey, how familiar were you with the Reserve? (Frequency Giving Response)</b>				
	Very familiar	Somewhat familiar	A little familiar	Not at all familiar
Nonprofit staff	25	19	0	3
State agency staff	20	14	0	0
Municipal staff	4	14	0	9
Academia	12	13	0	2
Volunteer for conservation organization	5	9	0	3
Consultant	3	6	0	6
Land trust committee member	5	5	0	3
Regional agency / organization staff	5	4	0	1
Elected or appointed official	2	3	0	3
Federal agency staff	3	3	0	1
Municipal commission (volunteer)	2	5	0	0
Tribal member / government	1	2	0	0
<b>Total</b>	<b>87</b>	<b>97</b>	<b>0</b>	<b>31</b>

## PERSONAL AND ORGANIZATIONAL NEEDS FOR TRAINING

On which topics would you benefit from training (e.g., workshop, site visit, and/or direct technical assistance)? (Multiple Responses Allowed) (Frequency Giving Response)																														
	Stormwater management	Green infrastructure (e.g., rain gardens, bioswales)	Structural technology (e.g., backflow preventers, permeable pavement, structural Best Management Practices (BMPs))	Land use and nutrient loading to coastal waters	Benefits of natural habitats on water quality (e.g., wetlands, riparian buffers, shellfish beds)	Ocean acidification	Pathogen monitoring	Coastal flooding	Coastal hazards management and planning for sea level rise	Nature-based solutions to address flooding and erosion	Municipal climate resilience	Eelgrass management and restoration	Assessing and managing tidal restrictions / road stream crossings	Tidal wetland / marsh migration	Protecting coastal resources such as dunes, tidal wetlands, bluffs / escarpments	Living shorelines for habitat restoration and protection	Invasives assessment and management	Terrestrial invasives	Freshwater invasives	Marine invasives	Blue carbon	Role of riparian buffers	Watershed assessment	Habitat mapping	Soil survey mapping applications	Sea floor mapping applications	Stream barrier removal for wildlife migration (dams, culverts)	Other topic not mentioned here	Don't know	None of these
Nonprofit staff	16	0	0	12	19	6	9	10	12	22	17	17	11	16	16	19	14	0	0	0	9	9	11	17	8	5	12	3	4	2
State agency staff	14	0	0	12	19	7	8	12	13	19	8	12	13	14	19	17	12	0	0	0	9	11	9	12	6	5	13	3	1	4
Municipal staff	12	0	0	8	13	6	5	13	14	12	14	3	5	9	11	9	12	0	0	0	3	8	8	5	8	3	4	0	1	2
Academia	5	0	0	4	7	6	5	8	8	8	8	4	3	6	6	10	4	0	0	0	6	5	4	8	8	7	4	4	2	3
Volunteer for conservation organization	5	0	0	7	11	4	5	6	7	9	6	5	6	10	11	10	9	0	0	0	5	8	8	10	7	3	7	3	0	0
Consultant	6	0	0	3	6	2	3	5	9	10	9	4	7	8	6	7	6	0	0	0	4	6	8	7	5	3	6	3	0	1
Land trust committee member	6	0	0	8	10	4	3	7	7	9	5	5	5	8	10	10	10	0	0	0	3	8	8	8	5	2	6	1	0	0
Regional agency / organization staff	5	0	0	0	3	0	2	1	2	5	2	3	1	2	0	1	1	0	0	0	0	2	3	1	0	0	1	0	1	0
Elected or appointed official	1	0	0	1	2	2	2	4	3	3	2	1	2	4	3	3	2	0	0	0	1	2	2	2	3	1	3	0	0	1
Federal agency staff	0	0	0	4	3	2	0	2	2	3	1	2	2	5	3	3	4	0	0	0	2	2	1	0	1	0	0	1	0	0
Municipal commission (volunteer)	4	0	0	3	3	1	3	2	3	6	3	4	3	4	3	3	5	0	0	0	1	4	4	2	2	1	2	1	0	0
Tribal member / government	1	0	0	1	2	1	0	1	0	2	0	1	0	2	1	2	2	0	0	0	1	1	0	2	0	1	2	0	0	0
Total	75	0	0	63	98	41	45	71	80	108	75	61	58	88	89	94	81	0	0	0	44	66	66	74	53	31	60	19	9	13

<b>On which of the following stormwater management topics would you benefit from a training? (Asked of those who selected the topic.) (Multiple Responses Allowed) (Frequency Giving Response)</b>					
	Green infrastructure (e.g., rain gardens, bioswales)	Structural technology (e.g., backflow preventers, permeable pavement, structural Best Management Practices (BMPs))	Other	Don't know	None of these
Nonprofit staff	12	12	0	0	0
State agency staff	12	11	0	0	0
Municipal staff	10	10	0	0	0
Academia	5	3	1	0	0
Volunteer for conservation organization	5	3	1	0	0
Consultant	6	5	1	0	0
Land trust committee member	6	3	0	0	0
Regional agency / organization staff	2	5	0	0	0
Elected or appointed official	1	1	0	0	0
Federal agency staff	0	0	0	0	0
Municipal commission (volunteer)	3	3	0	0	0
Tribal member / government	0	1	0	0	0
<b>Total</b>	<b>62</b>	<b>57</b>	<b>3</b>	<b>0</b>	<b>0</b>

<b>On which of the following invasives assessment and management topics would you benefit from a training? (Asked of those who selected the topic.) (Multiple Responses Allowed) (Frequency Giving Response)</b>						
	Terrestrial invasives	Freshwater invasives	Marine invasives	Other	Don't know	None of these
Nonprofit staff	12	10	10	0	0	0
State agency staff	9	9	8	1	0	0
Municipal staff	11	8	5	1	0	0
Academia	3	3	2	1	0	0
Volunteer for conservation organization	9	5	4	0	0	0
Consultant	6	5	4	0	0	0
Land trust committee member	9	5	4	0	0	0
Regional agency / organization staff	1	0	0	0	0	0
Elected or appointed official	2	1	1	0	0	0
Federal agency staff	2	0	1	1	0	0
Municipal commission (volunteer)	5	5	3	0	0	0
Tribal member / government	1	1	1	1	0	0
<b>Total</b>	<b>70</b>	<b>52</b>	<b>43</b>	<b>5</b>	<b>0</b>	<b>0</b>

<b>On which of the following nature-based solutions to address flooding and erosion topics would you benefit from a training? (Asked of those who selected the topic.) (Multiple Responses Allowed) (Frequency Giving Response)</b>					
	Green infrastructure / stormwater management (e.g., raingardens, bioswales)	Living shorelines techniques	Other	Don't know	None of these
Nonprofit staff	17	15	1	0	0
State agency staff	16	17	1	0	0
Municipal staff	9	10	0	0	1
Academia	6	7	1	0	0
Volunteer for conservation organization	7	7	2	0	0
Consultant	8	8	3	0	0
Land trust committee member	7	8	0	0	0
Regional agency / organization staff	4	3	0	0	0
Elected or appointed official	3	3	0	0	0
Federal agency staff	1	3	0	0	0
Municipal commission (volunteer)	5	5	0	0	0
Tribal member / government	2	1	0	0	0
<b>Total</b>	<b>85</b>	<b>87</b>	<b>8</b>	<b>0</b>	<b>1</b>

<b>Specifically, on which of the following living shoreline techniques topics would you benefit from a training? (Asked of those who selected the topic.) (Multiple Responses Allowed) (Frequency Giving Response)</b>							
	Site assessment	Design criteria	Permitting	Monitoring protocols	Use of reef balls or other artificial reef components	Other	None of these
Nonprofit staff	8	9	9	9	6	2	1
State agency staff	16	13	6	14	11	0	1
Municipal staff	8	7	6	9	5	0	0
Academia	5	6	5	6	4	1	1
Volunteer for conservation organization	6	6	6	6	5	1	0
Consultant	7	8	6	6	4	1	0
Land trust committee member	7	6	6	6	6	0	0
Regional agency / organization staff	3	3	2	0	0	0	0
Elected or appointed official	2	2	3	3	1	0	0
Federal agency staff	1	2	1	2	1	0	0
Municipal commission (volunteer)	4	4	4	4	1	0	0
Tribal member / government	1	1	0	0	1	0	0
<b>Total</b>	<b>68</b>	<b>67</b>	<b>54</b>	<b>65</b>	<b>45</b>	<b>5</b>	<b>3</b>

<b>On which of the following municipal climate resilience topics would you benefit from a training? (Asked of those who selected the topic.) (Multiple Responses Allowed) (Frequency Giving Response)</b>				
	Zoning for climate resilience (updates and review of regulations, codes, and ordinances)	Vulnerability assessment	Other	None of these
Nonprofit staff	12	15	0	1
State agency staff	7	6	2	0
Municipal staff	13	11	0	0
Academia	7	7	1	0
Volunteer for conservation organization	6	4	2	0
Consultant	9	8	2	0
Land trust committee member	5	4	0	0
Regional agency / organization staff	1	2	0	0
Elected or appointed official	2	2	0	0
Federal agency staff	1	1	0	0
Municipal commission (volunteer)	3	3	0	0
Tribal member / government	0	0	0	0
Total	66	63	7	1

Which of the topics you selected represent your highest or most immediate needs for training? (Respondents only shown topics that they selected in previous questions.) (Frequency Giving Response)													
	Nonprofit staff	State agency staff	Municipal staff	Academia	Volunteer for conservation organization	Consultant	Land trust committee member	Regional agency / organization staff	Elected or appointed official	Federal agency staff	Municipal commission (volunteer)	Tribal member / government	Total
Stormwater management	0	0	0	0	0	0	0	0	0	0	0	0	0
Stormwater management - Green infrastructure (e.g., rain gardens, bioswales)	4	3	6	1	2	2	2	1	0	0	2	0	23
Stormwater management - Structural technology (e.g., backflow preventers, permeable pavement, structural Best Management Practices (BMPs))	8	7	5	0	1	1	1	5	0	0	3	1	32
Other stormwater management topic you listed	0	0	0	0	0	0	0	0	0	0	0	0	0
Land use and nutrient loading to coastal waters	2	1	2	0	3	1	2	0	0	3	1	0	15
Benefits of natural habitats on water quality (e.g., wetlands, riparian buffers, shellfish beds)	8	5	3	1	6	2	3	1	1	0	1	1	32
Ocean acidification	2	2	0	3	0	0	0	0	0	0	0	0	7
Pathogen monitoring	3	4	0	0	2	0	0	1	0	0	0	0	10
Coastal flooding	4	5	5	5	5	4	4	0	3	1	0	0	36
Coastal hazards management and planning for sea level rise	5	5	5	5	5	5	3	0	3	0	1	0	37
Nature-based solutions to address flooding and erosion	0	0	0	0	0	0	0	0	0	0	0	0	0
Nature-based solutions to address flooding and erosion - Green infrastructure /	6	8	3	3	4	4	2	3	1	0	1	1	36

Which of the topics you selected represent your highest or most immediate needs for training? (Respondents only shown topics that they selected in previous questions.) (Frequency Giving Response)													
	Nonprofit staff	State agency staff	Municipal staff	Academia	Volunteer for conservation organization	Consultant	Land trust committee member	Regional agency / organization staff	Elected or appointed official	Federal agency staff	Municipal commission (volunteer)	Tribal member / government	Total
stormwater management (e.g., raingardens, bioswales)													
Other nature-based solution to address flooding and erosion topic you listed	1	1	0	0	2	3	0	0	0	0	0	0	7
Nature-based solutions to address flooding and erosion - Living shorelines techniques	1	0	0	0	0	0	0	0	0	0	0	0	1
Living shorelines techniques - Site assessment	2	4	4	2	3	2	3	0	0	0	0	0	20
Living shorelines techniques - Design criteria	2	5	5	2	3	3	3	0	0	0	1	0	24
Living shorelines techniques - Permitting	2	1	1	1	2	3	2	0	0	0	2	0	14
Living shorelines techniques - Monitoring protocols	2	2	2	2	3	2	3	0	0	0	2	0	18
Living shorelines techniques - Use of reef balls or other artificial reef components	1	1	0	2	3	1	2	0	0	0	0	0	10
Other living shoreline technique topic you listed	0	0	0	0	1	1	0	0	0	0	0	0	2
Eelgrass management and restoration	9	5	2	2	1	1	1	3	0	2	1	0	27
Assessing and managing tidal restrictions/road stream crossings	3	3	2	0	3	2	1	0	0	0	1	0	15
Tidal wetland/marsh migration	7	7	3	3	3	3	2	0	2	0	3	0	33
Protecting coastal resources such as	4	3	1	2	3	3	4	0	0	1	1	0	22

Which of the topics you selected represent your highest or most immediate needs for training? (Respondents only shown topics that they selected in previous questions.) (Frequency Giving Response)													
	Nonprofit staff	State agency staff	Municipal staff	Academia	Volunteer for conservation organization	Consultant	Land trust committee member	Regional agency / organization staff	Elected or appointed official	Federal agency staff	Municipal commission (volunteer)	Tribal member / government	Total
dunes, tidal wetlands, bluffs / escarpments													
Living shorelines for habitat restoration and protection	3	5	2	5	4	2	1	0	0	1	1	0	24
Invasives assessment and management	0	0	0	0	0	0	0	0	0	0	0	0	0
Invasives assessment and management - Terrestrial invasives	3	2	5	2	4	1	4	0	1	1	3	0	26
Invasives assessment and management - Freshwater invasives	4	4	1	1	2	1	2	0	0	0	2	0	17
Invasives assessment and management - Marine invasives	5	2	0	0	2	1	1	0	0	0	0	0	11
Other invasive assessment and management topic you listed	0	0	0	0	0	0	0	0	0	0	0	1	1
Blue carbon	3	2	0	1	1	1	0	0	0	2	0	0	10
Role of riparian buffers	3	3	0	1	3	2	2	2	0	0	2	0	18
Watershed assessment	5	2	2	0	1	1	2	0	0	0	1	0	14
Habitat mapping	5	4	0	3	4	3	2	0	0	0	1	0	22
Soil survey mapping applications	3	2	1	0	2	2	1	0	0	0	2	0	13
Sea floor mapping applications	0	1	0	3	1	1	0	0	0	0	0	0	6
Stream barrier removal for wildlife migration (dams, culverts)	3	4	0	0	2	3	1	0	0	0	1	1	15
Climate resilience and/or storm preparedness	0	0	0	0	0	0	0	0	0	0	0	0	0
Municipal climate resilience	0	0	0	0	0	0	0	0	0	0	0	0	0
Municipal climate resilience - Zoning for climate resilience	7	1	5	4	4	4	3	0	1	0	0	0	29

Which of the topics you selected represent your highest or most immediate needs for training? (Respondents only shown topics that they selected in previous questions.) (Frequency Giving Response)													
	Nonprofit staff	State agency staff	Municipal staff	Academia	Volunteer for conservation organization	Consultant	Land trust committee member	Regional agency / organization staff	Elected or appointed official	Federal agency staff	Municipal commission (volunteer)	Tribal member / government	Total
(updates and review of regulations, codes, and ordinances)													
Municipal climate resilience - Vulnerability assessment	7	1	5	0	2	5	1	1	0	0	1	0	23
Other municipal climate resilience topic you listed	0	1	0	0	1	1	0	0	0	0	0	0	3
Other topic you entered	1	1	0	1	1	1	1	0	0	0	0	0	6
Don't know	0	0	0	0	0	0	0	0	0	0	0	0	0
None of these	0	0	0	0	0	0	0	0	0	0	0	0	0
Don't know	6	3	0	4	0	2	0	0	0	0	1	0	16

**What are the most significant challenges you face in addressing these high priority issues? (Multiple Responses Allowed) (Frequency Giving Response)**

	I have not faced any challenges in addressing these issues	I lack the knowledge to address these issues	I am unsure where to access information on these topics	I am unsure of organizations that offer the training I need	There is too much or conflicting information on topics	There is not enough information on topics	My organization has capacity / staffing issues	Other	Don't know
Nonprofit staff	2	6	8	8	3	2	18	9	6
State agency staff	2	7	4	5	6	3	14	6	2
Municipal staff	5	4	3	4	2	0	6	2	4
Academia	1	9	3	3	1	1	3	5	5
Volunteer for conservation organization	0	5	2	2	2	1	9	3	2
Consultant	0	4	2	5	3	3	4	4	2
Land trust committee member	0	5	1	1	0	0	8	0	3
Regional agency / organization staff	1	3	1	3	0	0	3	1	1
Elected or appointed official	2	1	0	0	0	0	2	1	1
Federal agency staff	2	1	1	0	0	2	1	1	1
Municipal commission (volunteer)	0	1	3	3	3	0	1	0	1
Tribal member / government	1	0	2	1	0	1	1	0	0
<b>Total</b>	<b>16</b>	<b>46</b>	<b>30</b>	<b>35</b>	<b>20</b>	<b>13</b>	<b>70</b>	<b>32</b>	<b>28</b>

**MUNICIPAL ISSUES**

<b>For each of the following topics, please indicate what you think will be the biggest municipal management challenges you will face from each in the next 5 years: (Asked of municipal commission members or staff.) (Multiple Responses Allowed) (Frequency Giving Response)</b>								
	Sea level rise	Changes in precipitation events flooding, infrastructure vulnerability, stormwater management, etc.	Erosion (coastal)	Aging infrastructure (including dams)	Drought conditions—reservoirs depleted, lack of water for irrigation	Prolonged heat waves	Vector born diseases (mosquitoes)	None of these
Nonprofit staff	0	0	0	0	0	0	0	0
State agency staff	0	0	0	0	0	0	0	0
Municipal staff	13	14	5	8	2	5	1	2
Academia	1	1	0	1	0	0	0	0
Volunteer for conservation organization	1	2	1	1	0	0	1	0
Consultant	2	3	2	3	0	0	0	0
Land trust committee member	2	2	1	1	0	0	1	0
Regional agency / organization staff	0	0	0	0	0	0	0	0
Elected or appointed official	0	2	0	0	0	0	0	0
Federal agency staff	0	0	0	0	0	0	0	0
Municipal commission (volunteer)	3	3	1	3	3	2	0	0
Tribal member / government	0	0	0	0	0	0	0	0
<b>Total</b>	<b>22</b>	<b>27</b>	<b>10</b>	<b>17</b>	<b>5</b>	<b>7</b>	<b>3</b>	<b>2</b>

**In your opinion, which of the following coastal land use topics would be most beneficial for training at the local / municipal level? (Asked of municipal commission members or staff, land trust members, nonprofit staff, consultants, and volunteers.) (Multiple Responses Allowed) (Frequency Giving Response)**

	Coastal hazards management and planning for sea level rise	Water-dependent use prioritization at waterfront sites, including planning for public access	Protecting coastal resources such as dunes, tidal wetlands, bluffs/escarpments, and coastal water quality	Living shoreline techniques and allowing for tidal wetland migration	Designing rain gardens and vegetated buffers using native plant species	Overview of coastal area management regulations	Public access	Other	Don't know
Nonprofit staff	18	13	16	17	17	17	9	4	3
State agency staff	1	1	0	0	0	1	0	0	0
Municipal staff	12	1	7	8	7	8	4	2	1
Academia	3	0	3	1	1	2	0	0	0
Volunteer for conservation organization	8	7	8	6	4	8	5	0	2
Consultant	7	3	6	6	2	7	2	1	3
Land trust committee member	7	4	7	7	3	5	3	0	1
Regional agency / organization staff	1	2	1	1	1	1	1	0	0
Elected or appointed official	3	0	3	0	1	2	2	0	0
Federal agency staff	0	0	0	0	0	0	0	0	0
Municipal commission (volunteer)	3	2	2	1	1	3	4	0	0
Tribal member / government	1	1	1	0	1	0	0	0	0
Total	64	34	54	47	38	54	30	7	10

<b>Are you satisfied with the amount of coastal public access in the town where you work? (Asked of those who indicated that public access training would be beneficial.) (Frequency Giving Response)</b>			
	Yes	No	Don't know
Nonprofit staff	1	6	2
Municipal staff	2	2	0
Volunteer for conservation organization	0	5	0
Consultant	0	2	0
Land trust committee member	0	3	0
Regional agency / organization staff	0	0	1
Elected or appointed official	1	1	0
Municipal commission (volunteer)	1	2	1
Total	5	21	4

<b>Are there barriers to using existing public access sites or planning for new access sites in your community? (Frequency Giving Response)</b>				
	Yes, barriers to using existing public access sites	Yes, barriers to planning for new access sites in my community	No barriers to either	Don't know
Nonprofit staff	3	2	0	5
State agency staff	0	0	0	0
Municipal staff	2	2	1	0
Academia	0	0	0	0
Volunteer for conservation organization	3	3	0	0
Consultant	2	1	0	0
Land trust committee member	2	2	0	0
Regional agency / organization staff	0	0	0	1
Elected or appointed official	0	1	1	0
Federal agency staff	0	0	0	0
Municipal commission (volunteer)	1	2	0	1
Tribal member / government	0	0	0	0
Total	13	13	2	7

<b>Are you familiar with the online Coastal Public Access Guide? (Asked of those who indicated that public access training would be beneficial.) (Frequency Giving Response)</b>			
	Yes	No	Don't know
Municipal staff	6	14	0
Academia	0	1	0
Volunteer for conservation organization	1	1	0
Consultant	2	1	0
Elected or appointed official	1	1	0
Municipal commission (volunteer)	2	3	1
Land trust committee member	1	1	0
<b>Total</b>	<b>13</b>	<b>22</b>	<b>1</b>

**SKILL DEVELOPMENT NEEDS**

<b>Which type of skill-based training, if any, would be most beneficial to you in your current position? (Multiple Responses Allowed) (Frequency Giving Response)</b>											
	Meeting facilitation	Conducting interviews	Survey design	Project management	Leading focus groups	Economic valuation (benefit cost analysis, ecosystem services)	Stakeholder engagement	Building trust with communities	Other	Don't know	None of these
Nonprofit staff	13	5	15	14	13	23	13	18	1	3	2
State agency staff	8	1	3	8	4	9	10	10	1	2	6
Municipal staff	6	3	4	7	5	6	6	6	1	3	2
Academia	1	0	1	4	3	8	3	2	6	0	3
Volunteer for conservation organization	2	3	5	3	2	8	8	4	0	0	2
Consultant	2	1	3	3	1	8	2	1	2	0	2
Land trust committee member	2	0	2	6	0	4	7	4	0	0	2
Regional agency / organization staff	2	1	1	3	0	5	2	5	0	1	0
Elected or appointed official	0	0	0	0	0	0	1	1	2	0	3
Federal agency staff	1	0	0	2	0	3	2	2	0	0	2
Municipal commission (volunteer)	3	1	1	1	2	2	1	2	0	0	1
Tribal member / government	0	1	0	0	0	0	0	1	0	1	1
<b>Total</b>	<b>40</b>	<b>16</b>	<b>35</b>	<b>51</b>	<b>30</b>	<b>76</b>	<b>55</b>	<b>56</b>	<b>13</b>	<b>10</b>	<b>26</b>

What are the most significant challenges for you in participating in coastal decision making or management skill-based workshops / trainings / events? (Multiple Responses Allowed) (Frequency Giving Response)										
	Costs of participation	Lack of or limited staff or personnel	Coastal training is not supported by organization	Lack of time	Distance / travel required	Coastal training is not a top priority in my position	Conflicting priorities	Scheduling issues	Other	Don't know
Nonprofit staff	14	19	2	25	10	10	11	10	4	4
State agency staff	6	14	1	16	4	7	9	6	3	1
Municipal staff	4	11	1	8	2	6	6	5	1	1
Academia	5	5	0	8	1	1	6	5	1	3
Volunteer for conservation organization	4	5	1	7	2	4	3	3	3	2
Consultant	2	6	0	6	1	2	5	4	3	2
Land trust committee member	3	5	0	5	1	4	5	2	1	3
Regional agency / organization staff	0	1	0	3	2	3	2	1	1	1
Elected or appointed official	1	2	0	1	0	4	2	1	0	0
Federal agency staff	2	2	0	0	1	3	3	1	0	0
Municipal commission (volunteer)	2	3	0	3	0	2	1	1	0	0
Tribal member / government	2	2	0	1	1	1	0	0	0	0
Total	45	75	5	83	25	47	53	39	17	17

<b>Have you ever participated in a training (e.g., a workshop, technical assistance, site visit) conducted by the Reserve? (Frequency Giving Response)</b>			
	Yes	No	Don't know
Nonprofit staff	19	21	1
State agency staff	11	16	2
Municipal staff	5	14	1
Academia	6	13	0
Volunteer for conservation organization	8	6	2
Consultant	4	8	2
Land trust committee member	6	5	1
Regional agency / organization staff	3	5	0
Elected or appointed official	1	4	1
Federal agency staff	3	3	1
Municipal commission (volunteer)	3	3	1
Tribal member / government	2	1	0
<b>Total</b>	<b>71</b>	<b>99</b>	<b>12</b>

<b>How interested are you in attending a coastal training? Would you say you are very, somewhat, a little, or not at all interested? (Frequency Giving Response)</b>					
	Very interested	Somewhat interested	A little interested	Not all interested	Don't know
Nonprofit staff	19	10	10	0	2
State agency staff	12	12	4	1	0
Municipal staff	8	10	1	1	0
Academia	6	8	3	1	1
Volunteer for conservation organization	10	4	2	0	0
Consultant	6	5	3	0	0
Land trust committee member	7	2	3	0	0
Regional agency / organization staff	3	3	2	0	0
Elected or appointed official	1	3	1	1	0
Federal agency staff	3	3	1	0	0
Municipal commission (volunteer)	3	1	3	0	0
Tribal member / government	2	1	0	0	0
<b>Total</b>	<b>80</b>	<b>62</b>	<b>33</b>	<b>4</b>	<b>3</b>

<b>What are the main reasons you are NOT more interested in receiving coastal training? (Asked of those who are not very interested in coastal training.) (Multiple Responses Allowed) (Frequency Giving Response)</b>							
	Do not need coastal training	My coastal decision-making responsibilities do not require it	Do not have time for coastal training	Do not have funds for coastal training	Coastal trainings are not supported by my agency, organization, or entity	Other	Don't know
Nonprofit staff	3	9	7	3	0	6	0
State agency staff	3	6	5	0	0	6	0
Municipal staff	3	2	4	1	0	2	1
Academia	1	1	7	2	0	3	0
Volunteer for conservation organization	0	2	0	1	2	1	0
Consultant	2	2	1	0	1	3	0
Land trust committee member	1	2	0	0	1	1	0
Regional agency / organization staff	1	4	2	1	0	0	0
Elected or appointed official	1	2	0	0	1	1	1
Federal agency staff	0	0	1	1	0	2	0
Municipal commission (volunteer)	0	3	2	0	1	0	0
Tribal member / government	0	0	1	0	0	0	0
<b>Total</b>	<b>15</b>	<b>33</b>	<b>30</b>	<b>9</b>	<b>6</b>	<b>25</b>	<b>2</b>

What organizations typically provide you with training on coastal management topics? If none, enter none. (Multiple Responses Allowed) (Frequency Giving Response)																	
	None	CT Department of Energy and Environmental Protection	National Oceanic and Atmospheric Administration	University of Connecticut; most commonly this is Avery Point campus	CT National Estuarine Research Reserve	Sea Grant	Northeast Maritime Online	CT Institute for Resilience and Climate Adaptation	US Environmental Protection Agency	Long Island Sound Study / Long Island Sound Partnership	CT Audubon	Eastern CT Conservation District	Groton Long Point Association	The Nature Conservancy	Save the Sound	Organization named by one person	Don't know / no response
Nonprofit staff	14	3	4	2	4	2		1		1					1	6	3
State agency staff	15	5	7		2				3		2					6	1
Municipal staff	8	4		2	1		2	2		1	1			1	1	2	
Academia	10	2	3	1	3	2	2	1								4	
Volunteer for conservation organization	8	2	1	1		1						1	1			4	1
Consultant	4		1	1		1	1	2								5	
Land trust committee member	6	2		2	1	2						1	2			1	
Regional agency / organization staff	6	1	1			1				1						1	
Elected or appointed official	2	2															
Federal agency staff	5								1								1
Municipal commission (volunteer)	3										1	1		1	1	2	
Tribal member / government	1		1													2	
Total	82	21	18	9	11	9	5	6	4	3	4	3	3	2	3	33	6

**TRAINING PREFERENCES**

<b>How long are you willing to travel for a training event, such as a workshop or site visit? (Frequency Giving Response)</b>					
	Not willing to or cannot travel for coastal training	Less than 30 minutes	31 to 60 minutes	More than 60 minutes	No preference
Nonprofit staff	5	3	19	9	5
State agency staff	0	0	18	4	7
Municipal staff	2	4	13	0	0
Academia	0	2	9	3	5
Volunteer for conservation organization	0	4	6	6	0
Consultant	1	0	9	3	1
Land trust committee member	0	4	7	1	0
Regional agency / organization staff	1	2	3	2	0
Elected or appointed official	0	2	4	0	0
Federal agency staff	0	0	3	4	0
Municipal commission (volunteer)	0	3	4	0	0
Tribal member / government	0	1	0	2	0
<b>Total</b>	<b>9</b>	<b>25</b>	<b>95</b>	<b>34</b>	<b>18</b>

Do you prefer in-person classroom events, in-person field trips, or virtual events? (Frequency Giving Response)					
	In-person event – classroom	In-person event – field trip	Virtual event (i.e., online, such as a webinar or Zoom meeting)	Other	No preference
Nonprofit staff	8	17	8	1	7
State agency staff	3	13	5	1	7
Municipal staff	2	10	3	1	3
Academia	3	12	2	1	1
Volunteer for conservation organization	0	9	4	0	3
Consultant	0	8	3	0	3
Land trust committee member	0	9	2	0	1
Regional agency / organization staff	3	3	2	0	0
Elected or appointed official	0	3	2	0	1
Federal agency staff	3	3	0	0	1
Municipal commission (volunteer)	0	3	4	0	0
Tribal member / government	0	1	1	1	0
Total	22	91	36	5	27

<b>Which of the following timeframes do you most prefer for in-person coastal training events? (Frequency Giving Response)</b>				
	Half day (3 to 4 hours)	Full day (7 to 8 hours)	Multiple days	No preference
Nonprofit staff	31	1	2	6
State agency staff	18	7	0	4
Municipal staff	12	3	1	3
Academia	10	2	1	5
Volunteer for conservation organization	12	0	2	2
Consultant	7	3	1	3
Land trust committee member	9	1	0	2
Regional agency / organization staff	5	2	0	1
Elected or appointed official	3	1	0	1
Federal agency staff	2	3	0	1
Municipal commission (volunteer)	6	0	0	0
Tribal member / government	1	0	1	1
<b>Total</b>	<b>116</b>	<b>23</b>	<b>8</b>	<b>29</b>

<b>For training events either in-person or online that are 4 hours or less, do you prefer morning, afternoon, or evening sessions? (Frequency Giving Response)</b>					
	Morning	Afternoon	Evening	No preference	Don't know
Nonprofit staff	24	11	1	10	0
State agency staff	20	8	1	4	0
Municipal staff	11	3	1	3	0
Academia	12	3	1	4	0
Volunteer for conservation organization	8	5	5	2	0
Consultant	8	2	2	4	0
Land trust committee member	6	2	3	2	0
Regional agency / organization staff	6	2	0	1	0
Elected or appointed official	2	0	2	1	0
Federal agency staff	4	3	0	1	0
Municipal commission (volunteer)	3	3	0	1	0
Tribal member / government	1	2	0	1	0
<b>Total</b>	<b>105</b>	<b>44</b>	<b>16</b>	<b>34</b>	<b>0</b>

<b>In which of the following seasons do you like to attend coastal training events? (Frequency Giving Response)</b>						
	Spring	Summer	Fall	Winter	No preference	Don't know
Nonprofit staff	9	4	17	17	15	1
State agency staff	5	7	7	11	12	0
Municipal staff	5	3	6	3	11	0
Academia	4	5	5	3	10	0
Volunteer for conservation organization	3	4	3	6	8	0
Consultant	2	1	3	3	8	0
Land trust committee member	2	1	3	4	7	0
Regional agency / organization staff	3	1	2	2	4	0
Elected or appointed official	1	1	1	4	1	0
Federal agency staff	2	1	5	3	2	0
Municipal commission (volunteer)	0	1	3	0	3	0
Tribal member / government	1	1	1	0	2	0
<b>Total</b>	<b>37</b>	<b>30</b>	<b>56</b>	<b>56</b>	<b>83</b>	<b>1</b>

<b>Please rate each of the following in terms of their value to you as part of a coastal training event, on a scale of 1 to 3, where 1 is no value at all and 3 is extremely valuable: (Mean ratings)</b>					
	Site visits or demonstrations (in-person only)	In-person half or full day workshop	Webinars	Panel or roundtable discussions	Small group break-out activities
Nonprofit staff	2.74	2.73	2.49	2.17	2.16
State agency staff	2.79	2.62	2.24	2.17	2.07
Municipal staff	2.61	2.65	2.22	2.12	2.17
Academia	2.83	2.68	2.22	2.24	2.50
Volunteer for conservation organization	2.79	2.50	2.57	2.21	2.07
Consultant	2.83	2.77	2.54	2.23	2.31
Land trust committee member	2.73	2.55	2.60	2.00	1.80
Regional agency / organization staff	2.63	2.75	2.13	2.38	2.67
Elected or appointed official	1.83	1.83	2.17	1.67	1.33
Federal agency staff	3.00	2.86	2.29	2.29	2.43
Municipal commission (volunteer)	2.43	2.71	2.43	2.43	2.17
Tribal member / government	2.67	2.67	3.00	2.67	2.67
Total	2.72	2.64	2.38	2.19	2.17

Are there any incentives that would encourage you to attend workshops / trainings / events? (Multiple Responses Allowed) (Frequency Giving Response)											
	Professional development hours	Continuing Education Units (CEUs)	American Planning Association (APA) / American Institute of Certified Planners (AICP) credits	The Association of State Floodplain Managers (ASFPM) credits	Monetary stipends	Transportation	Childcare services	Food and drinks	Other	Don't know	None of these
Nonprofit staff	9	3	1	0	13	8	2	20	2	3	11
State agency staff	3	0	0	0	1	3	0	7	6	4	13
Municipal staff	3	5	3	1	1	0	0	4	0	1	6
Academia	1	1	1	0	5	3	2	8	0	3	6
Volunteer for conservation organization	4	2	1	1	3	3	1	8	2	1	2
Consultant	3	6	3	1	1	1	1	5	3	0	1
Land trust committee member	2	0	0	0	2	1	0	6	2	1	1
Regional agency / organization staff	3	1	1	2	1	0	1	3	1	0	1
Elected or appointed official	1	1	0	0	1	0	0	2	1	0	2
Federal agency staff	0	1	0	0	1	0	0	1	0	0	5
Municipal commission (volunteer)	2	3	0	0	0	1	1	0	0	1	2
Tribal member / government	1	1	0	0	2	1	0	2	0	0	0
Total	32	24	10	5	31	21	8	66	17	14	50

## INFORMATION FROM CT-NEER

In which of the following ways do you like to receive information about coastal training and education opportunities, announcements, and updates? (Multiple Responses Allowed) (Frequency Giving Response)								
	Do not need to receive information	Direct mail (if willing, please share mailing address)	Direct email (if willing, please share email address)	Social media (please specify platforms / apps)	Community or network listserv (please specify, which listserv)	Website events page	Other	Don't know
Nonprofit staff	7	3	30	4	3	7	0	1
State agency staff	2	3	20	1	2	9	0	1
Municipal staff	1	2	15	2	3	2	0	0
Academia	2	0	12	4	4	5	2	1
Volunteer for conservation organization	1	3	11	3	3	5	1	0
Consultant	2	2	11	3	1	4	2	0
Land trust committee member	2	1	7	2	1	5	0	0
Regional agency / organization staff	2	1	4	0	2	2	0	0
Elected or appointed official	0	0	4	0	0	2	0	0
Federal agency staff	0	0	6	1	0	0	0	0
Municipal commission (volunteer)	0	2	6	3	0	3	0	0
Tribal member / government	0	1	3	1	1	1	0	0
Total	19	18	129	24	20	45	5	3

## EDUCATION MARKET ANALYSIS

What audiences does your educational programming serve? (Asked of educators and/or those who serve educators.) (Multiple Responses Allowed) (Frequency Giving Response)														
	Pre-K / K	Elementary (grades 1-4)	Middle school (grades 5-8)	High school (grades 9-12)	Homeschool educators and/or students	Community college	4-year college or university	Regional or school system (multiple grade and learning levels)	Public (youth under the age of 18)	Public (adults over the age of 18)	Nonformal educators	Formal educators	Other	Don't know
Nonprofit staff	17	26	25	26	19	21	23	18	29	32	19	22	8	0
State agency staff	4	7	7	7	7	8	7	7	14	16	8	6	3	1
Municipal staff	0	2	2	4	1	2	1	1	8	11	1	1	1	2
Academia	4	7	11	13	4	3	19	4	7	12	11	11	4	1
Volunteer for conservation organization	1	3	3	3	2	1	4	3	8	11	1	1	1	0
Consultant	0	1	2	2	1	1	2	1	3	5	0	0	2	0
Land trust committee member	1	4	3	2	1	2	1	2	4	7	1	1	1	0
Regional agency / organization staff	0	1	1	1	1	1	3	2	3	4	1	2	1	0
Elected or appointed official	1	1	1	1	0	0	1	0	2	4	0	0	1	0
Federal agency staff	0	0	0	1	0	0	1	0	1	1	1	1	0	0
Municipal commission (volunteer)	1	1	1	1	0	0	1	0	1	3	0	0	0	1
Tribal member / government	1	1	1	1	1	0	0	0	1	1	0	0	0	0
Total	30	54	57	62	37	39	63	38	81	107	43	45	22	5

For each of the audiences you serve, please indicate if you provide programs or activities for each of the following topics: (Asked of those who provide educational programming to one or more of the listed audiences.) (Pre K / K) (Multiple Responses Allowed) (Frequency Giving Response)											
	Estuary science	Emerging contaminants	Emotional connection to nature	Nature-inspired art	Cultural history	Marine debris	Habitats / restoration	Fisheries / wildlife ecology	Coastal hazards	Watersheds	I don't provide programs or activities on any of these topics for this audience: Pre K / K
Nonprofit staff	9	1	11	12	4	8	9	9	3	8	2
State agency staff	0	0	1	1	1	0	1	2	0	1	1
Municipal staff	0	0	0	0	0	0	0	0	0	0	0
Academia	2	0	1	0	0	1	2	2	1	1	1
Volunteer for conservation organization	1	0	1	1	1	1	1	1	1	1	0
Consultant	0	0	0	0	0	0	0	0	0	0	0
Land trust committee member	1	0	1	1	0	1	1	1	0	1	0
Regional agency / organization staff	0	0	0	0	0	0	0	0	0	0	0
Elected or appointed official	1	0	0	0	0	0	0	0	0	0	0
Federal agency staff	0	0	0	0	0	0	0	0	0	0	0
Municipal commission (volunteer)	0	0	0	0	0	0	1	0	0	1	0
Tribal member / government	1	0	1	1	1	1	1	1	1	1	0
Total	15	1	16	16	7	12	16	16	6	14	4

For each of the audiences you serve, please indicate if you provide programs or activities for each of the following topics: (Asked of those who provide educational programming to one or more of the listed audiences.) (Elementary (grades 1-4)) (Multiple Responses Allowed) (Frequency Giving Response)											
	Estuary science	Emerging contaminants	Emotional connection to nature	Nature-inspired art	Cultural history	Marine debris	Habitats / restoration	Fisheries / wildlife ecology	Coastal hazards	Watersheds	I don't provide programs or activities on any of these topics for this audience
Nonprofit staff	14	2	14	14	10	11	16	16	6	19	2
State agency staff	1	0	5	2	1	1	3	4	0	2	1
Municipal staff	0	0	0	0	0	0	1	1	0	2	0
Academia	3	0	1	0	0	2	3	2	1	3	1
Volunteer for conservation organization	2	1	3	2	2	2	2	2	1	2	0
Consultant	0	0	0	0	0	0	1	1	0	1	0
Land trust committee member	1	0	3	1	0	1	2	2	1	2	0
Regional agency / organization staff	0	0	0	0	1	1	1	1	0	1	0
Elected or appointed official	0	0	0	0	0	0	0	0	0	0	1
Federal agency staff	0	0	0	0	0	0	0	0	0	0	0
Municipal commission (volunteer)	0	0	0	0	0	0	1	0	0	1	0
Tribal member / government	1	0	1	1	1	1	1	1	1	1	0
Total	22	3	27	20	15	19	31	30	10	34	5

For each of the audiences you serve, please indicate if you provide programs or activities for each of the following topics: (Asked of those who provide educational programming to one or more of the listed audiences.) (Middle school (grades 5-8)) (Multiple Responses Allowed) (Frequency Giving Response)												
	Estuary science	Emerging contaminants	Emotional connection to nature	Nature-inspired art	Cultural history	Marine debris	Habitats / restoration	Fisheries / wildlife ecology	Coastal hazards	Watersheds	I don't provide programs or activities on any of these topics for this audience	
Nonprofit staff	15	3	14	14	10	12	17	19	10	19	1	
State agency staff	2	0	4	3	1	2	5	4	0	2	1	
Municipal staff	0	0	0	0	0	0	1	1	0	2	0	
Academia	7	1	2	2	2	4	5	2	3	7	0	
Volunteer for conservation organization	2	1	2	2	2	1	2	2	1	3	0	
Consultant	0	0	0	0	0	0	1	1	0	2	0	
Land trust committee member	1	0	2	1	0	1	2	2	1	2	0	
Regional agency / organization staff	0	0	0	0	1	1	1	1	0	1	0	
Elected or appointed official	0	0	0	0	0	0	0	0	0	0	1	
Federal agency staff	0	0	0	0	0	0	0	0	0	0	0	
Municipal commission (volunteer)	0	0	0	0	0	0	1	0	0	1	0	
Tribal member / government	1	0	1	1	1	0	1	1	1	1	0	
Total	28	5	25	23	17	21	36	33	16	40	3	

For each of the audiences you serve, please indicate if you provide programs or activities for each of the following topics: (Asked of those who provide educational programming to one or more of the listed audiences.) (High School (grades 9-12)) (Multiple Responses Allowed) (Frequency Giving Response)												
	Estuary science	Emerging contaminants	Emotional connection to nature	Nature-inspired art	Cultural history	Marine debris	Habitats / restoration	Fisheries / wildlife ecology	Coastal hazards	Watersheds	I don't provide programs or activities on any of these topics for this audience	
Nonprofit staff	15	5	12	11	11	12	17	19	11	20	1	
State agency staff	3	0	4	2	2	2	5	4	1	5	1	
Municipal staff	0	0	1	0	0	0	2	2	0	3	0	
Academia	7	2	3	2	3	4	7	6	4	8	2	
Volunteer for conservation organization	1	1	2	1	2	1	1	2	0	2	0	
Consultant	0	0	0	0	0	0	1	1	0	2	0	
Land trust committee member	1	1	1	1	0	1	2	2	1	2	0	
Regional agency / organization staff	0	0	0	0	1	1	1	1	0	1	0	
Elected or appointed official	0	0	0	0	0	0	0	0	0	0	1	
Federal agency staff	0	0	0	0	0	0	0	0	0	0	1	
Municipal commission (volunteer)	1	0	0	0	0	0	1	0	0	1	0	
Tribal member / government	0	0	1	1	1	0	0	1	0	0	0	
Total	28	9	24	18	20	21	37	38	17	44	6	

For each of the audiences you serve, please indicate if you provide programs or activities for each of the following topics: (Asked of those who provide educational programming to one or more of the listed audiences.) (Homeschool educators and/or students) (Multiple Responses Allowed) (Frequency Giving Response)											
	Estuary science	Emerging contaminants	Emotional connection to nature	Nature-inspired art	Cultural history	Marine debris	Habitats / restoration	Fisheries / wildlife ecology	Coastal hazards	Watersheds	I don't provide programs or activities on any of these topics for this audience
Nonprofit staff	11	5	11	12	9	9	11	13	6	13	2
State agency staff	1	0	4	1	1	0	5	5	0	2	1
Municipal staff	0	0	0	0	0	0	0	0	0	1	0
Academia	2	0	3	1	0	1	3	3	1	2	0
Volunteer for conservation organization	0	0	1	1	1	0	0	1	0	1	0
Consultant	0	0	0	0	0	0	0	0	0	1	0
Land trust committee member	1	1	1	1	0	1	1	1	1	1	0
Regional agency / organization staff	0	0	0	0	1	1	1	1	0	1	0
Elected or appointed official	0	0	0	0	0	0	0	0	0	0	0
Federal agency staff	0	0	0	0	0	0	0	0	0	0	0
Municipal commission (volunteer)	0	0	0	0	0	0	0	0	0	0	0
Tribal member / government	0	0	1	1	1	0	0	1	0	0	0
Total	15	6	21	17	13	12	21	25	8	22	3

For each of the audiences you serve, please indicate if you provide programs or activities for each of the following topics: (Asked of those who provide educational programming to one or more of the listed audiences.) (Community College) (Multiple Responses Allowed) (Frequency Giving Response)												
	Estuary science	Emerging contaminants	Emotional connection to nature	Nature-inspired art	Cultural history	Marine debris	Habitats / restoration	Fisheries / wildlife ecology	Coastal hazards	Watersheds	I don't provide programs or activities on any of these topics for this audience	
Nonprofit staff	13	5	9	7	7	10	18	17	11	18	0	
State agency staff	3	0	5	1	1	2	4	3	1	5	2	
Municipal staff	0	0	0	0	0	0	1	1	0	2	0	
Academia	2	1	0	1	1	1	1	1	1	2	0	
Volunteer for conservation organization	1	0	1	0	0	1	0	0	0	1	0	
Consultant	0	0	0	0	0	0	1	1	0	1	0	
Land trust committee member	1	1	1	1	0	1	2	2	1	2	0	
Regional agency / organization staff	0	0	0	0	1	1	1	1	0	1	0	
Elected or appointed official	0	0	0	0	0	0	0	0	0	0	0	
Federal agency staff	0	0	0	0	0	0	0	0	0	0	0	
Municipal commission (volunteer)	0	0	0	0	0	0	0	0	0	0	0	
Tribal member / government	0	0	0	0	0	0	0	0	0	0	0	
Total	20	7	16	10	10	16	28	26	14	32	2	

For each of the audiences you serve, please indicate if you provide programs or activities for each of the following topics: (Asked of those who provide educational programming to one or more of the listed audiences.) (4-year college or university) (Multiple Responses Allowed) (Frequency Giving Response)											
	Estuary science	Emerging contaminants	Emotional connection to nature	Nature-inspired art	Cultural history	Marine debris	Habitats / restoration	Fisheries / wildlife ecology	Coastal hazards	Watersheds	I don't provide programs or activities on any of these topics for this audience
Nonprofit staff	14	6	6	5	6	10	16	18	12	15	1
State agency staff	3	0	5	1	1	2	4	3	1	5	1
Municipal staff	0	0	0	0	0	0	0	0	0	1	0
Academia	9	2	3	4	3	6	12	10	5	10	3
Volunteer for conservation organization	3	2	2	1	3	1	2	1	2	3	0
Consultant	1	1	0	1	2	0	1	0	1	1	0
Land trust committee member	1	1	1	1	0	1	1	1	1	1	0
Regional agency / organization staff	1	0	0	0	1	1	2	2	0	2	1
Elected or appointed official	0	0	0	0	0	0	0	0	0	0	1
Federal agency staff	0	0	0	0	0	0	0	0	0	0	1
Municipal commission (volunteer)	1	1	0	0	1	0	1	0	1	1	0
Tribal member / government	0	0	0	0	0	0	0	0	0	0	0
Total	33	13	17	13	17	21	39	35	23	39	8

For each of the audiences you serve, please indicate if you provide programs or activities for each of the following topics: (Asked of those who provide educational programming to one or more of the listed audiences.) (Regional or school system) (Multiple Responses Allowed) (Frequency Giving Response)											
	Estuary science	Emerging contaminants	Emotional connection to nature	Nature-inspired art	Cultural history	Marine debris	Habitats / restoration	Fisheries / wildlife ecology	Coastal hazards	Watersheds	I don't provide programs or activities on any of these topics for this audience
Nonprofit staff	14	5	10	10	7	10	12	12	8	12	2
State agency staff	2	0	4	1	1	2	3	3	0	3	1
Municipal staff	0	0	0	0	0	0	0	0	0	1	0
Academia	1	0	1	0	0	1	2	1	1	1	1
Volunteer for conservation organization	1	1	1	0	0	1	2	0	1	1	0
Consultant	0	1	0	0	0	0	1	0	1	0	0
Land trust committee member	1	1	1	1	0	1	2	1	1	1	0
Regional agency / organization staff	2	1	0	0	0	1	2	0	1	0	0
Elected or appointed official	0	0	0	0	0	0	0	0	0	0	0
Federal agency staff	0	0	0	0	0	0	0	0	0	0	0
Municipal commission (volunteer)	0	0	0	0	0	0	0	0	0	0	0
Tribal member / government	0	0	0	0	0	0	0	0	0	0	0
Total	21	9	17	12	8	16	24	17	13	19	4

For each of the audiences you serve, please indicate if you provide programs or activities for each of the following topics: (Asked of those who provide educational programming to one or more of the listed audiences.) (Public (youth under the age of 18)) (Multiple Responses Allowed) (Frequency Giving Response)												
	Estuary science	Emerging contaminants	Emotional connection to nature	Nature-inspired art	Cultural history	Marine debris	Habitats / restoration	Fisheries / wildlife ecology	Coastal hazards	Watersheds	I don't provide programs or activities on any of these topics for this audience	
Nonprofit staff	16	8	14	14	10	13	17	17	8	18	3	
State agency staff	4	0	6	3	3	1	7	8	1	7	4	
Municipal staff	1	1	2	1	1	1	2	1	2	3	1	
Academia	2	0	1	1	2	3	5	2	1	3	0	
Volunteer for conservation organization	3	2	4	5	5	3	5	5	3	6	0	
Consultant	0	0	0	1	1	1	2	1	1	2	0	
Land trust committee member	2	2	3	3	2	3	4	3	2	3	0	
Regional agency / organization staff	2	1	1	1	2	2	3	2	1	1	0	
Elected or appointed official	0	0	0	0	0	1	1	0	0	0	0	
Federal agency staff	0	0	0	0	0	0	0	0	0	0	1	
Municipal commission (volunteer)	0	0	0	1	0	0	1	1	1	1	0	
Tribal member / government	0	0	1	1	1	0	0	1	0	0	0	
Total	30	14	32	31	27	28	47	41	20	44	9	

For each of the audiences you serve, please indicate if you provide programs or activities for each of the following topics: (Asked of those who provide educational programming to one or more of the listed audiences.) (Public (adults over the age of 18)) (Multiple Responses Allowed) (Frequency Giving Response)											
	Estuary science	Emerging contaminants	Emotional connection to nature	Nature-inspired art	Cultural history	Marine debris	Habitats / restoration	Fisheries / wildlife ecology	Coastal hazards	Watersheds	I don't provide programs or activities on any of these topics for this audience
Nonprofit staff	19	8	15	14	11	14	26	24	11	20	1
State agency staff	5	1	8	3	5	4	10	9	5	8	2
Municipal staff	1	3	1	1	1	1	4	3	4	7	1
Academia	4	1	2	1	2	4	9	7	3	5	0
Volunteer for conservation organization	4	5	6	6	6	6	8	7	4	8	0
Consultant	0	2	0	1	1	1	3	3	2	4	1
Land trust committee member	3	5	4	4	3	5	7	5	3	5	0
Regional agency / organization staff	2	2	0	1	1	2	4	2	2	2	0
Elected or appointed official	1	3	0	0	0	2	3	2	2	2	0
Federal agency staff	0	0	0	0	0	0	0	0	0	0	1
Municipal commission (volunteer)	1	1	0	1	0	0	3	3	1	3	0
Tribal member / government	0	0	1	1	1	0	0	1	0	0	0
Total	40	31	37	33	31	39	77	66	37	64	6

For each of the audiences you serve, please indicate if you provide programs or activities for each of the following topics: (Asked of those who provide educational programming to one or more of the listed audiences.) (Nonformal educators) (Multiple Responses Allowed) (Frequency Giving Response)											
	Estuary science	Emerging contaminants	Emotional connection to nature	Nature-inspired art	Cultural history	Marine debris	Habitats / restoration	Fisheries / wildlife ecology	Coastal hazards	Watersheds	I don't provide programs or activities on any of these topics for this audience
Nonprofit staff	13	7	11	11	7	9	12	13	8	14	1
State agency staff	2	0	4	1	1	0	6	5	0	2	2
Municipal staff	0	0	0	0	0	0	0	0	0	1	0
Academia	6	0	1	0	0	3	7	5	3	6	0
Volunteer for conservation organization	1	1	1	1	1	1	1	1	1	1	0
Consultant	0	0	0	0	0	0	0	0	0	0	0
Land trust committee member	1	1	1	1	0	1	1	1	1	1	0
Regional agency / organization staff	0	0	0	0	0	0	0	0	0	0	1
Elected or appointed official	0	0	0	0	0	0	0	0	0	0	0
Federal agency staff	0	0	0	0	0	0	0	0	0	0	1
Municipal commission (volunteer)	0	0	0	0	0	0	0	0	0	0	0
Tribal member / government	0	0	0	0	0	0	0	0	0	0	0
Total	23	9	18	14	9	14	27	25	13	25	5

For each of the audiences you serve, please indicate if you provide programs or activities for each of the following topics: (Asked of those who provide educational programming to one or more of the listed audiences.) (Formal educators) (Multiple Responses Allowed) (Frequency Giving Response)											
	Estuary science	Emerging contaminants	Emotional connection to nature	Nature-inspired art	Cultural history	Marine debris	Habitats / restoration	Fisheries / wildlife ecology	Coastal hazards	Watersheds	I don't provide programs or activities on any of these topics for this audience
Nonprofit staff	14	7	10	11	6	9	12	13	9	15	1
State agency staff	3	0	4	1	1	1	5	3	1	3	1
Municipal staff	0	0	0	0	0	0	0	0	0	1	0
Academia	8	0	2	1	2	3	6	3	3	7	1
Volunteer for conservation organization	1	1	1	1	1	1	1	1	1	1	0
Consultant	0	0	0	0	0	0	0	0	0	0	0
Land trust committee member	1	1	1	1	0	1	1	1	1	1	0
Regional agency / organization staff	1	0	0	0	0	0	1	0	0	0	1
Elected or appointed official	0	0	0	0	0	0	0	0	0	0	0
Federal agency staff	0	0	0	0	0	0	0	0	0	0	1
Municipal commission (volunteer)	0	0	0	0	0	0	0	0	0	0	0
Tribal member / government	0	0	0	0	0	0	0	0	0	0	0
Total	28	9	18	15	10	15	26	21	15	28	5

Does your and/or your organization's educational programming provide any of the following? (Asked of those who provide educational programming to any audience.) (Multiple Responses Allowed) (Frequency Giving Response)																	
	Off-site field-based programs	Classroom programs	On-site schoolyard programs	Lab-based programs	Lesson plans or classroom resources	Activities for people with disabilities	Teacher or formal educator training or workshops	Internship opportunities (under 18)	Internship opportunities (18+)	Volunteer opportunities (under 18)	Volunteer opportunities (18+)	Data collection opportunities	Programs that align with the Next Generation Science Standards	Materials for loan, such as thematic trunks, water testing kits, etc.	Other	Don't know	None of these
Nonprofit staff	28	28	22	9	22	16	16	17	31	28	35	25	21	6	3	0	1
State agency staff	15	9	4	1	7	5	9	4	11	7	14	9	4	8	2	0	1
Municipal staff	4	3	0	1	0	0	0	3	4	6	7	4	0	1	0	0	6
Academia	16	16	5	8	11	2	10	1	11	2	10	10	13	1	5	0	1
Volunteer for conservation organization	7	4	4	1	3	2	1	4	4	8	9	5	1	2	3	0	0
Consultant	2	2	3	1	1	1	0	1	2	5	5	0	1	0	3	0	1
Land trust committee member	8	3	1	1	1	2	0	2	2	5	7	3	1	1	3	0	0
Regional agency / organization staff	4	2	1	0	3	1	2	3	4	3	3	1	2	0	0	0	0
Elected or appointed official	2	2	0	0	0	0	0	1	1	1	1	0	0	0	2	0	1
Federal agency staff	1	1	0	1	0	0	1	0	1	0	0	1	0	1	0	0	0
Municipal commission (volunteer)	2	2	2	0	0	0	0	0	1	1	2	1	0	1	0	0	0
Tribal member / government	0	1	1	0	1	0	0	1	0	1	1	1	1	1	0	0	0
Total	89	73	43	23	49	29	39	37	72	67	94	60	44	22	21	0	11

<b>From the following list, please select any Reserve sites that have been used or are currently being used in your educational programming. (Asked of those who provide educational programming to any audience.) (Multiple Responses Allowed) (Frequency Giving Response)</b>								
	Haley Farm State Park (Groton, CT)	Bluff Point State Park (Groton, CT)	Thames River (or shoreline)	Connecticut River (or shoreline)	Other state park within boundary	Other sites within boundary	Don't know	None of these
Nonprofit staff	4	17	11	9	4	9	3	16
State agency staff	5	8	5	8	4	3	3	4
Municipal staff	1	1	0	2	0	3	1	6
Academia	2	7	6	4	2	2	2	10
Volunteer for conservation organization	4	5	2	5	0	0	0	5
Consultant	1	1	0	2	0	2	0	2
Land trust committee member	3	4	2	3	0	1	0	4
Regional agency / organization staff	0	1	0	0	0	0	1	2
Elected or appointed official	0	1	0	1	0	0	0	2
Federal agency staff	0	0	0	0	0	0	0	1
Municipal commission (volunteer)	2	2	0	0	0	0	0	2
Tribal member / government	0	1	1	0	0	0	0	0
<b>Total</b>	<b>22</b>	<b>48</b>	<b>27</b>	<b>34</b>	<b>10</b>	<b>20</b>	<b>10</b>	<b>54</b>

<b>Does your agency, organization, or entity offer any incentives for participating in your educational programming? (Asked of educators and/or those who serve educators.) (Frequency Giving Response)</b>				
	Yes, we currently offer incentives	Yes, we do not currently offer incentives but we have in the past	No	Don't know
Nonprofit staff	11	2	23	5
State agency staff	3	0	10	4
Municipal staff	4	0	8	1
Academia	5	1	11	5
Volunteer for conservation organization	3	0	7	3
Consultant	0	0	6	1
Land trust committee member	2	1	7	1
Regional agency / organization staff	1	0	1	2
Elected or appointed official	0	0	3	1
Federal agency staff	0	0	1	0
Municipal commission (volunteer)	0	0	3	1
Tribal member / government	0	0	0	1
<b>Total</b>	<b>29</b>	<b>4</b>	<b>80</b>	<b>25</b>

**DEMOGRAPHIC CHARACTERISTICS**

<b>What is your age? (Frequency Giving Response)</b>								
	65 years old or older	55-64 years old	45-54 years old	35-44 years old	25-34 years old	18-24 years old	Under 18 years old	Don't know
Nonprofit staff	3	9	7	11	5	1	0	11
State agency staff	1	6	10	6	4	2	0	5
Municipal staff	1	5	4	3	3	0	1	10
Academia	4	5	4	2	3	0	1	8
Volunteer for conservation organization	6	3	2	3	0	0	0	3
Consultant	2	5	4	1	1	0	0	2
Land trust committee member	3	3	1	1	2	0	0	3
Regional agency / organization staff	1	1	2	1	0	1	0	4
Elected or appointed official	1	4	0	0	0	0	0	3
Federal agency staff	2	2	2	1	0	0	0	0
Municipal commission (volunteer)	2	2	2	1	0	0	0	0
Tribal member / government	1	0	1	0	1	0	0	0
<b>Total</b>	<b>27</b>	<b>45</b>	<b>39</b>	<b>30</b>	<b>19</b>	<b>4</b>	<b>2</b>	<b>49</b>

What race or ethnic background do you consider yourself? (Multiple Responses Allowed) (Frequency Giving Response)										
	White or Caucasian	Black or African American	Hispanic or Latino	American Indian/Indigenous	Middle Eastern	East Asian (from Japan, China, Korea, Philippines, etc.)	South Asian (from India, Pakistan, Bangladesh, etc.)	Other	Don't know	Prefer not to answer
Nonprofit staff	33	1	2	1	0	1	0	0	1	3
State agency staff	26	0	0	0	0	0	0	0	0	3
Municipal staff	13	1	1	0	0	0	0	1	0	2
Academia	16	0	1	0	0	0	0	0	0	2
Volunteer for conservation organization	13	0	0	1	0	0	0	0	0	1
Consultant	13	0	1	0	0	0	0	0	0	0
Land trust committee member	11	0	1	0	0	0	0	0	0	0
Regional agency / organization staff	6	0	0	0	0	0	0	0	0	0
Elected or appointed official	5	0	0	0	0	0	0	0	0	0
Federal agency staff	6	0	0	0	0	0	0	1	0	0
Municipal commission (volunteer)	7	0	0	0	0	0	0	0	0	0
Tribal member / government	2	1	0	2	0	0	0	0	0	0
Total	151	3	6	4	0	1	0	2	1	11

## APPENDIX B: OPEN-ENDED RESPONSES

This appendix presents respondents' write-in responses to open-ended questions. To help evaluate the differing needs of the various constituencies, the comments have been grouped according to the organization type of the respondent providing the comment.

Organization Type	Frequency
Nonprofit staff	47
State agency staff	34
Municipal staff	27
Academia	27
Volunteer for conservation organization	17
Consultant	15
Land trust committee member	13
Regional agency / organization staff	10
Elected or appointed official	8
Federal agency staff	7
Municipal commission (volunteer)	7
Tribal member / government	3

As previously discussed, survey respondents could select more than one of these categories. As a result, when someone who has multiple designations provided a comment, it would appear multiple times in the dataset. In cases where it was obvious that multiple comments came from one person, such as for a longer comment, the statement was entered in the table once and the attribution was given for multiple designations. Part of a table is shown below as an example:

Does your and/or your organization's educational programming provide any of the following? (Write-in "Other" responses)	
Nonprofit staff	Printed and digital resources
Academia	Projects and programs that align with the Ocean Literacy Principles
	I want to start some data collection and analysis activities with my students
	I contribute to multiple types of programming but do not organize such efforts
Consultant	Interpretive media, exhibit design
Land trust committee member	Statewide conference, webinars
Volunteer for conservation organization / Consultant	Depends upon project specific partners
Nonprofit staff / Academia	Our partners provide all of the above mentioned program. I primarily provide field based education programs and in-person presentations in the classroom or elsewhere.

Note that in several cases, however, this deduplication was not possible for short responses (e.g., an agency name, "None," "Don't know"), in which case the responses are simply in the table multiple times.

Minor edits were made to provide for consistency of presentation, to protect anonymity, and to correct obvious errors. For the most part, however, open-ended responses are provided verbatim.

In general, respondent responses are very disparate and cannot be summarized easily. Nonetheless, some recurring themes and key findings are presented below.

### **SKILL DEVELOPMENT NEEDS**

**Are there emerging coastal issues we should consider for future trainings or education? If yes, please explain. If no, enter no.**

Some of the recurring responses to this question include the following:

- Coastal flooding and managed retreat.
- Water quality, with several mentions of pesticides, plastics, and PFAs.
- A need to decrease coastal development.
- Biodiversity and habitat protection.
- Marine debris.

### **TRAINING PREFERENCES**

**Do you see opportunities for collaboration between the Reserve and your agency, organization, or entity? If yes, please describe. If no, enter no.**

Many respondents indicated that they already collaborate with the Reserve and would like to continue doing so. Other recurring comments include the following:

- Participation in more public education events, both youth and adult.
- Planning for coastal resilience and erosion control.
- Data products and technical innovation.
- Flood control and storm preparedness.
- Invasive species mitigation.

### **EDUCATION MARKET ANALYSIS**

**You said you've used or are currently using Reserve sites in your educational programming. Please briefly explain how you've used these sites in your educational programming. (Asked of those who have used these sites.)**

Recurring responses about educational programming in Reserve sites include the following:

- Nature walks; birding in particular.
- Beach clean-ups.
- Observation of habitat management.
- Shoreline ecology and water quality education.

**From your perspective, what gaps in teacher training and educational programming can the Reserve help with? If none, enter none (Asked of educators and/or those who serve educators.)**

The responses are varied, with some pointing out areas where resources are lacking and others suggesting specific topics or areas of interest to them. It is worth reviewing the responses in

that table, as they are not easily summarized. Nonetheless, these are some common themes that were mentioned:

- Teachers need resources.
- Educators need access to the Long Island Sound itself.
- Data gathering and sharing of data needs better coordination—while there are many groups that have the opportunity to gather data, a way to share and better use the data is needed.
- There is a need for information about pollution, particularly non-point source pollution (e.g., animal waste, agricultural runoff).
- Meeting spaces and help with event logistics would benefit educators.
- Some also mentioned a need for integrating nature into curriculums.

**In addition to the topics we just asked you about, the Reserve’s Training Program is interested in identifying any additional priority coastal management topics that are important to you. Below, please list any additional topic that you consider your HIGHEST PRIORITY for coastal training. Please enter the FIRST HIGH PRIORITY topic area you have for coastal training in the following textbox and describe and/or explain it as necessary. (respondents could enter up to 10 other high priority items.)**

The responses regarding other topics were varied. Some that arose multiple times include:

- Pollution and ways to mitigate it. Among the topics related to this are nonpoint source pollution, septic systems, and PFAs.
- Water quality, including stormwater management, water acidification, and similar topics.
- Habitat, to include conservation and restoration; shell recycling was also mentioned, which relates to habitat, as well.
- Recreation, such as recreational fishing and trail maintenance, but also including the balance of human and wildlife needs.

**ROLE WITHIN ORGANIZATION**

What is the name of your agency, organization, or entity?	
Nonprofit staff	CT RC&D
	Save the Sound
	CT Audubon Society, Roger Tory Peterson Estuary Center
	Aquarium
	National Audubon Society
	The Maritime Aquarium at Norwalk
	CT Land Conservation Council
	CT Sea Grant
	New England Science and Sailing
	The Nature Conservancy
	The Conn Council of Environmental Quality
	Great Island Foundation
	Community Foundation of Eastern Connecticut
	Ducks Unlimited
	Mystic Aquarium
	Alliance for the Mystic River Watershed
	Long Island Sound Study/NEIWPC
	Save the Sound
	Connecticut Sea Grant
	Connecticut River Conservancy
	Sustainable CT
	Connecticut River Museum
	Save The Bay - Narragansett Bay
	Salmon River Watershed Partnership
	Mystic Aquarium
	NEIWPC
	National Audubon Society
	RiverCOG
	The Maritime Aquarium
	Museum
	Narragansett Bay Estuary Program
	Ducks Unlimited
	Save the Sound
	CT Audubon Society
	Eastern CT Conservation District
	TNC
	Remote Ecologist
	Denison Pequotsepos Nature Center
	The Nature Conservancy
	Farmington River Watershed Association
Alliance for the Mystic River	
New England Science & Sailing Foundation	
Save the Sound	
Project Oceanology	
Eastern CT Conservation District & The Colchester Land Trust	
CT Conference of Municipalities	
Eastern CT Conservation District, Inc.	
State agency staff	CT DEEP
	CTDOT
	Dept of Energy and Environmental Protection
	CT DEEP

What is the name of your agency, organization, or entity?	
	DEEP state of CT
	State of CT
	CT DEEP Wildlife Division
	DEEP
	CT DEEP Wildlife Division
	Connecticut Department of Energy and Environmental Protection - Fisheries Division
	DEEP
	CT DEEP (Department of Energy & Environmental Protection)
	CT DEEP
	CT DEEP
	CT DEEP
	CT Dept. of Energy & Environmental Protection
	CT Dept of Energy and Env Protection, Wildlife Div, Wetland Habitat and Mosquito Mgt Program
	CT DEEP
	CT DEEP
	CT DEEP
	CT Dept. of Energy and Environmental Protection (CT DEEP)
	DEEP State Parks
	CT Dept of Energy & Environmental Protection
	CT DEEP
	CTDEEP State Parks
	CT Dept. of Energy and Environmental Protection
	CT DEEP
	CT DEEP
	CTDOT
	CT DEEP
	CT Department of Energy and Environmental Protection
	CT DEEP
	Connecticut Department of Energy & Environmental Protection
	CT DEEP
Municipal staff	City of Groton
	Town of Groton Public Works
	State Harbormaster - Clinton
	Town of Stratford
	Town of Groton
	Town of Groton, CT
	Town of Lisbon Dept of Public Works
	City of Groton Parks and Recreation
	Town of Essex
	Town
	Town of Stonington
	Town of Colchester
	Lyme Zoning Dept
	CTNERR
	CLA Engineers, Town of Bozrah, Essex Land Trust
	Tyche Planning & Policy Group
	Town of Groton
	Town of Old Saybrook, CT
	Town of Colchester
	City of New London

What is the name of your agency, organization, or entity?	
	Town of East Lyme
	City of Milford
	Town of Westport
	Town of Waterford, CT
	Town of Old Lyme
	Town of Old Saybrook
	CAZEO
Academia	University of Connecticut
	Connecticut Sea Grant
	Connecticut Sea Grant
	University of CT Marine Sciences
	Town of Stonington
	Project Limulus, Sacred Heart University
	Connecticut College
	UConn
	Parish Hill High School in Chaplin, CT
	THE CONN COUNCIL OF ENVIRONMENTAL QUALITY
	UConn and CTSG
	University of Connecticut
	CT Sea Grant
	University of CT Dept of Natural Resources and the Environment
	University of Connecticut
	UConn Master Gardeners
	CT National Estuarine Research Reserve
	Ballston Spa Central School District
	UConn - Marine Sciences
	Connecticut Sea Grant
	Sacred Heart University
	Connecticut College - retired
	CTNERR
University of Connecticut	
University of Connecticut	
Connecticut Sea Grant	
SCSU	
Volunteer for conservation organization	The Conn Council of Environmental Quality
	City of Milford
	CUSH
	Concerned Citizens of Waterford and East Lyme
	Old Lyme Land Trust & Friends of the Three Mile River
	CTDEEP State Parks
	Rebecca Nolan Landscape Architect LLC
	Alliance for the Mystic River Watershed
	GZA
	Groton Open Space Association
	CT DEEP
	Avalon's Land Conservancy
	UConn Master Gardeners
	Alliance for the Mystic River
	Park Watershed
	Avalonia Land Conservancy
Planning Commission	
Consultant	Footprints In The Water LLC

What is the name of your agency, organization, or entity?	
	Rebecca Nolan Landscape Architect LLC
	Park Watershed
	CDM Smith Inc.
	Earthrise Designs
	THE CONN COUNCIL OF ENVIRONMENTAL QUALITY
	Tetra Tech
	Kozak Consulting
	Fuss & O'Neill
	Tyche Planning and Policy Group
	Tyche Planning & Policy Group
	GZA
	EcoMaps, LLC
	Town of East Lyme
	CLA Engineers, Town of Bozrah, Essex Land Trust
Land trust committee member	Groton Open Space Association, Inc.
	City of Milford
	Groton Open Space Association
	Old Lyme Land Trust & Friends of the Three Mile River
	Avalonia Land Conservancy
	Planning Commission
	Connecticut Land Conservation Council
	CLA Engineers, Town of Bozrah, Essex Land Trust
	Avalon's Land Conservancy
	THE CONN COUNCIL OF ENVIRONMENTAL QUALITY
	UConn Master Gardeners
	Eastern CT Conservation District & The Colchester Land Trust
CTDEEP State Parks	
Regional agency / organization staff	CT River Gateway Commission
	ABC Aquarium
	RiverCOG
	Town of East Lyme
	Long Island Sound Study/NEIWPCC
	SECOG
	NEIWPCC
	Southeastern Connecticut Council of Governments (SECOG)
	Southeastern Connecticut Council of Governments
	Narragansett Bay Estuary Program
Elected or appointed official	State Harbormaster - Clinton
	The Conn Council of Environmental Quality
	Planning Commission
	Groton Harbormaster
	Town of East Lyme
	Town of Groton, CT
	Lyme Zoning Dept
Federal agency staff	USFWS
	NOAA
	USDA-NRCS
	USDA-NRCS Connecticut
	US EPA
	USGS
	US EPA
Municipal commission	Avalonia

<b>What is the name of your agency, organization, or entity?</b>	
(volunteer)	Rebecca Nolan Landscape Architect LLC
	Niantic River Watershed Committee
	Town of Lyme Planning & Zoning Commission
	Town of Groton Conservation Commission
	CTNERR
	Essex Inland Wetlands and Watercourses Commission
Tribal member / government	Alliance for the Mystic River
	Mohegan Tribe of Indians
	Mashantucket Pequot Tribal Nation

**ORGANIZATIONAL AND PERSONAL FOCUS**

Of the topics you selected, which topic(s) would you say are YOUR primary focus in your current role? (Write in "Other" responses)	
Nonprofit staff	Funding
	Communications
	Policy
	These focus areas are not specific to coastal areas.
	Fundraising
	Land Conservation
	Fundraising
We cover all topics with equal weight	
State agency staff	Recreational Access and Management
	Public Health
Municipal staff	General planning
	Economic Development; Housing
Academia	Research
	Fisheries
Volunteer for conservation organization	Recreational Access and Management
	As a member of the Board of Directors, I am involved in all areas.
	North Branch Park River watershed management plan
	Preservation
Consultant	North Branch Park River watershed management plan
	Integrated Water Resource Management for Social-Ecological Outcomes of Environmental and Human health and well-being; cannot be pigeonholed
	General planning
Land trust committee member	Recreational Access and Management
	Preservation
	Land Conservation
Regional agency / organization staff	None
Municipal commission (volunteer)	Parcel Management

Please specify the county or COUNCIL OF GOVERNMENT (COG) where you work within Connecticut. (Asked of those who work regionally within Connecticut.)	
Nonprofit staff	RiverCOG
	New London and Windham Counties
	New London and Middlesex Counties
	NECCOG, SECCOG
	New London County
	SE
	Stonington, Pawcatuck, Mystic North Stonington, Tribal lands
	SECOGG & NECOGG
State agency staff	SECCOG & NECCOG
	Statewide, but with a focus on coastal towns
Municipal staff	Eastern District
Academia	SECOG
Volunteer for conservation organization	New London County
	Southeastern
	SE CT
	Park River regional watershed
	SECCOG
	Se CT
	Mystic River Watershed
Consultant	Middlesex
	SECOG
	SECCOG
Land trust committee member	Park River regional watershed
	SE CT
	Se CT
	Southeastern
	SECOGG & NECOGG
	SECOG
	SECOGG
Regional agency / organization staff	Middlesex
	Southeast
	Norwich
	RiverCOG
Elected or appointed official	RiverCOG
	SECOG
Municipal commission (volunteer)	RiverCOG
	Middlesex
	New London County
Municipal commission (volunteer)	New London
	SECCOG
	New London County

Please specify the municipal area, city, or town where you work. (Asked of those who work in a municipality.)	
Municipal staff	Groton
	Towns in Eastern and Central CT
	Colchester
	Groton City
	Stratford
	Town of Lisbon
	Colchester
	Clinton Harbor
	Milford
	New London
	GROTON
	LYME
	Old Lyme
	Essex
	Groton
	Old Saybrook
Town of Waterford	
City of Groton	
City of New London	
Academia	Chaplin, Hampton, Scotland
Volunteer for conservation organization	Old Saybrook
	Stonington / Groton
	Stonington, Groton, East Lyme
	Milford
	Old Lyme
	Groton
	Waterford and East Lyme
Groton	
Consultant	Towns in Eastern and Central CT
	Stonington, Groton, East Lyme
Land trust committee member	Groton
	Groton
	Old Saybrook
	Groton
	Towns in Eastern and Central CT
	Old Lyme
Milford	
Regional agency / organization staff	Preston, Sprague, Bozrah, Griswold
Elected or appointed official	Groton, CT
	Clinton Harbor
Elected or appointed official	Groton
	Old Saybrook
	Lyme
Municipal commission (volunteer)	Groton
	Town of Lyme
	Stonington, Groton, East Lyme
	Essex

Which community(ies) that you serve is / are distressed? (Asked of those who serve distressed communities.)	
Nonprofit staff	Windham Norwich New London Waterbury Killingly Groton New Haven
	Hartford, New Haven, Groton, New London, Torrington, Windham, Norwich, East Hartford, Sprague, Sterling, Griswold, Mansfield, New Britain, Bridgeport, Chaplin, Plainfield, Lisbon, Montville, Putnam, Voluntown, North Stonington, Preston
	Many mapped as per CTDEEP and NYDEC and formerly, USEPA.
	West Haven, Bridgeport
	We work with distressed and not distressed communities, you can find the list of participating towns here : <a href="https://sustainablect.org/about/participating-communities">https://sustainablect.org/about/participating-communities</a>
	Any community within the coastal zone
	Bridgeport and New London
	Bridgeport, Waterbury
	Norwich, Windham, New London
	Mystic, Ledyard, North Stonington
	New London Hartford East Hartford New Britain Groton New London
	Windham, Norwich, New London, Sterling, Sprague, Griswold, Mansfield, Chaplin, Plainfield, Lisbon, Montville, Putnam
	Eastern Pequot Reservation
	Norwich, New London, Hartford, Plainfield
	Save the Sound serves all of Connecticut and the Long Island Sound watershed within New York State -- so all of the communities on the DECD's list are within our service area.
	New London, Norwich
	We work around Long Island Sound, so any of the coastal communities would be within our area of work (e.g., Bridgeport, West Haven).
	New London, Norwich, Willimantic
	13 towns in Eastern CT district
	All those in CT
	New London, Bridgeport
	Bradford, Ashaway, Hope Valley, RI
	Bristol, Winchester Torrington
	I don't directly work with CT communities but Save the Sound works with almost all of CT.
	Norwich, New London, Hartford
	Ansonia Bridgeport East Hartford Griswold Hartford Lisbon Mansfield Meriden Montville Naugatuck New Britain New London Norwich Plainfield Putnam Sprague Torrington Waterbury West Haven Windham
	Hartford, New London, Bridgeport
	We work in the entire LIS watershed but primarily CT and NY. Too many to tabulate for this survey.
New London, Norwich	
New London, Norwich	
New Haven, New London, Bridgeport to name a few.	
Hartford & New London	
State agency staff	As a representative of the State of CT all the areas shown on the map as distressed communities would apply.
	Any Community classified as such and is in the State of CT
State agency staff	Any CT town that receives state funding for infrastructure improvements. Dependent on DOT funding mechanism and scope of work. Most often, areas within New Haven County.
	Some of the larger cities along the CT coast.

	<p>I serve all communities in Connecticut that are distressed.</p> <p>Ansonia Bridgeport Chaplin Derby East Hartford Griswold Hartford Lisbon Mansfield Meriden Montville Naugatuck New Britain New London Norwich Plainfield Plymouth Putnam Sprague Sterling Torrington Waterbury West Haven Winchester Windham</p> <p>We serve all of Connecticut, which includes distressed communities.</p> <p>Bridgeport, New London, West Haven</p> <p>A number of Communities statewide</p> <p>All those on the list as we have statewide responsibility</p> <p>New London</p> <p>All listed distressed communities in Connecticut</p> <p>All distressed communities in CT</p> <p>We provide services for all of CT, including distressed communities, affluent areas, and everything in between</p> <p>I work heavily with coastal communities, including Norwich, Bridgeport, and West Haven.</p> <p>All the towns on the distressed municipalities list.</p> <p>Bridgeport</p> <p>All distressed communities along the Connecticut shoreline including New London, New Haven, and Bridgeport.</p> <p>All as defined by DECD</p> <p>All on the list</p> <p>Statewide</p> <p>All Distressed</p>
Municipal staff	<p>The City of New London has been identified as a distressed municipality.</p> <p>In Groton, our distressed communities we serve and are looking to serve more on are neighborhoods like mid-way oval, Groton Estates, and Branford Manor. These communities face disparities relating to socioeconomics and health.</p> <p>Groton (although it is on the 'formerly distressed municipalities with eligibility remaining' list)</p> <p>Voluntown, Putnam</p> <p>Village of Pawcatuck</p> <p>Midway oval, depending on who is asking and by some measures its the entire town</p> <p>Stratford is currently in their 5-year Distressed Municipality grace period, but also has several EJ communities defined within.</p> <p>New London, Norwich</p> <p>New London Norwich Plainfield Sprague</p> <p>City of New London</p>
Academia	<p>West Haven New London</p> <p>New London</p> <p>Village of Pawcatuck</p> <p>We serve all communities in CT, which includes all distressed communities</p> <p>New London, New Haven, Bridgeport</p> <p>New Haven</p> <p>Stratford</p>
Academia	<p>Bridgeport Stratford New Haven Waterbury</p> <p>Norwalk and New London</p> <p>New London, Bridgeport, Hartford, Norwich, West Haven, New Haven</p> <p>ALL CT Communities are served by us, including local ones like New London, Groton and Norwich.</p> <p>Stratford Bridgeport New Haven Norwalk</p> <p>Groton, New London</p>

Volunteer for conservation organization	Groton
	Eastern Pequot Reservation
	Norwich, Bridgeport, Stratford, New Haven, Hartford, Waterbury, New London, Groton
	All Distressed
	I am a City of Hartford resident (over 25 years). The 78 square mile Park River regional watershed flows from suburbs through the City of Hartford to the Connecticut River.
	Old Saybrook
	Groton North Stonington Eastern Pequot Tribal Nation
	Bridgeport
Consultant	New London Norwich Plainfield Sprague
	Sterling
	Bridgeport, Norwich, New Britain, Hartford, West Haven, etc.
	Bridgeport, some Long Island shoreline municipalities and preserves
	Norwich, Bridgeport, Stratford, New Haven, Hartford, Waterbury, New London, Groton
	I am a City of Hartford resident (over 25 years). The 78 square mile Park River regional watershed flows from suburbs through the City of Hartford to the Connecticut River.
	Voluntown, Putnam
	Varies by project
Land trust committee member	Hartford, New Haven, Meriden, New London, Waterbury, Bridgeport, Putnam, new Britain, and others
	All Distressed
	New London Norwich Plainfield Sprague
	Norwich, Windham, New London
	Groton
	We are statewide, so serve any distressed community that engages our services.
	Old Saybrook
Groton	
Regional agency / organization staff	Windham, Norwich, New London, Sprague, Griswold, Lisbon, Montville.
Elected or appointed official	Old Saybrook
Federal agency staff	We work with all coastal communities (within the Long Island Sound boundary) - so the coastal municipalities include Bridgeport, New London, Norwich ....
	We serve farmers statewide.
	Any that are within the CT and RI state boundaries
Municipal commission (volunteer)	New London, Norwich
Tribal member / government	Eastern Pequot Reservation
Elected or appointed official / Nonprofit staff / Academia / Volunteer for conservation organization / Consultant / Land trust committee member	Willimantic, New Haven, New London, Meridan, Hartford, East Hartford, Bridgeport, Plainfield, Norwich
Consultant / Municipal commission (volunteer) / Volunteer for conservation organization	Groton- thru 2028

Nonprofit staff / Regional agency / organization staff	Our extent includes all of New England and New York. Too many to list here.
Nonprofit staff / Regional agency / organization staff	Sterling, North Stonington, Voluntown in CT, other distressed municipalities in RI and MA.
Academia / Nonprofit staff	Mostly communities in SW CT in the vicinity of Bridgeport and New Haven. Others include New London, Norwich, and upper watershed towns such as Torrington.

## SKILL DEVELOPMENT NEEDS

Are there emerging coastal issues we should consider for future trainings or education? If yes, please explain. If no, enter no.	
Nonprofit staff	Nothing comes to mind
	Biodiversity loss
	Managed retreat?
	Coastal inundation. When to retreat.
	Plasticizers and PFAS
	PFAS, pesticides
	Offshore wind
	Dredge deposition to combat sea level rise.
	There are so many it's hard to list.
	Unsure
	No (15 responses)
	State agency staff
Climate change has effected sea level rise, would be great to educate staff on ways to help prevent erosion to beach sand as well as address the decline in marsh land.	
We focus quite a bit on disturbance to nesting shorebirds and waterbirds, as well as restoring marsh habitats.	
I think the reserve staff are aware of current issues and are working to investigate them when resources permit. Our group can contribute sampling resources and share data for any collaborative efforts with the reserve	
Presence of PFAS	
No (13 responses)	
Municipal staff	We already partner on some initiatives and I'd love to expand that even further!
	The type of towns meeting where they discuss policies where abandoned streets and neighborhoods are talked about
	Electric Vehicle charging stations in coastal areas.
	Beach migration, dune enhancement, public education
	No (12 responses)
Academia	Difficult topic, but movement away from coast and decrease in coastal development.
	Marine debris, erosion - others as indicted on syllabus or courses.
	Anything covered in NGSS
	Climate, biodiversity, and human needs
	GIS training for high school teachers so they can teach their students to monitor coastal issues
	Stormwater management
	No (11 responses)
Volunteer for conservation organization	Trends in living on the coast re: rising sea levels, insurance costs, adaptation measures (including how long they might or might not last). Who is thinking about moving communities -- where will they go? Can land be 'put aside' for the use of future communities in distress due to sea level rise?(I.e., to where can they retreat?)
	Microplastics.
	Impact of massive data center development
	No (2 responses)
Consultant	Sure - too many people, too much development, too close to the shore. We

Are there emerging coastal issues we should consider for future trainings or education? If yes, please explain. If no, enter no.	
	<p>need change the imbalance between human and natural uses of the land. This has been the primary issue that we've addressed with 'treatments' instead of conservation and recovery, and it's been emerging for centuries, and we've done little to nothing about it, leaving little change of returning or landscape to a healthier state. Check it out at UConn CLEAR's 'Local Watershed Assessment Tool.'</p> <p>Preparation for the next hurricane when Federal gov. unable/unwilling to meet commitments of previous administrations</p> <p>No (6 responses)</p>
Land trust committee member	No (6 responses)
Regional agency / organization staff	No (5 responses)
Elected or appointed official	No (4 responses)
Federal agency staff	<p>The impact of warming water temperatures on the nearshore environment</p> <p>Working collaboratively to cost-share match in applications for funding to implement coastal restoration (one example is beneficial re-use of sediment for marsh restoration - and need for a cost share for ACoE)</p> <p>No (5 responses)</p>
Municipal commission (volunteer)	No (5 responses)
Tribal member / government	<p>Yes, flooding and erosion control</p> <p>Indigenous perspective inclusion</p>
Nonprofit staff / Land trust committee member	Biodiversity decline, coastal development and pollution, threats to coastal communities and resiliency planning.
Nonprofit staff / Regional agency / organization staff	Emerging chemicals, PFAS, etc.
State agency staff / Volunteer for conservation organization	Regenerative development
Volunteer for conservation organization / Consultant	Moving up (aka managed retreat)
Volunteer for conservation organization / Consultant / Municipal commission (volunteer)	Perhaps the Greenway conversations with DEEP... not sure if already involved.
Volunteer for conservation organization / Land trust committee member	<p>Unsustainable development and pollution</p> <p>Plastics, chemical pollution, non-biodegradable debris, floating storm-related hazards-coastal storage practices</p> <p>Increased Invasive issues.</p>

## TRAINING PREFERENCES

Are there any other type of events or training methods you would like to have included? If yes, what are they? If no, enter no.	
Nonprofit staff	Practical demonstrations No (17 responses)
State agency staff	I like a mix of in person presentations (with multiple presenters that have q & A time accounted for, and present/speak for no more than 30 minutes, ideally 15 minutes or less); then followed by a field visit/series of site visits. small group rotations can be fun/helpful too for the field trip portions. Hybrid model- some portions virtual, some portion in person No (9 responses)
Municipal staff	Hands on learning No (11 responses)
Academia	Participatory methods No (13 responses)
Volunteer for conservation organization	Mix of classroom and in-field experiential covering the same topic. E.g., classroom in the morning and field activities in the afternoon. No (5 responses)
Consultant	You might consider a 'certification' to give incentive to those entering roles to provide climate-informed services. I think training is in a rut - Trainers should listen more to people's expectations - they are not your 'audience' - trainers are the public's audience. The World Cafe approach has always proven most effective to me, especially to capture new ideas and thought and build towards an objective or goal. NOAA has had excellent training on Project Design and Evaluation, which can bring substance to the discussion and head towards, real and verifiable human and environmental health and well-being outcomes. The NERRS Science Collaborative used to emphasize collaborative projects with initial bottom-up collaboration in the proposal stage, which has regressed some to the traditional top-down approach. Outcomes need a more social-ecological context that can be felt by the public, at home, 24/7 that matters to our everyday lives. A new collaborative model for management and accountability is needed with Natural and Social metrics that are tangible and can be felt with aspirations for sustainable structural and functional integrity. Unfortunately, environmental planning is in a rut without a cohesive sense of where we are and where we need to go, i.e., a master plan for conservation and development. with new initiatives, and a path forward with a clear sense of direction and what needs to be done and the tangible benefits of humans and Nature. The CTNERR can and will do much better within the reserve boundary and try to bring that spirit to the broader public. That requires public engagement and constructs that meet their vision and desires that match their lifestyles. No (5 responses)
Land trust committee member	No (5 responses)
Regional agency / organization staff	Tours of multiple sites No (3 responses)
Elected or appointed official	No (4 responses)
Federal agency staff	No (3 responses)
Municipal commission (volunteer)	No (4 responses)
Tribal member / government	No (3 responses)
State agency staff / Volunteer for conservation organization	Combine with public events to include implementation practices and after action review meetings for staff /trainees to evaluate impact of practices.
Volunteer for conservation	Field trips to actual coastal conditions

<b>Are there any other type of events or training methods you would like to have included? If yes, what are they? If no, enter no.</b>	
organization / Consultant	
Volunteer for conservation organization / Consultant	CIRCA Annual Resilience Summit 1 Day event
Volunteer for conservation organization / Land trust committee member	Examples of successful reef building, shoreline infrastructure, vegetative buffers,
Volunteer for conservation organization / Municipal commission (volunteer) / Consultant	Training modules online

Is there anything that would make you more likely to participate in training or education through the Reserve Training Program in the next 2 years? If no, enter no.	
Nonprofit staff	Informative programs.
	Alignment with my/organization priorities
	Mostly just stipends as it can be difficult to have our organization spend money on our time to attend trainings when most of our funding is grant funding.
	Collaborative training opportunities
	Virtual events.
	No, time is really my limiting factor
	Low to no cost or grants for costs.
	Training planned months in advance so that I have time to plan my schedule.
	Don't know
	No (16 responses)
State agency staff	Less schedule conflicts
	It is dependent on the subject matter and it's relevance to CT River & LIS fish research
	I am not always aware of opportunities.
	Ease at effort and timing.
	A webinar option for state folks, state overspending has them cutting travel authorizations.
	No, I will attend if a training is held!
	If the training is relevant, I'll try to attend.
	Limit the length.
No (13 responses)	
Municipal staff	I would be more likely to attend training relevant to my responsibilities which are primarily related to inland wetlands
	Green stormwater infrastructure training.
	That it is during the work week and not at night or weekends
	No (12 responses)
Academia	Fully funded with a stipend - I'm a professional and it seems silly that teachers would be expected to participate in being better educators on their own time and pay for it themselves.
	Partnerships with like-minded organizations
	Yes, training sessions that would enable me to conduct a 1-2 week unit involving science but focusing on statistics (data collection and analysis) and possibly computer science (maybe GIS or write programs to analyze the data). I need the background on the science topic, then I could develop the lesson plans for math and CS. I've been excited about this for years, I just need someone to partner with me to develop these plans.
	More time
No (10 responses)	
Volunteer for conservation organization	Community forums discussing impact of coastal development as it impacts quality of life
	I like it when some of my colleagues also attend. We can travel together, and we take back shared knowledge.
	No (5 responses)
Consultant	No, but pleased to see that you are considering public and professional training
	To beat a dead horse, workshops that involve public participation and are designed to meet their needs, not ours, are immediately attractive to me. People want to be listened to, participatory, not the listeners. And, no, walking around with stickers or using a jam board is not listening. It simply guides an 'audience' towards predetermined expectations of the 'presenters'. A rigorous agenda that

Is there anything that would make you more likely to participate in training or education through the Reserve Training Program in the next 2 years? If no, enter no.	
	attempts to control an 'audience' makes me less likely to participate. If I'm invited because someone sees my value in attending, and I see some potential for a better outcome for the environment and my personal health and well-being, I'm there in a shot. That's how you engage the public, too. They are your best 'trainers'.
	No (4 responses)
Land trust committee member	A series of programs covering different aspects a complex ecosystems: such as climate change impacts on fish, migratory birds, upland plants and animals, species adaptation, impacts of changes to air and seas, etc.
	Mostly just stipends as it can be difficult to have our organization spend money on our time to attend trainings when most of our funding is grant funding.
	No (5 responses)
Regional agency / organization staff	No (5 responses)
Elected or appointed official	No
Federal agency staff	Topics focused on the nexus between research and policy making, i.e. how can researchers make sure they are developing products that are useful for coastal policy making
	No (6 responses)
Municipal commission (volunteer)	Ease of access. Have a very busy life and I am a volunteer for the town commission.
	No (5 responses)
Tribal member / government	Provide multiple options for the same training
	No
Nonprofit staff / Volunteer for conservation organization / Tribal member / government	Youth engagement and youth empowerment
Nonprofit staff / Regional agency / organization staff	Relevance to my region.
Nonprofit staff / Academia / Volunteer for conservation organization / Consultant / Land trust committee member / Elected or appointed official	Just need to be of interest
Nonprofit staff / Regional agency / organization staff	Topics of my interest.
Municipal staff / Elected or appointed official	Interesting speakers on wildlife, vegetation, or any other natural processes that can give incentive to protecting the area.
Volunteer for conservation organization / Consultant	Relevant topics and case studies of projects from around New England
	Funding
Volunteer for conservation organization / Land trust committee member	I would travel to visit successful stormwater mitigation sites, in or out of state

Do you see opportunities for collaboration between the Reserve and your agency, organization, or entity? If yes, please describe. If no, enter no.	
Nonprofit staff	Yes, using the volunteer program that NERR is establishing would be very helpful.
	Always happy to help lead programs
	Yes, the Connecticut River Conservancy would love to connect with the Reserve regarding any ecological analysis of the Connecticut River, any trainings available, and the use of any Reserve properties.
	No
	Yes, we already do on so many levels!
	Yes! we already have been collaborating and I would love to continue
	Yes! we are always chatting - education programs, events, PD
	Yes, possibly on grant projects
	Yes. Coastal resilience eelgrass restoration. Ongoing.
	Yes, TNC and the Reserve are currently partners on several active projects and collaborative groups and I anticipate this continuing in the future.
	No
	Yes, we would be glad to share related trainings with municipal officials, or to specific communities.
	Yes!
	No
	Not sure... if you are talking about broader habitat restoration that does not necessarily need to be coastal?
	We already are :-)
	Yes, collaboration on trainings, and implementation projects.
	Yes. Ribbed mussel survey as a starter
	Maybe!
	Many collaborations for restoration, training and education
	Possibly
	Yes. We are a funder. We have general interest in these topics as it relates to our grantmaking.
	Yes; we have a good framework setup from previous and ongoing collaboration with reserve staff.
	Would need to learn more about what you do, but the answer is never 'no'!
	Yes; have already collaborated several times and hope that continues!
	No
	Yes, collaborate on coastal nature-based solutions and education.
	Supporting Coastal Land Trusts
	Yes, co-authoring grants; joint delivery of programs and PD
	We have expertise on tidal wetlands and invasive species so we could collaborate.
Yes	
Yes! I don't have any specific ideas in mind right now but am happy to collaborate on upcoming projects.	
State agency staff	Yes
	Yes, not sure
	Yes! on really all of them. In particular, CTDEEP and my division specifically (LWRD - Land and Water Resources Division) really struggles to engage in meaningful community outreach to ID concerns and group think solutions in a place-based, inclusive way.
	Yes, I believe our 2 groups have a lot to learn from one another

Do you see opportunities for collaboration between the Reserve and your agency, organization, or entity? If yes, please describe. If no, enter no.	
	Yes. There is already collaboration with coastal management and monitoring. There is scope for more collaboration on coastal resilience/storm preparedness.
	No
	It is unlikely, but might be possible in some circumstances
	No
	Yes, Already working with Reserve
	Yes
	Yes, we would be interested in participating in more public educational events.
	Absolutely. collaboration on field trips and classroom training for professionals or the gen public.
	Yes, living shorelines/nature-based solutions, coastal hazards to start with, and probably much more
	I am unsure
	Yes, habitat research in the CT River is severely lacking
	Yes, in working on common goals to protect and preserve the resource.
	Yes. I frequently collaborate with the Reserve on coastal management and habitat restoration issues.
	No
	Yes, educational and grant opportunities to help protect the reserve
Municipal staff	Yes
	We already collaborate
	No
	Yes
	No
	Yes, the Essex IWWC or Essex Land Trust may be willing to partner
	No
	Yes, educational workshops and opportunities for youth workforce development in GSI.
	Possibly
	Yes
	No
	Possibly on educating the public and or different Commissions/Committees on sea level rise, coastal flooding and climate change management.
	Possibly but not sure how
	Maybe
	Yes
Academia	No
	Joint trainings or educational programming in field
	No
	No
	Maybe
	Possibly, collaboration on aerial drone mapping
	Yes. The Reserve is an amazing asset in our state and in an ideal world, I would like to collaborate with the Reserve to provide educational opportunities to more youth and adult participants in our programs.
Yes in terms of education. There are four science teachers (grades 7-12) at my school. At least one would most likely be interested in working on this too. I teach at a tiny rural school, in case that information helps.	

Do you see opportunities for collaboration between the Reserve and your agency, organization, or entity? If yes, please describe. If no, enter no.	
	No
	Yes, we have collaborated in the past and would like to continue!
	If teacher training is offered - yes
	Sea Grant and the Reserve overlap significantly on thematic interests and staff complementary qualifications.
	Yes
	Yes, technology transfer, volunteer events, and data sharing
	Yes
	Happy to contribute regarding area-based management, biodiversity, climate change, ecosystem approaches to management, etc
Volunteer for conservation organization	No
	I already mentioned collaborative 1-week summer camp for youth in grades 7-12. Goal is to develop critical thinking through in-depth role playing, problem-solving, and experiential learning rather than memorizing facts and the 'right answer.' I also notice that so many students do not seem to have a voice -- they speak very softly, if at all. I would like to see them connect with nature and come alive. Have enough staff (including volunteers) that we can connect with individuals and help them grow. They are the protectors of nature in the future; they need to be thoughtful and to have a voice.
	Yes. Review/assessment of our water quality data.
	Yes, promote public education and support for protecting coastal habitat
	Yes
	No
	Possibly
	Maybe
Consultant	No
	Yes, Fuss & O'Neill could provide technical input on content and speakers on certain topics (NBS, coastal resilience, Green Stormwater Infrastructure, etc.)
	No
	No
	You know where to find me or I wouldn't have received this survey.
	Yes, other staff at CDM Smith who work more closely with coastal resiliency, flood management, etc.
	Always interested in ways to collaborate and build constituency on topics related to climate resilience
	Yes. Would be interested in leading field trips
Land trust committee member	Maybe
	No
	Shared events, educational field trips,
	No
	Possibly
	We work closely with land trusts who are primarily focused on land conservation. Limited opportunity for coastal work, and there are other orgs better suited for this role than us.
Regional agency / organization staff	No
	Possibly. Training on Riparian Buffers, invasives management in Riparian Buffers and how to educate the public about the benefits of Riparian Buffers
	Yes, we would be open to discussing opportunities between the Reserve and SECOG.
	Yes, on coastal resilience
Elected or appointed official	No

Do you see opportunities for collaboration between the Reserve and your agency, organization, or entity? If yes, please describe. If no, enter no.	
	Maybe
	No
Federal agency staff	Yes
	Yes, any work related to seagrass
	No
	Yes, if there is a need for information relating to the National Cooperative Soil Survey information, I am happy to provide support for that. The NERR was part of a recently published coastal zone soil survey that is now published and integrated into Web Soil Survey. Also, if there are opportunities for NRCS financial assistance programs relating to shellfish restoration (through EQIP), there may be opportunities to partner. We cannot provide financial assistance to state or federal agencies, however if there are community groups that help manage lands within the NERR, it is sometimes possible to partner through those NGO's.
	Yes - we will be working together as part of the salt marsh working group - and could collaborate in other ways if we identify opportunities through that process
	No
	Yes, collaborating on using our data products in local policy making surrounding restoration and management of coastal wetlands
Municipal commission (volunteer)	I can see cooperation/collaboration with the Town of Essex, through its paid officials. But not necessarily with the IWWC
	Yes
	No
	Reserve staff (Dr. Jamie Vaudrey) already an integral part of my organization
	Yes - Already working Baker Cove Cleanups
Tribal member / government	Yes already a member of LIS
	Yes. co-host a presentation, co-create a training, etc.
	Yes
Nonprofit staff / Land trust committee member	Yes! I definitely think that ECCD and our watershed committees could collaborate with the reserve and I would love to do that in the future!
Nonprofit staff / Regional agency / organization staff	Joint research and outreach efforts.
Nonprofit staff / Regional agency / organization staff	I do. We are working on a number of projects with people involved in the Reserve and for LIS.
State agency staff / Volunteer for conservation organization	Absolutely. We should do a program planning day and define all the opportunities to support each other and mitigate program risk.
Municipal staff / Academia	Not sure
Municipal staff / Consultant / Land trust committee member	Yes Essex Land Trust
Volunteer for conservation organization / Land trust committee member	Not at this time
	Erosion control, vegetative buffers, invasive plant management, coastal planting guidelines, shoreline infrastructure
Volunteer for conservation organization / Consultant	Yes but we have waited over two years for collaboration on living shoreline training with the Reserve that has yet to be scheduled due to grant and DEEP staffing delays.
	If the Reserve had a mobile exhibit I could schedule that at public programs.
Volunteer for conservation organization / Consultant / Municipal commission (volunteer)	Possible demonstration projects for pro-bono work. Educational opportunities for adults on boards I currently sit on (Denison Pequotsepos Nature Center & Stonington Cemetery Commission)- Vegetation management for all above.

## EDUCATION MARKET ANALYSIS

You said you've used or are currently using Reserve sites in your educational programming. Please briefly explain how you've used these sites in your educational programming. (Asked of those who have used these sites.)	
Nonprofit staff	Guided educational walks and kayak tours, beach cleanups,
	Field Programs, Birding education.
	We educate about shoreline nesting birds.
	Great Island Foundation will be conducting Ribbed Mussel studies on Great Island and will incorporate students as much as possible
	Field studies for schools, camp programming, community science programming
	Seine nets/water quality ed programs
	TRBP Floating Workshop at Bluff Point Hired Project O's Research Vessels for programs
	We have partnered with New England Science & Sailing (NESS) in the past to provide educational seining, outdoor activity, and classroom-based opportunities related to fish habitat and migration. Our Unified Water Study also works with partner groups and volunteers in many of the embayments and harbors in the area to monitor water quality. Finally, we have worked for several years with schools and universities to provide classroom and field-based trainings on culverts and culvert assessment -- most notably Ella T. Grasso Technical High School in Groton.
	Student field trips discussing Long Island Sound, hikes, bird and duck walks, and shoreline exploration
	Seining, animal movement nature hike, marine debris, water quality monitoring
	These sites are primarily restoration sites to provide opportunities for interns and volunteers to gain additional experience and to stay in the field.
	Coastal field studies - mostly grant funded for students and summer STEM programs, but some are also part of a package of programs purchased by various schools (MS - college) Horseshoe crab monitoring/tagging (permitted,) birdwatching, habitat restoration (on Ansonia land,) amphibian monitoring, water quality monitoring, and beach cleanups
	We take kids there
	Guided bird walks or ecology walks and guided paddles
R/V Programs, Shore Programs, data gathered from sites used in labs and entered into the Project Oceanology Data Set (PODS).	
State agency staff	Fishing education programs
	Educational programming throughout No Child Left Inside programs as well as programming offered throughout Park and Recreation Supervisors who manage the sites and the partnerships, they have made with Friends groups and not for profit organizations to offer educational programming that depicts the history of the park in question.
	We use the classroom facility at CT DEEP Marine HQ
	Guided hikes, beach cleanups...
	We will host an occasional school group or present our research on CT River fish
	Site visits to NGO's/state/Fed groups to view restoration/management activities.
State agency staff	Participated in other events by bringing educational materials and displays. Volunteers to help with surveys and plantings.
	We've organized formal workshops and informal meetings for both project-specific work, and general coastal/estuarine educational programs
Municipal staff	Garbage clean ups

<b>You said you've used or are currently using Reserve sites in your educational programming. Please briefly explain how you've used these sites in your educational programming. (Asked of those who have used these sites.)</b>	
Academia	Field trips for undergraduates
	Mentor teacher workshops, day events
	I collaborate with Project O on BWet grants and our students work in the areas, collecting and analyzing water quality, aquatic and coastal biota. I work with Groton Public Schools to take 4 and 5th graders to Groton open space as part of their explorer's club.
	The diversity of species, communities and habitats within the offshore element of the NERR are generally out of sight. Extensive imagery and research products are used in both formal and informal settings to teach about our natural heritage and engender a sense of stewardship.
	I host site visits and volunteer workshops at the Thames river site, and field trips to Bluff point
	Provide water quality training and habitat exploration workshops
	Long Island Sound Mentor Teacher program, Long Island Sound Schools Network, Tri-State Blue Schools network
	We hosted training workshops focused on applying geospatial tools toward conservation action for youth (high school students) and adult volunteers.
Volunteer for conservation organization	Guided hikes, beach cleanups...
Consultant	We provide interpretive planning for nature preserves, nature centers, environmental education centers. We have several authored books on climate resilience, building and site design (most recent Design for Flooding) Wiley 2010 and have served as FEMA certified instructor (Obama Administration), related to environment, climate and resilience. Other consultancies national.
Land trust committee member	Public hiking tours, nature study, cultural history, birding, habitat management, shoreline ecology
Elected or appointed official / Land trust committee member / Volunteer for conservation organization	Included in POCD
Land trust committee member / State agency staff / Volunteer for conservation organization	Public outreach activities at Bluff Point State Park.
Consultant / Municipal commission (volunteer) / Volunteer for conservation organization	Nature walks/ volunteer ops, giving garden-regenerative ag, animal care - as volunteer/board member for DPNC.
Land trust committee member / Nonprofit staff	We have done field experiences with schools and the public about watershed's, non-point source pollution and habitat restoration.
Academia / Nonprofit staff	These are the LISS Stewardship Sites and are targeted for citizen science programming, aquatic invasive programming, general ed/outreach events, and more.
Land trust committee member / Volunteer for conservation organization	Some Old Lyme Land Trust preserves border the Connecticut River, and we occasionally have programs that make use of them. Last Sunday, for example, we hosted a talk and walk with the Old Lyme Historical Society at Watch Rock Preserve about the site's history.

<b>You said you've used or are currently using Reserve sites in your educational programming. Please briefly explain how you've used these sites in your educational programming. (Asked of those who have used these sites.)</b>	
Land trust committee member / Volunteer for conservation organization	Outdoor play and exploration. Informal nature study.
Consultant / Volunteer for conservation organization	Living Shoreline training using Hepburn Family Preserve site as a case study in Fenwick
Consultant / Land trust committee member / Municipal staff	Lead vernal pool walks in the preserve
Consultant / Municipal staff	Educational discussions of hydrilla invasives

From your perspective, what gaps in teacher training and educational programming can the Reserve help with? If none, enter none (Asked of educators and/or those who serve educators.)	
Nonprofit staff	Teachers are always looking for resources - insect, plant and animal IDs - waterproof, easy to use in the field that are specific to the reserve. Indigenous information about locations in the reserve. Data sharing online that teachers can access and have students use data for lessons. Perhaps a central log that all NGOs who use the popular sites like Bluff Point can notify of anticipated use.
	Access to the sound is such an asset the reserve can provide!
	Professional development is always great
	None
	Data Analysis
	I'm not as familiar with what gaps exist for that sort of programming, to be honest -- but can always see the value in helping orient young people to the value and beauty of marshes, and the ways they've been damaged and filled in over time.
	None
	No
	Not sure! would love to offer more place based education + partnership programs
	Data gathering and sharing
	I can't speak to teacher training, but local commission training is always helpful, particularly for Conservation and Inland Wetland commissioners.
	Teacher experiences for their own educational development.
	Professional development for non-formal educators. Bring in experts on specific topics- seaweeds, shellfish, finfish, salt marsh plants, crabs, invasives species of LIS, etc.
	Collaboration to deliver PD and programs, sharing resources, co-authoring grants to deliver PD and programs, letters of support for grant applications, identification of schools in need of programming that are not currently served.
	None
	None
	None
	Not sure, education is not a primary part of my role and the role of my team.
	Learning about what everyone else is doing and best practices for Environmental Education.
	Ideas for simple nature-based crafts for elementary and middle school aged students that would be relevant to marine/coastal science lessons
	Nonpoint source pollution and residential impacts from fertilizer use and pet and animal waste
	I'm not sure
	Place based learning
Additional applied science experience	
Relevant Curriculum and travel	
N/a	
Meeting space, event logistics, facilitation	
State agency staff	None
	None
	I'm not sure since we're primarily research
	None
State agency staff	None
	Our educational programming does not focus as much on coastal wildlife and habitat, so the Reserve can help us fill that gap.

From your perspective, what gaps in teacher training and educational programming can the Reserve help with? If none, enter none (Asked of educators and/or those who serve educators.)	
	Organizing opportunities/field trips for teachers to visit some of these sites to learn about restoration/management efforts.
	Partnering with our state and municipal parks to help develop programs to educate younger generations on how to be good stewards of the environment. I realize the Reserve is doing this already but would like to see a better partnership with State Parks.
	None
	It's recently been determined that regular trainings for seawalls/armoring vs living shorelines & other alternatives would be helpful - for general public, municipalities, State Parks staff, and others
Municipal staff	None
	Coastal climate impacts
	None
	None
	NA
	Hoping non subject matter expert staff to incorporate water quality content into their teachings
	Integrating nature-based lesson plans k -12, environmental stewardship, emotional connection to nature, environmental literacy (with a focus in grassroots communities).
Academia	None
	Dk
	Getting people to the shore for hands on experiences
	Easy access, relevant place based events, demonstration sites.
	Sea Level Rise, Severe Storms, and Shoreline change
	The new NYSSLS (New York's adaptation of NGSS) for earth science (as well as other science fields) includes a LOT more environmental impact standards that we, the educators, are not well-versed in. Any teacher training that can help us teach these standards well would be awesome.
	Not sure
	I teach high school math (Statistics and Calculus) and computer science. The gap I see is that I want to create a 1-2 week project for my students to collect data and analyze it. We could use statistics and computer science, possibly GIS as well. I know your projects are perceived as science but I have worked for NOAA in the past, participated in two Earthwatch trips, and volunteered for the Lobster Conservancy for 2-3 years in the past. I want to take practical science and push this into my math and CS classrooms.
	None that I can think of at this time.
	No
	Need for more trainings on pollutants (especially plastics), water quality, climate change, resilience, estuarine science.
	I wish we would work together more closely so we can avoid overlap. I know you and [redacted] work together a lot.
	Subject matter experts for undergraduate field trips and guest lectures in classrooms
	None
Academia	The Reserve can take a holistic and landscape perspective that stretches into the water and southern boundary of the offshore unit.
Volunteer for conservation organization	None
	No
	I think that it would be good to explore the possibility of week-long summer camps in collaboration with you -- for grades 7-12 -- so that we can explore

<b>From your perspective, what gaps in teacher training and educational programming can the Reserve help with? If none, enter none (Asked of educators and/or those who serve educators.)</b>	
	more deeply, develop critical thinking, and do activities like the Flood Game at a slower, more thoughtful pace.
Consultant	None
	No
	Making each site, building and trail a setting for informal, self guided natural science opportunity to be undertaken with parents/teachers for outdoor learning, kids teaching parents and vice-versa. Many best practice examples from peers nation-wide.
Land trust committee member	Unable to answer this - not my field
	None
	Offer lesson plan content for public school teachers and staff.
	No
Regional agency / organization staff	Teacher experiences for their own educational development.
	None
Elected or appointed official	No
Federal agency staff	Perhaps an envirothon workshop relating to NERR topics. Aquatics is one of the core Envirothon topics and there is a robust high school envirothon program in Connecticut.
Municipal commission (volunteer)	Not aware. We are effectively a land use review commission. As such we respond to applicants and become involved when there are violations of land use code regarding inland wetlands and watercourses....not tidal ones
	None
	NA
Land trust committee member / Volunteer for conservation organization	Contact Groton Public Schools.
Land trust committee member / Volunteer for conservation organization	We are always looking for experts to share their knowledge at our events.
Consultant / Volunteer for conservation organization	US FWS Silvio O. Conte National Fish & Wildlife Refuge had a mobile 'Watershed on Wheels' ('WOW') that could be reserved for public events. Because the WOW required multiple staff to move and set-up, the WOW was retired. It would be great if the NERR could redesign a mobile exhibit that could visit schools, and park festivals to deliver experiential glimpses and messages about the NERR for audiences that cannot travel. The WOW was very successful at multiple events in Hartford, serving as a 'center piece' for environmental programs. Surely an affordable and compelling mobile exhibit can be designed, within perhaps a electric vehicle.
Land trust committee member / State agency staff / Volunteer for conservation organization	Understanding the importance of recreational access as well as the challenges of managing recreation and the impacts.
Consultant / Volunteer for conservation organization	Training for municipal staff and community engagement meetings for climate adaptation projects for coastal resiliency
Elected or appointed official / Land trust committee member / Volunteer for conservation organization	The magnitude of the challenges are not understood by the public
Elected or appointed official / Municipal staff	The importance of wetland and estuary protection as well as the upland area surrounding it.

<b>From your perspective, what gaps in teacher training and educational programming can the Reserve help with? If none, enter none (Asked of educators and/or those who serve educators.)</b>	
Academia / Nonprofit staff	Reserve is doing a great job providing teacher training, especially for non formal educators. I am excited that opportunities for non formal ed are continuing!
Consultant / Municipal commission (volunteer) / Volunteer for conservation organization	Not sure-- we have board members at DPNC that could use science based professional development-- staff/volunteers are already very knowledgeable. I don't think watersheds are discussed enough-- we also often get questions about the DEEP greenway program/ how to permanently protect land. Some misconceptions but could be an opportunity because greenways have been defined to include waterways- ie Mystic River.
Nonprofit staff / Tribal member / government Volunteer for conservation organization	More round table discussions on how to expand and grow these efforts
Land trust committee member / Nonprofit staff	It would be great to have more information on restoration projects that can be done or have successfully done and maybe some guides that watershed committees or other groups could replicate. For example oyster restoration, eels grass, or even shell recycling programs. It is currently very difficult to do any of this for permitting and lack of resources. perhaps some guides and knowledge from successful experiences would make these project more obtainable.
Consultant / Land trust committee member / Municipal staff	I'm not really sure!
Nonprofit staff / Regional agency / organization staff	Adult science literacy.

In addition to the topics we just asked you about, the Reserve's Training Program is interested in identifying any additional priority coastal management topics that are important to you. Below, please list any additional topic that you consider your HIGHEST PRIORITY for coastal training. Please enter the FIRST HIGH PRIORITY topic area you have for coastal training in the following textbox and describe and/or explain it as necessary.	
Nonprofit staff	LIS coastal risk and resilience to storm surge
	Funding resources
	Ocean acidification
	Further reductions in the seasonal hypoxia area in the westerns Sound
	Nature-based Solutions
	Living shorelines: identifying and prioritizing living shoreline projects that gain max ecological u
	Municipal stormwater management and flood mitigation
State agency staff	Beneficial use of dredged material for habitat restoration
	Trail erosion
	Positive community engagement and capacity building
	Nonpoint Source Pollution associated with septic systems
	Human use conflicts
	Explaining and managing risk to CT coastal communities: when to improve infrastructure
	Coastal acidification
Human disturbance of wildlife habitat	
Municipal staff	Business education and MS4 specific education
	Reducing erosion- living shorelines
	Helping local property owners understand coastal flood risk
Academia	Habitat restoration & conservation
	Recreational fishing
	Stormwater management
	Impacts of climate change
Volunteer for conservation organization	Sea level rise on coastal communities
	Coastal flood mitigation finance and funding
Consultant	I think that with degradation of FEMA by present Administration, the burden for climate resilience
	Integrated Water Resource Management for Transitional Ecosystems
	Coastal flood mitigation finance and funding
	PFAs
Land trust committee member	Coastal ecology, marine habitat management
Federal agency staff	Assessing cumulative impacts to coastal habitats
Municipal staff / Land trust committee member	Sea level rise on coastal communities
	Shell recycling programs
Nonprofit staff / Regional agency / organization staff	How to effectively advocate for estuarine protection and restoration.
	Extreme weather planning and preparations
Regional agency / organization staff	Land Use Planning & Regulation to protect estuary
Volunteer for conservation organization / Consultant / Municipal commission (volunteer)	Health dept regs, municipal zoning vs state regs for wetlands
Volunteer for conservation organization / Land trust committee member	Sea level rise, water table rise, storm water run off and managing public opinion of our roles in pr
	Identification of species, especially state listed.

Please enter the SECOND HIGH PRIORITY topic area you have for coastal training in the textbox and describe and/or explain as necessary.	
Nonprofit staff	Grant calendars
	Current state of equitable access to the LIS, and opportunities to improve equitable access
	Impervious reduction in areas with high percentages of impervious coverage near swimming beaches
	Coastal flooding
	Habitat Mapping
State agency staff	Invasive plant control
	Erosion
	Tide Gates in our CT Communities - Management and Removal for TW revival and prevention of community
Municipal staff	Alternative pesticide herbicide reduction methods and organic products education
	Stormwater treatment and increasing infiltration
Academia	Coastal resiliency
Consultant	The connection between inland riverine protection and coastal resilience for every watershed from he
	Balancing human and natural needs in Social-Ecological System context
Land trust committee member	Restoration of degraded shoreline and estuaries
Federal agency staff	Creating thermal resilience in eelgrass
Municipal staff / Volunteer for conservation organization / Land trust committee member	Mitigation / delaying the inevitable with beach front homes
Nonprofit staff / Land trust committee member	Composting programs
Nonprofit staff / Regional agency / organization staff	Stormwater Utility design and implementation.
Volunteer for conservation organization / Consultant	Nature based solutions design and maintenance
Volunteer for conservation organization / Consultant / Municipal commission (volunteer)	Infrastructure best practices- updating waste management systems

<b>Please enter the THIRD HIGH PRIORITY topic area you have for coastal training in the textbox and describe and/or explain as necessary.</b>	
State agency staff	Private land conflict TW loss survey across the state.
Municipal staff	Residents reduction of impervious areas
Consultant	There is no topic that is not of interest - always connect Using an Earth system approach to identify safe boundaries for ecosystem structural and functional a
Land trust committee member	Cultural land history-reading the land use landscape, for colonial, pre-contact, modern area, railroad
Nonprofit staff / Land trust committee member	Reduction of Nutrients in our waterways & homeowner education
Volunteer for conservation organization / Consultant	Managed retreat for businesses and homes
Volunteer for conservation organization / Consultant / Municipal commission (volunteer)	Wetland/ coastal permitting

<b>Please enter the FOURTH HIGH PRIORITY topic area you have for coastal training in the textbox and describe and/or explain as necessary.</b>	
Municipal staff	Septic systems
Consultant	Understand that inflexible human laws conflict with Nature's laws, which are instantaneously adaptive I fear I have not been useful but thank you
Nonprofit staff / Land trust committee member	How to work with local politicians to get policies and bills passed for many of these subjects
Volunteer for conservation organization / Consultant	Living shorelines for municipalities (we train our own staff)
Volunteer for conservation organization / Consultant / Municipal commission (volunteer)	Conservation options in CT/ placing property in development restricted trusts or easements

A municipal staff member entered native plantings as a fifth high priority. There were no other comments from this point.

## APPENDIX C: SURVEY INSTRUMENT

### CONNECTICUT NATIONAL ESTUARINE RESEARCH RESERVE NEEDS ASSESSMENT SURVEY FINAL MARCH 2025

4/7/2025

#### INTRODUCTION

**Who we are and our survey's purpose:** The Connecticut National Estuarine Research Reserve (the Reserve) has contracted Responsive Management, an independent research firm specializing in natural resources and the environment, to conduct this short survey to understand what professional development needs and interests exist on topics of climate, habitat, and water quality.

**Survey goal:** Your responses will help the Reserve staff plan education and training opportunities that are most valuable to you and your colleagues. All staff in your organization are invited to take the survey.

**About the survey:** This survey will take approximately 15-20 minutes to complete depending on your responses. Note also that all open-ended questions in the survey are voluntary. If you would prefer to skip any open-ended questions, please feel free to do so. Responses will remain anonymous, and completing the survey does not obligate you to further participate in Reserve events. The Reserve anticipates sharing more about the findings of this survey next fall as we compile and analyze results. If you would like to be notified about the results of this survey or future events, there will be an opportunity to provide your email.

**About the reserve:** Established in 2022, the Reserve is a part of a National Oceanic and Atmospheric Administration (NOAA) funded, national network of coastal areas designated for stewardship, research, and education of estuarine systems. The University of Connecticut is the Reserve's state partner, and Reserve staff work in partnership with the Connecticut Department of Energy and Environmental Protection and other organizations to provide communities with science-based information and skills needed to address coastal management issues.

**Click "Next" or the blue arrow to begin the survey.**

**FAMILIARITY WITH THE RESERVE OVERALL**

The Connecticut National Estuarine Research Reserve is one of 30 Reserves around the coastal United States that form the National Estuarine Research Reserve System. For the remainder of this survey, the Connecticut National Estuarine Research Reserve will be referred to as “the Reserve.”

The Reserve includes more than 52,000 acres in Long Island Sound, Fishers Island Sound, the Thames River, and the Connecticut River, with their headquarters in Groton. Through research and monitoring, resource stewardship, training, and education, the Reserve promotes healthy estuaries, watersheds, and resilient coastal communities.

[ASKED OF ALL]

1. Before this survey, how familiar were you with the Reserve?
  - Very familiar
  - Somewhat familiar
  - A little familiar
  - Not at all familiar
  - Don't know

**ORGANIZATION AND ROLE OVERVIEW**

Next, we would like to know more about you and your organization.

[ASKED OF ALL]

2. Which of the following describes your occupation or role within your agency, organization, or entity? (*CHECK ALL THAT APPLY*)
  - Elected official
    - Federal
    - State
    - Local
  - Appointed official
    - Federal
    - State
    - Local
  - Federal agency staff
  - State agency staff
  - Regional agency / organization staff
  - Municipal staff (such as planning, public works, and stormwater departments)
  - Municipal commission member (volunteer)
  - Indigenous tribe member or member of tribal government
  - Land trust/open space committee member
  - Non-profit staff
  - Consultant (e.g. engineer, architect, or designer)
  - Academia
  - Volunteer for conservation organization
  - Other (please specify) \_\_\_\_\_

[ASKED OF ALL]

3. Which unit(s) of continuing education credits, if any, does your position require? (*CHECK ALL THAT APPLY*)

My role does not require continuing education credits

Professional development hours

Continuing Education Units (CEUs)

American Institute of Architects (AIA)

American Planning Association (APA) / American Institute of Certified Planners (AICP)

The Association of State Floodplain Managers (ASFPM)

Other (please specify) \_\_\_\_\_

Don't know

[ASKED OF ALL]

4. What is the name of your agency, organization, or entity? [OPEN-ENDED]

\_\_\_\_\_

### Locations Served

[ASKED OF ALL]

5. How would you describe the area you serve? (CHECK ALL THAT APPLY)

Nationwide

Multi-state

Statewide (Connecticut)

Regionally within Connecticut (please specify the county or [COUNCIL OF GOVERNMENT \(COG\)](#) where you work within Connecticut) \_\_\_\_\_

Municipal area, city, or town (please specify) \_\_\_\_\_

Other (please specify) \_\_\_\_\_

Don't know

[ASKED OF ALL / NOT REQUIRED]

Distressed municipalities are defined by the Connecticut Department of Economic and Community Development using statistical indicators measuring the fiscal capacity of each municipality.

For more information and to see a list of distressed municipalities, click [HERE](#).

6. Would you say...?

All the communities you serve are distressed

Some of the communities you serve are distressed

None of the communities you serve are distressed

Other (please explain) \_\_\_\_\_

This does not apply to your position

[ASKED OF THOSE WHO INDICATED THEY SERVE DISTRESSED COMMUNITIES / NOT REQUIRED]

7. Which community(ies) that you serve are distressed? [OPEN ENDED] \_\_\_\_\_

Next, we have some questions about the focus of your organization.

### Organizational Focus

[ASKED OF ALL]

8. Does your organization provide information or services related to any of the following general coastal topics or issues? Please select all the topics or issues on which you provide information or services. (CHECK ALL THAT APPLY)

**Water quality** (including stormwater management, land use and nutrient loading, ocean acidification, contaminants, and other topics that focus on water quality monitoring or the improvement of waterways)

**Habitat management and restoration** (including eelgrass, wetland, or invasive species management, and other topics that focus on restoring and managing habitat)

**Climate resilience and/or storm preparedness** (including coastal hazard management, living shorelines, flood protection, vulnerability assessments, and other topics that focus on creating resilient communities)

**Educational programming** (including developing content programs that promote environmental literacy, providing hands-on opportunities for environmental stewardship for educators, students, volunteers, or community members)

**Don't know**

**None of these**

[ASKED OF THOSE WHO INDICATED THEY FOCUS ON MORE THAN ONE TOPIC; RESPONDENTS WILL ONLY BE SHOWN THE TOPICS THEY SELECTED.]

9. Of the topics you selected, which topics would you say are **your** primary focus in **your current role**? (CHECK ALL THAT APPLY)

Water quality

Habitat management and restoration

Climate resilience and/or storm preparedness

Educational programming

Don't know

[ASKED OF ALL]

10. How would you describe the audience you serve? (CHECK ALL THAT APPLY)

- For profit businesses
- The public
- NGOs and nonprofits
- Local government officials (elected or unelected)
- State government officials (elected or unelected)
- Federal government officials (elected or unelected)
- Tribal (sovereign, domestic tribal nations or governments)
- Formal educators or educational institutions
- Informal educators
- Students (PreK, K-12, college)
- Media
- Faith based organizations
- Volunteers
- Other (please specify) \_\_\_\_\_
- Don't know

### EDUCATION MARKET ANALYSIS

[THIS SECTION WILL ONLY BE ASKED OF THOSE WHO INDICATED THAT PROVIDING EDUCATION IS THEIR PRIMARY FOCUS AND/OR THOSE WHO SELECTED THE PUBLIC, FORMAL EDUCATORS OR EDUCATIONAL INSTITUTIONS, INFORMAL EDUCATORS, AND/OR STUDENTS AS THE AUDIENCE THEY SERVE]

The following questions will help the Reserve better understand the existing education programming and make decisions to meet the needs of local communities and individuals.

11. What audiences does your educational programming serve? (CHECK ALL THAT APPLY)

- I do not provide educational programming for any of these audiences
- Pre-K/K
- Elementary (grades 1-4)
- Middle school (grades 5-8)
- High school teachers (grades 9-12)
- Community college
- 4-year college or university
- Regional or school system (multiple grade and learning levels)
- Public (youth under the age of 18)
- Public (adults over the age of 18)
- Informal educators
- Formal educators
- Other (please specify) \_\_\_\_\_

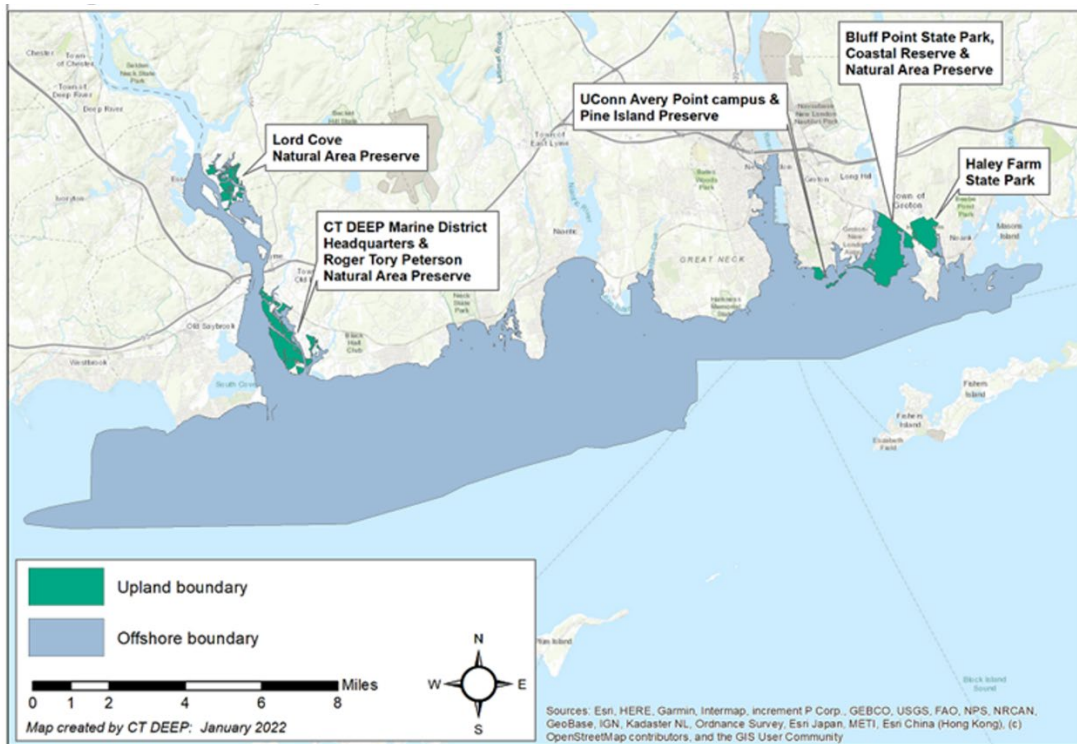
12. Does your and/or your organization's educational programming provide any of the following? (CHECK ALL THAT APPLY)

- Off-site field-based programs
- Classroom programs

- On-site schoolyard programs
- Lab-based programs
- Lesson plans or classroom resources
- Activities for people with disabilities
- Teacher or formal educator training or workshops
- Internship opportunities (under 18)
- Internship opportunities (18+)
- Volunteer opportunities (under 18)
- Volunteer opportunities (18+)
- Data collection opportunities
- Programs that align with the Next Generation Science Standards
- Materials for loan, such as thematic trunks, water testing kits, etc.
- Other (please specify) \_\_\_\_\_
- Don't know
- None of these



There are many public sites within the Reserve that can be used for educational programming. The Reserve boundary can be seen on the map below.



14. From the following list, please select the Reserve sites that have been used or are used in your educational programming. If there are other state parks or sites within the targeted watershed boundary that you have used in your educational programming, please specify which sites you've used.

Haley Farm State Park (Groton, CT)

Bluff Point State Park (Groton, CT)

Thames River (or shoreline)

Connecticut River (or shoreline)

Other state park within boundary (please specify) \_\_\_\_\_

Other sites within boundary (please specify) \_\_\_\_\_

Don't know

None of these

15. You said you've used or are currently using Reserve sites in your educational programming. Please briefly explain how you've used these sites in your educational programming.

[OPEN ENDED] \_\_\_\_\_

16. Does your agency, organization, or entity offer any incentives for participating in your educational programming? (Incentives can include transportation, childcare, food, monetary stipends, etc.)

Yes, we currently offer incentives

Yes, we do not currently offer incentives but we have in the past

No

Don't know

[IF PROVIDES INCENTIVES FOR PARTICIPATION]

17. What incentives [DO YOU/DID YOU PROVIDE IN THE PAST] for participating in your educational programming?

[OPEN ENDED]\_\_\_\_\_

18. From your perspective, what gaps in teacher training and educational programming can the Reserve help with? If none, enter "none."

[OPEN ENDED]\_\_\_\_\_

### **PERSONAL INTERESTS/NEEDS AND ORGANIZATION INTERESTS/NEEDS FOR TRAINING**

[STATEMENT MADE TO ALL]

The Reserve's Training Program brings information to practitioners for improved decision making on a variety of coastal management topics.

[ASKED OF ALL]

19. Below is a list of topics on which the Reserve or its partners have expertise. On which topics would you benefit from training (e.g. workshop, site visit, and/or direct technical assistance)? (CHECK ALL THAT APPLY)

Water quality

Stormwater management

Green infrastructure (e.g., rain gardens, bioswales)

Structural technology (e.g., backflow preventers, permeable pavement, structural Best Management Practices (BMPs))

Other stormwater management topic (please specify) \_\_\_\_\_

Land use and nutrient loading to coastal waters

Benefits of natural habitats on water quality (e.g., wetlands, riparian buffers, shellfish beds)

Ocean acidification

Pathogen monitoring

Habitat management and restoration

Eelgrass management and restoration

Assessing and managing tidal restrictions/road stream crossings

Tidal wetland/marsh migration

Protecting coastal resources such as dunes, tidal wetlands, bluffs/escarpments

Living shorelines for habitat restoration and protection

Invasives assessment and management

Terrestrial invasives

Freshwater invasives

Marine invasives

Other invasives assessment and management topic (please specify)

\_\_\_\_\_

Blue carbon

Role of riparian buffers

Watershed assessment

Habitat mapping

Soil survey mapping applications

- Sea floor mapping applications
- Stream barrier removal for wildlife migration (dams, culverts)
- Climate resilience and/or storm preparedness
  - Coastal flooding
  - Coastal hazards management and planning for sea level rise
  - Nature-based solutions to address flooding and erosion
    - Green infrastructure / stormwater management (e.g., raingardens, bioswales)
    - Living shorelines techniques
      - Site assessment
      - Design criteria
      - Permitting
      - Monitoring protocols
      - Use of reef balls or other artificial reef components
      - Other living shoreline technique topic (please specify) \_\_\_\_\_
    - Other nature-based solution to address flooding and erosion topic (please specify) \_\_\_\_\_
- Municipal climate resilience
  - Zoning for climate resilience (updates and review of regulations, codes, and ordinances)
  - Vulnerability assessment
  - Other municipal climate resilience topic (please specify) \_\_\_\_\_
- Other topic not mentioned here \_\_\_\_\_
- Don't know

[ASKED OF ALL AND ONLY TOPICS SELECTED IN THE PREVIOUS QUESTION WILL APPEAR IN THE LIST]

20. Which of the topics you selected represent your highest or most immediate need for training? (CHECK ALL THAT APPLY)

- Water quality
  - Stormwater management
    - Green infrastructure (e.g., rain gardens, bioswales)
    - Structural technology (e.g., backflow preventers, permeable pavement, structural Best Management Practices (BMPs))
    - Other stormwater management topic you listed
  - Land use and nutrient loading to coastal waters
  - Benefits of natural habitats on water quality (e.g., wetlands, riparian buffers, shellfish beds)
  - Ocean acidification
  - Pathogen monitoring
- Habitat management and restoration
  - Eelgrass management and restoration
  - Assessing and managing tidal restrictions/road stream crossings
  - Tidal wetland/marsh migration
  - Protecting coastal resources such as dunes, tidal wetlands, bluffs/escarpments

- Living shorelines for habitat restoration and protection
- Invasives assessment and management
  - Terrestrial invasives
  - Freshwater invasives
  - Marine invasives
  - Other invasives assessment and management topic you listed
- Blue carbon
- Role of riparian buffers
- Watershed assessment
- Habitat mapping
- Soil survey mapping applications
- Sea floor mapping applications
- Stream barrier removal for wildlife migration (dams, culverts)
- Climate resilience and/or storm preparedness
  - Coastal flooding
  - Coastal hazards management and planning for sea level rise
  - Nature-based solutions to address flooding and erosion
    - Green infrastructure / stormwater management (e.g., raingardens, bioswales)
    - Living shorelines techniques
      - Site assessment
      - Design criteria
      - Permitting
      - Monitoring protocols
      - Use of reef balls or other artificial reef components
      - Other living shoreline technique topic you listed
    - Other nature-based solution to address flooding and erosion topic you listed
- Municipal climate resilience
  - Zoning for climate resilience (updates and review of regulations, codes, and ordinances)
  - Vulnerability assessment
  - Other municipal climate resilience topic you listed
- Other topic you mentioned
- Don't know
- None of these

[ASKED OF ALL; ADDITIONAL HIGH PRIORITY TOPICS WILL ONLY APPEAR AS THE PREVIOUS IS ANSWERED. RESPONDENTS WILL NOT BE SHOWN THE OPTION TO ENTER 10 HIGH PRIORITY AREAS.]

21. In addition to the topics we just asked you about, the Reserve's Training Program is interested in identifying any additional priority coastal management topics that are important to you. Below, please list any additional topics that you consider a **HIGH PRIORITY** for coastal training. This can include coastal issues you address or encounter regularly, as well as any topics or areas you think are not being adequately addressed through existing training opportunities.

Please enter the **HIGH PRIORITY** topic areas you have for coastal training in the following textboxes and describe and/or explain each as necessary:

High Priority Topic Area 1:

\_\_\_\_\_

High Priority Topic Area 2:

\_\_\_\_\_

High Priority Topic Area 3:

\_\_\_\_\_

High Priority Topic Area 4:

\_\_\_\_\_

High Priority Topic Area 5:

\_\_\_\_\_

High Priority Topic Area 6:

\_\_\_\_\_

High Priority Topic Area 7:

\_\_\_\_\_

High Priority Topic Area 8:

\_\_\_\_\_

High Priority Topic Area 9:

\_\_\_\_\_

High Priority Topic Area 10:

\_\_\_\_\_

[ASKED OF ALL]

22. What are the most significant challenges you face in addressing these high priority issues? (CHECK ALL THAT APPLY)

I have not faced any challenges in addressing these issues

I lack the knowledge to address these issues

I am unsure where to access information on these topics

I am unsure of organizations that offer the training I need

There is too much or conflicting information on topics

There is not enough information on topics

My organization has capacity / staffing issues

Other (please specify) \_\_\_\_\_

Don't know

**Coastal Land Use/Other Municipal Questions**

[ASKED OF ALL MUNICIPAL STAFF]

23. For each of the following topics, please indicate what you think will be the biggest municipal management challenges you will face from each in the next 5 years. If you do not envision any challenges in the next 5 years, enter none.

If there is a specific component of each that you are concerned about, please describe the concern, otherwise you can leave that part blank.

Sea level rise \_\_\_\_\_

Changes in precipitation events flooding, infrastructure vulnerability, stormwater management, etc. \_\_\_\_\_

Erosion (coastal) \_\_\_\_\_

Aging infrastructure (including dams) \_\_\_\_\_

Drought conditions—reservoirs depleted, lack of water for irrigation \_\_\_\_\_

Prolonged heat waves \_\_\_\_\_

Vector born diseases (mosquitoes) \_\_\_\_\_

[ASKED OF MUNICIPAL STAFF, NONPROFIT STAFF, LAND TRUSTS/OPEN SPACE COMMITTEE MEMBERS]

24. In your opinion, which of the following coastal land use topics would be most beneficial for training at the local / municipal level? (CHECK ALL THAT APPLY)

Coastal hazards management and planning for sea level rise

Water-dependent use prioritization at waterfront sites, including planning for public access

Protecting coastal resources such as dunes, tidal wetlands, bluffs/escarpments, and coastal water quality

Living shoreline techniques and allowing for tidal wetland migration

Designing rain gardens and vegetated buffers using native plant species

Overview of coastal area management regulations

Public access

Other (please specify)

Don't know

[ASKED OF THOSE WHO SELECTED PUBLIC ACCESS AS THE MOST BENEFICIAL LAND USE TOPIC]

25. Are you satisfied with the amount of coastal public access in the town where you work?

Yes

No

Don't know

[ASKED OF THOSE WHO SELECTED PUBLIC ACCESS AS THE MOST BENEFICIAL LAND USE TOPIC]

26. Are there barriers to using existing public access sites or planning for new access sites in your community? (Please select both if they both apply.)

Yes, barriers to using public access sites (please briefly explain)\_\_\_\_\_

Yes, barriers to planning for new access sites in my community (please briefly explain)

\_\_\_\_\_

No barriers to either

Don't know

[ASKED OF THOSE WHO INDICATED THERE ARE BARRIERS TO PLANNING NEW ACCESS SITES]

27. Are there specific barriers you have to obtaining more public access through the coastal site plan review process? If yes, please explain. If no, enter no.

[OPEN ENDED]\_\_\_\_\_

[ASKED OF THOSE WHO SELECTED PUBLIC ACCESS AS THE MOST BENEFICIAL LAND USE TOPIC]

28. Are you familiar with the online Coastal Public Access Guide?

Yes

No

Don't know

[ASKED OF THOSE WHO KNOW ABOUT THE COASTAL PUBLIC ACCESS GUIDE]

29. Do you have recommendations for improving the guide? If yes, please list them here. If no, enter "no."

[OPEN ENDED]\_\_\_\_\_

[ASKED OF THOSE WHO SELECTED PUBLIC ACCESS AS THE MOST BENEFICIAL LAND USE TOPIC]

30. Would you like information/training on using the guide?

Yes

No

Don't know

**Skill Development Needs**

[ASKED OF ALL]

31. Which type of skill-based training, if any, would be most beneficial to you in your current position? (CHECK ALL THAT APPLY)

Please note that the Reserve partners with the National Oceanic and Atmospheric Administration to provide many skill-based trainings.

Meeting facilitation

Conducting interviews

Survey design

Project management

Leading focus groups

Economic valuation (benefit cost analysis, ecosystem services)

Stakeholder engagement

Building trust with communities

Other (please specify) \_\_\_\_\_

Don't know

None of these

[ASKED OF ALL]

32. What are the most significant challenges for you in participating in coastal decision making or management skill-based workshops/trainings /events?

Cost of participation

Lack of or limited staff or personnel

Coastal training is not supported by organization

Lack of time

Coastal training is not a top priority in my position

Conflicting priorities

Scheduling issues

Other (please specify) \_\_\_\_\_

Don't know

**Need for Training Overall**

[ASKED OF ALL]

33. Have you ever participated in a training (e.g., a workshop, technical assistance, site visit) conducted by the Reserve?

Yes

No

Don't know

[ASKED OF ALL]

34. How interested are you in attending a coastal training? Would you say you are very, somewhat, a little, or not at all interested?

Very interested

Somewhat interested

A little interested

Not all interested

Don't know

[ASKED OF THOSE WHO INDICATED A LEVEL OF INTEREST LESS THAN VERY INTERESTED]

35. What are the main reasons you are NOT more interested in receiving coastal training?

Do not need coastal training

My coastal decision-making responsibilities do not require it

Do not have time for coastal training

Do not have funds for coastal training

Coastal trainings are not supported by my agency, organization, or entity/in my role

Other (please specify) \_\_\_\_\_

Do not know

[ASKED OF ALL]

36. What organizations typically provide you with training on coastal management topics? If none, enter "none."

[OPEN ENDED] \_\_\_\_\_

### **TRAINING STRUCTURE, COMMUNICATION, AND DELIVERY PREFERENCES**

Please answer the following questions to help us understand what program logistics work best for you. We would like to know more about your preferences for such programming.

#### **Location and Format of Training**

[ASKED OF ALL]

37. **How long are you willing to travel for a training event, such as a workshop or site visit? [CHECK ONLY ONE]**

Not willing to or cannot travel for coastal training

Less than 30 minutes

31 to 60 minutes

More than 60 minutes

No preference

[ASKED OF ALL]

38. **Do you prefer in-person classroom events, in-person field trips, or virtual events?**

**[CHECK ONLY ONE]**

In-person event – classroom

In-person event – field trip

Virtual event (i.e., online, such as a webinar or Zoom meeting)

Other (please specify) \_\_\_\_\_

No preference

#### **Timing of Training**

[ASKED OF ALL]

39. **Which of the following timeframes do you most prefer for in-person coastal training events? [CHECK ONLY ONE]**

Half day (3-4 hours)

Full day (7 to 8 hours)

Multiple days

No preference

[ASKED OF ALL]

40. **For training events** either in-person or online **that are 4 hours or less, do you prefer morning, afternoon, or evening sessions?** *(CHECK ALL THAT APPLY)*

- Morning
- Afternoon
- Evening
- No preference

[ASKED OF ALL]

41. **In which of the following seasons do you like to attend coastal training events?** **(CHECK ALL THAT APPLY)**

- Spring
- Summer
- Fall
- Winter
- No preference
- Don't know

**Presentation of Training**

[ASKED OF ALL]

42. **The Reserve Training Program events can include a variety of components. Most of these components can be implemented in-person or virtually (with the exception of hands-on field activities and site visits or demonstrations, which cannot be implemented virtually).**

Please rate each of the following in terms of their value to you as part of a coastal training event, on a scale of 1 to 3, where 1 is no value at all and 3 is extremely valuable.

	1 (no value at all)	2	3 (extremely valuable)	Don't know
<b>Webinars</b>				( )
<b>In-person half or full day workshop</b>				( )
<b>Small group break-out activities</b>				( )
<b>Panel or roundtable discussions</b>				( )
<b>Site visits or demonstrations (in-person only)</b>				( )

[ASKED OF ALL]

43. **Are there any other type of events or training methods you would like to have included? If yes, what are they? If no, enter "no." [OPEN ENDED]**

---

[ASKED OF ALL]

44. Do you think your agency, organization, or entity could benefit from coastal training, materials, or programs in another language? If yes, please indicate the language(s) in which you would like to see coastal training, materials, or programs presented. If no, enter "no." \_\_\_\_\_

### **Incentives**

[ASKED OF ALL]

45. Are there any incentives that would encourage you to attend workshops/trainings/events? (CHECK ALL THAT APPLY)
- Professional development hours
  - Continuing Education Units (CEUs)
  - American Planning Association (APA)/American Institute of Certified Planners (AICP) credits
  - The Association of State Floodplain Managers (ASFPM) credits
  - Monetary stipends
  - Transportation
  - Childcare services
  - Food and drinks
  - Other (please specify) \_\_\_\_\_
  - Don't know
  - None of these

### **Future Participation in CTP**

[ASKED OF ALL]

46. **Is there anything that would make you more likely to participate in training or education through the Reserve Training Program in the next 2 years? If no, enter "no."**  
[OPEN ENDED] \_\_\_\_\_

**Information and Communication**

[ASKED OF ALL]

47. In which of the following ways do you like to receive information about coastal training and education opportunities, announcements, and updates? (CHECK ALL THAT APPLY)

(We are not sending any information at this time. We would simply like to know more about the best ways to contact you with coastal training and education opportunities. If you would like to include your contact information below, please do so. If you would prefer not to provide your contact information, you may leave that part blank. Note that your contact information will not be associated with your responses to this survey. Survey results will be reported in aggregate.)

Do not need to receive information

Direct mail (if willing, please share mailing address)

---

 Direct email (if willing, please share email address)

---

 Social media (please specify platform(s)/app(s))

---

 Community or network listserv (please specify, which listserv) \_\_\_\_\_

Website events page

Other (please specify) \_\_\_\_\_

Don't know

[ASKED OF ALL]

48. Do you see opportunities for collaboration between the **Reserve** and your agency, organization, or entity? If yes, please describe. If no, enter "no."

[OPEN-ENDED] \_\_\_\_\_

**FUTURE COASTAL ISSUES AND NEEDS**

[ASKED OF ALL]

49. Are there **emerging** coastal issues we should consider for future trainings or education? If yes, please explain. If no, enter "no."

[OPEN ENDED] \_\_\_\_\_

**DEMOGRAPHICS**

**Thank you. You are almost done. These last three questions help us analyze the results.**

[ALL QUESTIONS ASKED OF ALL]

50. What is your age?

[OPEN ENDED] \_\_\_\_\_

51. What race or ethnic background do you consider yourself? (CHECK ALL THAT APPLY)

White or Caucasian

Black or African American

Hispanic or Latino

American Indian/Indigenous

Middle Eastern

East Asian (from Japan, China, Korea, Philippines, etc.)

South Asian (from India, Pakistan, Bangladesh, etc.)

Other (please specify) \_\_\_\_\_

Don't know

Prefer not to answer

[OPTIONAL AND ONLY ASKED OF THOSE WHO DID NOT PROVIDE THEIR EMAIL ADDRESS IN PREVIOUS COMMUNICATION QUESTION]

52. We would love to keep you informed on the results of this needs assessment and upcoming training and education events and programs that meet the needs you've conveyed during this survey.

If you would like to learn about the results of this survey and/or would like to be added to the Reserve's email list where they highlight upcoming events and other updates, please provide your email address. \_\_\_\_\_

## ABOUT RESPONSIVE MANAGEMENT

Responsive Management is an internationally recognized survey research firm specializing in natural resource and outdoor recreation issues. Our mission is to help natural resource and outdoor recreation agencies, businesses, and organizations better understand and work with their constituents, customers, and the public.

Focusing only on natural resource and outdoor recreation issues, over the past 35 years, Responsive Management has conducted multimodal, telephone, mail, and online surveys, as well as on-site intercepts, focus groups, public meetings, personal interviews, needs assessments, program evaluations, marketing and communication plans, and other forms of human dimensions research measuring how people relate to the natural world. Utilizing our in-house, full-service survey facilities with 75 professional interviewers, we have conducted studies in all 50 states and 15 countries worldwide, totaling more than 1,200 human dimensions projects *only* on natural resource and outdoor recreation issues.

Responsive Management has conducted research for every state fish and wildlife agency and every federal natural resource agency, including the U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Administration, the National Marine Fisheries Service, the National Park Service, the U.S. Forest Service, the Bureau of Land Management, the U.S. Army Corps of Engineers, and the U.S. Coast Guard. Additionally, we have also provided research for all the major conservation NGOs including the Archery Trade Association, the American Sportfishing Association, the Association of Fish and Wildlife Agencies, the Hunters' Leadership Forum, Ducks Unlimited, the Izaak Walton League of America, the National Shooting Sports Foundation, the National Wildlife Federation, the Recreational Boating and Fishing Foundation, the Rocky Mountain Elk Foundation, Safari Club International, the Sierra Club, Trout Unlimited, and the Wildlife Management Institute.

Other nonprofit and NGO clients include the American Museum of Natural History, the BoatUS Foundation, the National Association of Conservation Law Enforcement Chiefs, the National Association of State Boating Law Administrators, and the Ocean Conservancy. As well, Responsive Management conducts market research and product testing for numerous outdoor recreation manufacturers and industry leaders, such as Winchester Ammunition, Vista Outdoor (whose brands include Federal Premium, CamelBak, Bushnell, Primos, and more), Trijicon, Yamaha, and others.

Responsive Management also provides data collection for the nation's top universities, including Auburn University; Boise State University; California Polytechnic State University, San Luis Obispo; Clemson University; Colorado State University; Cornell University; Duke University; George Mason University; Michigan State University; Mississippi State University; North Carolina State University; Oregon State University; Penn State University; Rutgers University; Stanford University; State University of New York; Stony Brook University; Texas Tech; University of Alaska; University of California-Davis; University of California-San Diego; University of Connecticut; University of Florida; University of Hawai'i; University of Montana; University of New Hampshire; University of Southern California; Virginia Commonwealth University; Virginia Tech; West Virginia University; Yale University; and many more.

Our research has been upheld in U.S. Courts, used in peer-reviewed journals, and presented at major wildlife and natural resource conferences around the world. Responsive Management's research has also been featured in many of the nation's top media, including *Newsweek*, *The Wall Street Journal*, *The New York Times*, Fox News, CNN, National Public Radio, and on the front pages of *The Washington Post* and *USA Today*.