

Grand Bay National Estuarine Research Reserve
Coastal Training Program
Market Analysis Report

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Executive Summary

Introduction

The Mississippi Department of Marine Resources (MDMR) Grand Bay National Estuarine Research Reserve (GNDNERR) is developing a regional Coastal Training Program (CTP) with funding and guidance from the National Oceanic and Atmospheric Administration's (NOAA) Estuarine Reserves Division (ERD). The goals of the CTP are: 1) to improve decision-making related to coastal resource management at local and regional levels by providing coastal resource managers with information, tools, and techniques necessary to make informed resource management decisions within their respective fields; 2) increase collaborations across sectors and disciplines related to coastal management issues; and, 3) advance comprehension of the environmental, social, and economic consequences of human activity within the coastal landscape.

The attached report encompasses the results of a market analysis (MA) survey conducted by GNDNERR staff to initiate the CTP planning and development process. Information acquired through this assessment will help identify the reserve's niche within the coastal training community by matching CTP services with audiences in order to better serve coastal resource managers and avoid duplication of existing training efforts. The goals of the market analysis are:

- Identify audiences currently being targeted by existing coastal resource management training programs;
- Identify coastal resource issues that existing training programs are currently addressing;
- Identify and describe gaps in target audiences and training topics; and,
- Identify partnerships for future training opportunities.

Methods

Forty-six coastal training providers, representing 26 agencies that serve a region extending across Mobile and Baldwin Counties in Alabama; Jackson, Harrison, and Hancock Counties in Mississippi; and Lafayette, East Baton Rouge, Orleans, Lafourche, and Terrebonne Parishes in Louisiana, participated in the GNDNERR market analysis assessment during June and July, 2004. SurveyMonkey, a web-based survey data collection tool was used to distribute surveys and analyze data. Further analysis was performed by reserve staff and Dr. Benedict Posadas, Associate Extension/Research Professor of Economics at Mississippi State University's Coastal Research and Extension Center. CTP Advisory Committee members were also active participants in the review and analysis of survey data.

Results/Recommendations

Market analysis results indicate that there is a niche within the existing Gulf Coast resource management training market for the GNDNERR CTP. Specific recommendations concerning potential target audiences, training topics, and partnerships are addressed below.

Target Audience

Survey participants were given a list of coastal resource management audiences and asked to identify those targeted by existing training programs as well as those audiences perceived to be in need of additional training. Results indicated that the audiences targeted most often by existing training programs include:

- federal government employees;
- conservation commissions;
- academic community members;
- local, state, and/or federal land managers; and,
- business community members.

The majority of survey respondents perceived state and federal legislators, business community members and organizations, realtors, city managers, city council members, planning/zoning board members, and county supervisors to be the audiences most in need of additional coastal resource management training. The GNDNERR CTP will initially focus on the training needs of a select group that can be categorized as “local elected and appointed officials.” This audience will include representatives from the following groups:

- city managers and staff;
- city council members;
- mayors and staff;
- planning/zoning board members and staff; and,
- county supervisors.

It is important to note that no single audience included in the survey was perceived to be predominantly “low need” for additional training; therefore, the market is open to future training events that target audiences outside of the “local elected and appointed officials” category.

Coastal Resource Management Training Topics

Survey participants were provided a list of coastal resource management training topics separated into five categories (habitat issues, coastal management issues, water/air issues, planning and regulatory issues, and resource management issues). Participants were asked to identify issues addressed through training programs over the past five years as well as issues they propose to address within the next five years. Finally, survey participants were asked to rank each issue as high need for additional training, medium need for additional training, or low need for additional training. Results indicated that the following issues have been covered most frequently by existing training programs:

- wetland protection and management;
- environmental education;
- native plants;
- non-point source pollution;
- watershed management and planning; and,
- GIS.

Those issues that are perceived as being “highest need for additional training” by 70% or more of the survey population include:

- non-point source pollution;
- watershed management/planning;
- habitat restoration;
- conservation land planning;
- wetland protection;
- sustainable building and development;
- coastal zone management; and,
- invasive species.

Some of the issues listed in the above categories overlap. This trend indicates that many training providers have accurately identified these issues as key training topics; however, there is still a perception of need for additional training opportunities in these areas. It is also important to note that none of the issues addressed by the survey were considered to be “low need for additional training.” This implies that the existing training market is open to future programs addressing a variety of issues. The assessments contained in this report are based on the perceptions of existing training providers, and one should keep in mind that this information will be further supplemented with needs assessment survey data in order to ascertain the specific training needs of the target audience.

Partnerships

The majority of survey respondents demonstrated a willingness to partner with the GNDNERR CTP to provide future training opportunities to coastal resource managers. Survey respondents would like to see the CTP provide funding, content expertise/technical assistance, and facilities. In return, survey respondents are most willing to provide content expertise/technical assistance, trainers, and marketing assistance to the GNDNERR CTP.

Overall, the findings enclosed in this report verify the existence of a successful, diverse coastal management training market along the north-central Gulf Coast. The results indicate that there is room to provide a variety of additional trainings to a number of different audiences. It is the intent of the GNDNERR CTP to use this information to develop a coordinated approach to regional coastal resource management training in an attempt to fill gaps without duplicating existing efforts.

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Introduction

The Grand Bay National Estuarine Research Reserve (GNDNERR) promotes wise stewardship of coastal environments along the north-central Gulf of Mexico through the implementation of estuarine education and outreach, research, and resource management programs. The GNDNERR was designated in 1999 as the 24th of 26 reserves in the National Estuarine Research Reserve System (NERRS). The National Oceanic and Atmospheric Administration's (NOAA's) National Ocean Service (NOS) implements NERRS as part of the Coastal Zone Management Act (CZMA), which established a network of estuarine reserves, each representing unique biogeographical regions of the United States. Within this network of living laboratories, reserve scientists and educators work together to communicate new findings to coastal managers and other community decision-makers.

GNDNERR is developing a regional Coastal Training Program (CTP) with funding and guidance from the NOAA Estuarine Research Division (ERD). The goals of the CTP are: 1) to improve decision-making related to coastal resource management at local and regional levels by providing coastal resource managers with information, tools, and techniques necessary to make informed resource management decisions within their respective fields; 2) increase collaboration across sectors and disciplines related to coastal management issues; and, 3) advance comprehension of the environmental, social, and economic consequences of human activity within the coastal landscape. The program will target coastal decision-makers (e.g., individuals who make routine decisions about the management of coastal resources in a professional or volunteer capacity) and will provide an opportunity to create new partnerships and enhance existing interagency partnerships in an effort to implement a coordinated approach to coastal resource management training along the north-central Gulf Coast.

Among the initial steps associated with the CTP development process is the completion of a market analysis. For the purposes of this report, a market analysis is defined as a systematic tool for addressing the specific training abilities and priorities of the GNDNERR and other local and regional training programs and the identification of potential audiences for future services. The market analysis will help identify the Reserve's niche within the coastal training community by matching services with audiences and avoiding duplication of efforts. The goals of the market analysis are:

- Identify audiences currently being targeted by existing coastal resource management training programs;
- Identify coastal resource issues that existing training programs are currently addressing;
- Identify and describe gaps in targeted audiences and training topics; and,
- Identify partnerships for future training opportunities (Coastal Training Program Planning Phase, CTP Technical Committee Review 2004).

The results of the market analysis will guide the development of the GNDNERR's CTP in order to better serve the training needs of regional coastal resource managers and decision-makers.

Methods

The market analysis was conducted by the GNDNERR CTP Coordinator with guidance from the CTP Advisory Committee (**Appendix A**). The Committee was established in April, 2004 to oversee the CTP development process. Members represent partner organizations and regional interested parties collaborating to facilitate the exchange of ideas and foster support for the CTP at GNDNERR. The Advisory Committee convened in May, 2004 to discuss appropriate geographic boundaries for the market analysis, determine the most appropriate technique for surveying coastal resource managers, create a list of target agencies and organizations, and develop a list of questions to be included in the survey.

Geographic Boundaries of the Grand Bay NERR Market Analysis

The geographic boundary of the GNDNERR market analysis extends across Mobile and Baldwin Counties in Alabama; Jackson, Harrison, and Hancock Counties in Mississippi; and Lafayette, East Baton Rouge, Orleans, Lafourche, and Terrebonne Parishes in Louisiana. Advisory Committee members decided to include Mobile County, Alabama due to the proximity of GNDNERR to the state of Alabama and the assumption that future training programs offered by GNDNERR's CTP will be accessible to coastal resource managers in Mobile County. Committee members acknowledged, however, that since the Weeks Bay NERR (WBNERR) completed a CTP market analysis in 2003, which included Mobile and Baldwin Counties, it would not be necessary to conduct a complete survey of these counties again. Instead, Committee members agreed that applicable Mobile County data should be shared between the two reserves with permission from WBNERR and the South Alabama Regional Planning Commission (SARPC), with whom the Weeks Bay CTP partnered to conduct its market analysis. WBNERR, located in Baldwin County, Alabama, was also included in the scope of the survey due to its close proximity to the GNDNERR and the existing potential for the two reserves to collaborate on future CTP training events. WBNERR was the only Baldwin County organization targeted by this analysis.

Because Louisiana is located within the same biogeographical region as the GNDNERR, Advisory Committee members recommended extending the scope of the market analysis survey west into Louisiana and targeting select coastal resource management agencies to help determine some of the needs of coastal resource managers in that state. This decision provided a snapshot of the coastal resource management training needs of the state and demonstrated a willingness to participate in a regional coastal training program.

Market Analysis Survey and Assessment

Advisory Committee members supported a recommendation by the CTP Coordinator and NERR staff to use SurveyMonkey, a web-based survey data collection tool, to design and administer an on-line survey to coastal resource managers. This recommendation was based on the successes of CTP Coordinators at other reserves who used this website to perform market analysis and needs assessment surveys and who continue to use the software to collect workshop evaluation information. Committee members worked with the CTP Coordinator to develop appropriate questions for the survey, and the on-line questionnaire was piloted to the Committee in early June 2004. Advisory Committee members made recommendations for improvement to the CTP Coordinator, and

adjustments to the survey were made before it was distributed to the target audience. The final version of the survey is included in **Appendix B**.

The names of 115 potential coastal training providers in Mississippi, Alabama, and Louisiana were compiled through a web-based search of Gulf Coast resource management training opportunities. The list was submitted to the CTP Advisory Committee for comment, and adjustments were made based on Committee recommendations. During the months of June and July 2004, e-mails were sent to listed individuals explaining the purpose of the survey and requesting participation in the market analysis process. Several recipients offered information concerning additional points of contact within their organizations, and e-mails were sent to those individuals as well. Follow-up phone calls were made to representatives of various agencies who did not respond to the e-mail request for participation. Training providers who responded affirmatively to the request for participation via e-mail or phone were forwarded a link to the on-line survey.

Results from completed surveys were analyzed using SurveyMonkey. Additional assessments were performed by reserve staff and Dr. Benedict Posadas, Associate Extension/Research Professor of Economics at Mississippi State University's Coastal Research and Extension Center. CTP Advisory Committee members were also active participants in the review and analysis of survey data. SARPC data and the Weeks Bay NERR market analysis report were reviewed separately for trends comparable to the GNDNERR market analysis results.

Results and Discussion

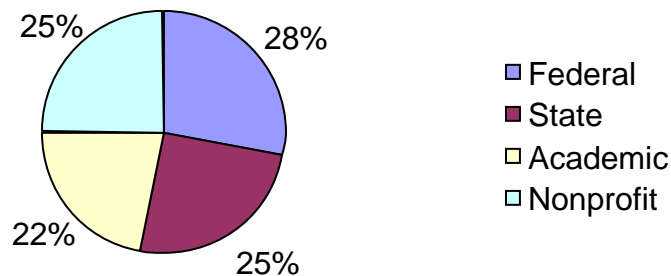
Forty-six surveys were completed by coastal training providers. The success of the survey response rate can be evaluated from multiple perspectives. Sixty-three providers out of 115 targeted trainers responded (either affirmatively or negatively) to the request for participation in the market analysis assessment for an initial response rate of 55%. However, surveys were only administered to those training providers who responded affirmatively to the request for participation. A total of 51 surveys were administered, and 46 of them were returned for a completion rate of 90%. Both the response rate and the completion rate were high, which indicates an elevated level of interest in and support for the CTP. In addition to the data collected through the survey process, the South Alabama Regional Planning Commission (SARPC) provided data from seven Mobile County agencies.

Overview of Agencies Represented

Survey respondents represent 26 agencies in a geographic region that extends from Baldwin and Mobile Counties in Alabama west across Jackson, Harrison, and Hancock Counties in Mississippi. Additionally, this number includes agencies/organizations located in the following parishes in Louisiana: Lafayette, East Baton Rouge, Orleans, Lafourche, and Terrebonne. SARPC contributed data from seven agencies and/or programs with offices in Mobile County that previously participated in a market analysis survey through the Weeks Bay NERR. A total of 32 individual agencies and organizations are represented in this assessment, some of which have multiple offices or programs across the three states (**Appendix C, Table 1**).

Of the 32 participating agencies and organizations, there is almost equal representation among federal, state, academic, and nonprofit interests (**Figure 1**).

Figure 1: Classification of Agencies Represented



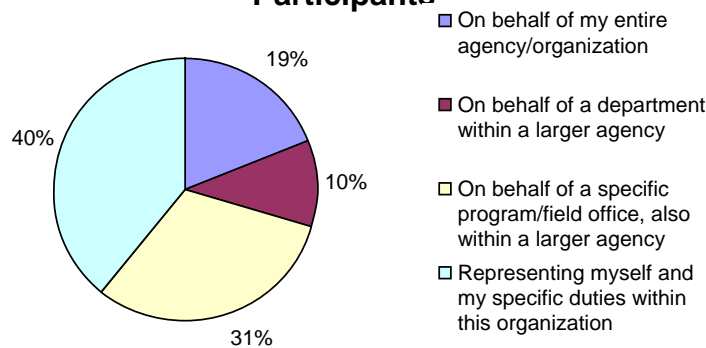
For the remainder of this report, statistics are calculated based on the number of survey respondents who answered each question, rather than agencies represented. Data provided by SARPC for Mobile County agencies is not included in the aforementioned statistics.

Overview of Survey Respondents

Organizational Perspective

Survey participants were asked to clarify their approach to the survey by stating whether they were responding on behalf of an agency, a department within an agency, a program or field office within an agency, or representing only themselves and their specific duties within an organization. This question was designed with state and federal agency personnel in mind because they often direct departments or field offices within larger agencies and could interpret questions differently based on their perspectives. **Figure 2** illustrates the organizational perspectives of the survey participants. The majority of respondents (40%) indicated that they were completing the survey from the perspective of their specific duties within their organizations, while 31% of respondents addressed the survey on behalf of a specific program or field office within a larger agency. Fewer respondents participated in this survey from a broad organizational perspective.

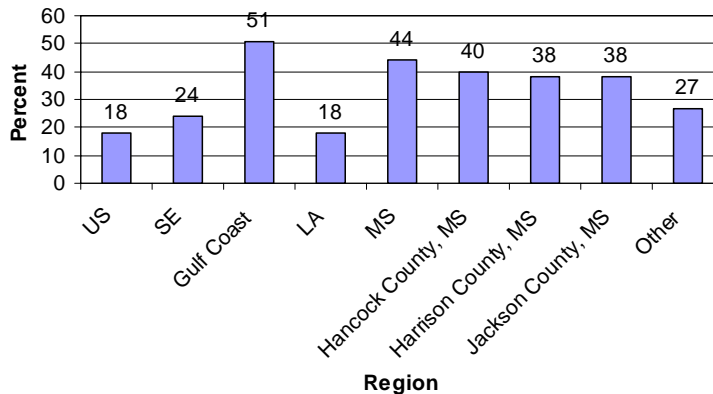
Figure 2: Organizational Perspectives of Survey Participants



Regions Served

The individuals who participated in the GNDNERR CTP market analysis survey represent agencies that serve vast regions of the United States, and many of them serve multiple regions (**Figure 3**).

Figure 3: Regions Served by Participating Agencies/Organizations



*Respondents were encouraged to select all regions served; therefore, combined percents exceed 100.

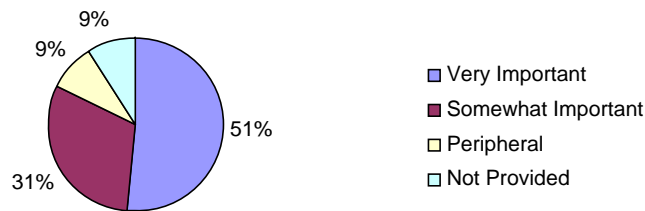
The majority of respondents (51%) reported that their offices serve the Gulf Coast region of the United States, followed by the State of Mississippi and its three coastal counties (Jackson, Harrison, and Hancock). Fewer respondents reported serving Louisiana, the Southeast, and/or the entire United States. Twenty-seven percent of respondents reported serving regions other than those specified in the survey. These regions include the state of Alabama; Stone, George, and Pearl River Counties in Mississippi; Keesler Air Force Base; military bases across the United States; international interests; etc.

Training and Outreach Programs

When asked to specify whether or not training programs and/or outreach materials and science-based information were offered to coastal managers, 80% of respondents reported that they provide training or partner with others to provide training (**Appendix C, Table 2**). Eighty percent also reported providing outreach materials such as newsletters, brochures, web pages, etc. Sixty-seven percent provide science-based information other than newsletters, brochures, and internet information. Only one respondent did not provide training or outreach materials to coastal resource managers.

Next, respondents were asked to rate the importance of coastal training relative to the mission statements of their organizations (**Appendix C, Table 3 and Figure 4**). The majority of respondents (82%) reported that coastal training opportunities are either somewhat important or very important relative to individual mission statements. Eighteen percent of respondents said that training is either peripheral or not provided. Respondents who reported that they did not offer training were automatically taken to the end of the survey. Subsequent statistics in this report reflect the total number of respondents who answered each question.

Figure 4: Importance of Coastal Training Relative to Agency Mission



Characterization of the Existing Training Market

Targeted Training Audiences

Survey respondents were asked to identify audiences targeted by existing training programs. The results indicate that no single audience is being targeted excessively by existing programs (**Table 4**). Audiences targeted most often by training programs include:

- federal government employees;
- conservation commissions;
- academic community members;
- local, state, and/or federal land managers; and,
- business community members.

Audiences targeted least by training opportunities include:

- volunteers on decision-making boards;
- harbor masters and harbor commission members;
- health department employees;
- professional surveyors; and,
- analytical lab technicians.

Table 4
Audiences Targeted by Existing Training Programs

Potential Audiences	% of Training Providers That Target Each Audience
Federal Government Employees	41
Conservation commissions and/or staff	36
Academic Community Members	34
Local, State, and/or Federal Land Managers	33
Business Community Members and/or Organizations	31
City Managers	31
Contractors	31
Land Use Planners	31
Scientists	31
Water Resource Agencies	31
Citizen-Based Watershed Councils	28
Agricultural Sector	28
Environmental Consultants	28
Landscape Design and/or nurseries	28
Media Professionals	28
State and/or Federal Legislators	28
County Supervisors	26
Ecology Tour Operators and/or coastal recreation businesses	26
Neighborhood/Homeowner Associations	26
City Council Members	25
Engineers, Technicians	25
Fishing Organizations or Individuals (Recreational)	25
Non-profit Organization Staff and/or Board Members	25
Enforcement/Regulatory Personnel (including law enforcement, permits)	24
Planning/Zoning Boards and/or Staff	22
Industry, Including Marine Industry	22
Sewage Treatment/Waste Water Management Employees	20
Fishing Organizations/Individuals (Commercial)	19
Realtors and/or real estate developers/architects	19
Volunteers on Decision-Making Boards	17
Health and Safety Department or Boards	17
Harbor masters and Harbor Commission Members	14
Health Department Employees	14
Professional Surveyors	8
Analytical Labs, Including Soil and Water Technicians	6

Respondents were also asked to address the need for additional training among the audiences listed in the survey. Specifically, respondents were asked to provide their

perceptions of training needs among these audiences (**Table 5**). Those audiences perceived as having the highest need for additional training include:

- state and federal legislators;
- business community members and organizations;
- city council members;
- planning/zoning boards and staff;
- county supervisors;
- city managers and staff; and,
- realtors/real estate developers.

Table 5
Perception of Need for Additional Training

Targeted Audiences	High Need for Additional Training (%)	Medium Need for Additional Training (%)	Low Need for Additional Training (%)	Not Sure/ No Opinion (%)
State and/or Federal Legislators	86	3	6	6
Business Community Members and/or Organizations	81	11	3	6
City Council Members	75	14	0	11
Planning/Zoning Boards and/or Staff	75	19	0	6
County Supervisors	74	17	3	6
City Managers	72	17	0	11
Realtors and/or real estate developers/architects	72	14	0	14
Land Use Planners	69	19	6	6
Agricultural Sector	67	22	8	3
Contractors	64	25	8	3
Water Resource Agencies	64	14	14	8
Media Professionals	64	19	8	8
Landscape Design and/or nurseries	58	31	0	11
Engineers, Technicians	56	36	6	3
Citizen-Based Watershed Councils	56	28	3	14
Neighborhood/Homeowner Associations	54	20	9	17
Local, State, and/or Federal Land Managers	53	25	17	6
Industry, Including Marine Industry	53	28	11	8
Harbormasters and Harbor Commission Members	50	31	8	11
Sewage Treatment/Waste Water Management Employees	49	29	11	11
Volunteers on Decision-Making Boards	47	42	0	11
Health and Safety Department or Boards	47	25	11	17
Enforcement/Regulatory Personnel (including law enforcement, permits)	47	25	19	8
Casinos	44	17	14	25
Ecology Tour Operators and/or coastal recreation businesses	43	43	9	6
Fishing Organizations/Individuals (Commercial)	42	44	6	8
Fishing Organizations or Individuals (Recreational)	46	40	6	8
Conservation commissions and/or staff	42	39	6	14
Health Department Employees	39	33	8	19

Table 5 (cont'd)
Perception of Need for Additional Training

Targeted Audiences	High Need for Additional Training (%)	Medium Need for Additional Training (%)	Low Need for Additional Training (%)	Not Sure/ No Opinion (%)
Professional Surveyors	39	25	14	22
Non-profit Organization Staff and/or Board Members	36	42	11	11
Federal Government Employees	36	31	19	14
Scientists	31	19	28	22
Environmental Consultants	31	47	17	6
Academic Community Members	29	47	12	12
Analytical Labs, Including Soil and Water Technicians	19	33	19	28

*Percents are based on the number of people who responded to this question

Although data in **Tables 4 and 5** indicate that training providers perceive elected public officials to be most in need of additional training, there is room in the market to target all of the listed audiences to some extent through future training opportunities. Over half of the listed target audiences were designated as “high need for additional training” by 50% or more of survey respondents. Furthermore, none of the audiences were designated as predominantly “low need for additional training.” All audiences were categorized generally in the high to medium need categories. It is interesting to note that some audiences (e.g., business community members and organizations) were among the audiences targeted most often by existing training programs; however, they were still perceived as being “high need for additional training” by most survey participants. This trend lends support to the conclusion that although training opportunities exist for many audiences, there is still room to target them through future training opportunities.

Coastal Training Topics

Potential training topics were classified into five categories: habitat issues, coastal management, water/air issues, planning and regulatory issues, and resource management issues. Survey participants were asked to identify those issues they have targeted through training programs within the last five years, as well as those issues they intend to cover in the next five years. Finally, survey participants were asked to rank each issue as follows: high need for additional training, medium need for additional training, or low need for additional training.

Habitat Issues

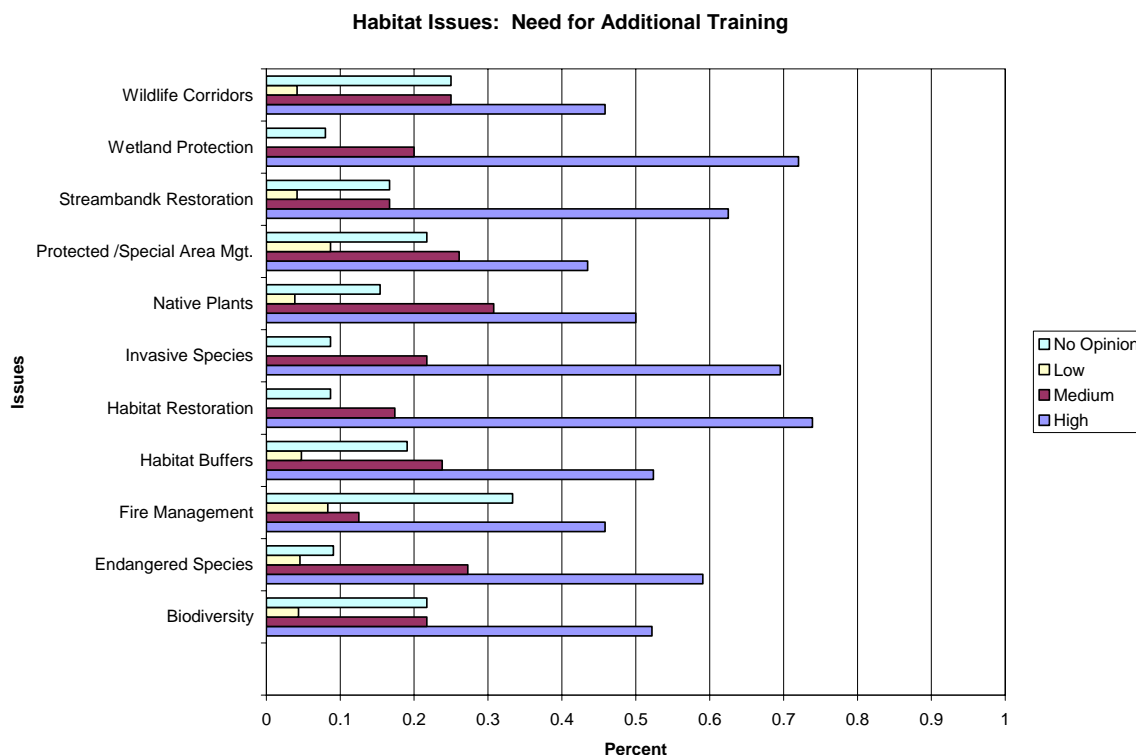
A majority of respondents have offered and propose to continue offering training on a number of topics related to habitat issues (**Table 6**). Most habitat-related training opportunities over the past five years have focused on wetland protection, invasive species, native plants, habitat restoration, and endangered species. These same topics are proposed to be covered again by 42-53% of training providers over the next five years. Conversely, little training has been offered in the past on topics such as wildlife corridors, fire management, and streambank restoration, and few trainers propose to cover these issues over the next five years.

Table 6
Habitat Issues

Habitat Issues: Training Offered	No Training (%)	Offered within past 5 years (%)	To be offered in next 5 years (%)
Wildlife Corridors	69	19	16
Fire Management	62	24	18
Streambank Restoration	56	24	29
Habitat Buffers	48	29	29
Protected/Special Area Management	44	31	31
Endangered or Threatened Species	31	53	44
Habitat Restoration	30	58	42
Invasive Species	26	65	44
Biodiversity	26	42	48
Native Plants	18	61	52
Wetland Protection/Management	15	71	53

*Some rows surpass 100 as respondents were encouraged to choose all that applied.

The perception of need for additional training (**Figure 5**) is highest among issues related to habitat restoration, wetland protection and management, and invasive species. These issues are some of the most popular topics covered by existing training providers. This trend indicates that many training providers have identified these as key issues and consider them to be “high need” topics for future training. Other issues such as streambank restoration and habitat buffers are also considered to be “high need” issues; however, fewer trainers have addressed them in the past or propose to address them in the future.



Coastal Management

With respect to coastal management issues, fewer than 50% of the surveyed training providers have covered such issues over the last five years, and at most only 44% of trainers propose to address these issues over the next five years (**Table 7**). The most popular training topics in this category include beach and nearshore ecology, coastal erosion and accretion, coastal and estuarine processes, and fisheries management. Fewer training opportunities have been offered concerning issues such as port and harbor planning and management, marina management, coastal public access, coastal hazards, recreational use, salt water intrusion, and dredging and filling.

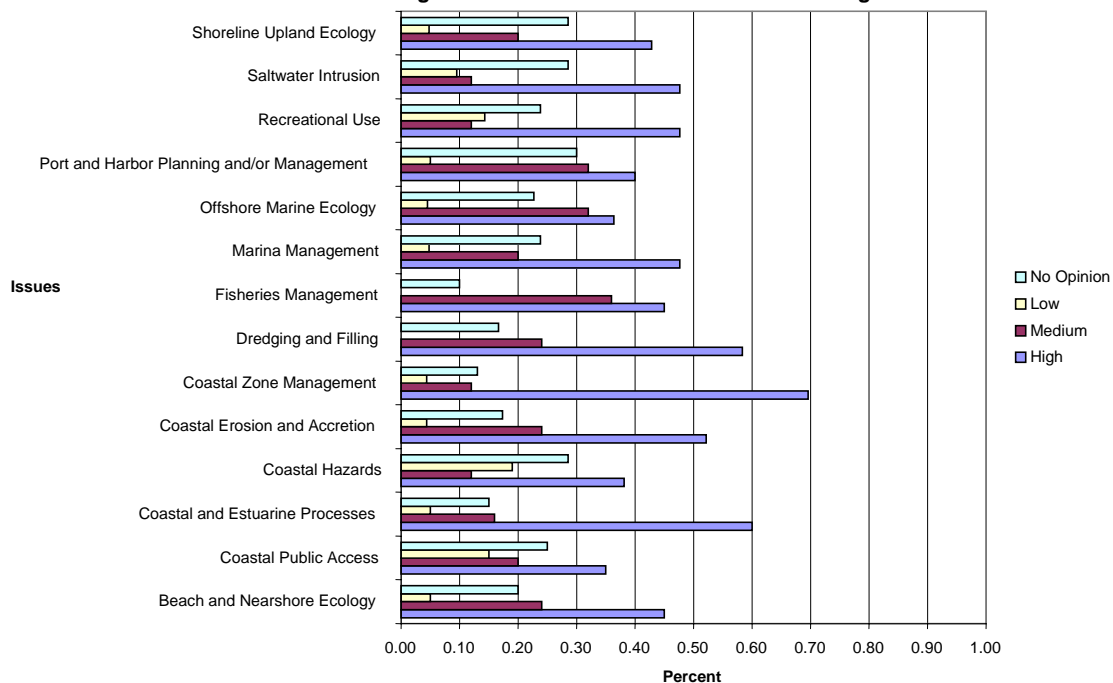
Table 7
Coastal Management Issues

Coastal Management Issues: Training Offered	No Training (%)	Offered within past 5 years (%)	To be offered in next 5 years (%)
Port and Harbor Planning/Management	74	13	13
Marina Management	68	19	23
Coastal Public Access	69	17	17
Coastal Hazards	62	22	19
Recreational Use	58	29	23
Saltwater Intrusion	55	19	23
Dredging and Filling	53	33	30
Coastal Zone Management	48	39	32
Offshore Marine Ecology	47	31	28
Fisheries Management	39	48	36
Shoreline Upland Ecology	39	35	26
Beach and Nearshore Ecology	39	42	42
Coastal Erosion and Accretion	36	45	36
Coastal and Estuarine Processes	34	47	44

*Some rows surpass 100 as respondents were encouraged to choose all that applied.

The perception of need for additional trainings is highest among issues related to Coastal Zone Management, coastal and estuarine processes, dredging and filling, and coastal erosion and accretion (**Figure 6**). Again, respondents ranked all of the issues in this category as predominantly “high need” for additional training. Coastal Zone Management is perceived to be among the “highest need” training issues (defined as issues perceived to be “high need” by 70% or more of the survey population), but only 32% of survey participants proposed to address this topic over the next five years. Since fewer than 50% of providers propose to offer training on any of these topics over the next five years, the market is open to additional training throughout this category.

Figure 6
Coastal Management Issues: Need for Additional Training



Water/Air Issues

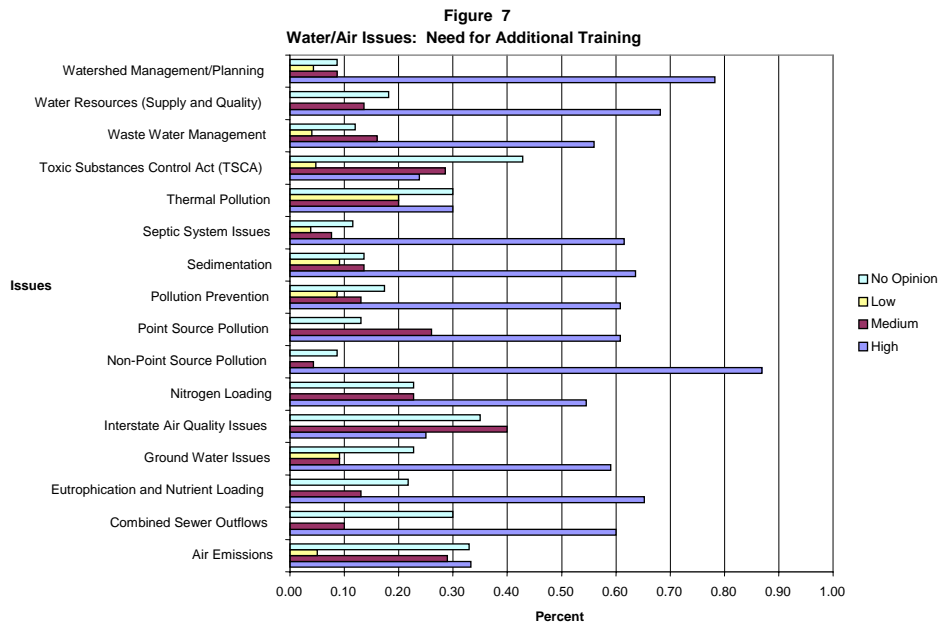
The most popular training topics in the water/air issues category include non-point source pollution and watershed management/planning. Sixty-one percent of training providers have offered programs on non-point source pollution over the last five years, and 48% intend to address this issue again over the next five years. Fifty-nine percent of training providers focused on watershed management, and 47% of them intend to offer future trainings on this issue. Other popular training topics include point source pollution, eutrophication, and pollution prevention. Few training opportunities have addressed topics such as toxic substances control, interstate air quality issues, air emissions, combined sewer outflows, thermal pollution, nitrogen loading, waste water management, or water resource supply and quality.

Table 8
Water/Air Issues

Water/Air Issues: Training Offered	No Training (%)	Offered within past 5 years (%)	To be offered in next 5 years (%)
Toxic Substances Control Act (TSCA)	73	7	13
Interstate Air Quality Issues	72	10	14
Air Emissions	70	13	13
Combined Sewer Outflows	60	23	30
Thermal Pollution	65	16	23
Nitrogen Loading	52	33	30
Waste Water Management	52	32	39
Water Resources (supply and quality)	52	35	29
Sedimentation	50	34	25
Septic System Issues	45	35	29
Ground Water Issues	39	39	33
Eutrophication and Nutrient Loading	36	45	39
Point Source Pollution	36	48	42
Pollution Prevention	34	44	50
Watershed Management/Planning	31	59	47
Nonpoint Source Pollution	24	61	48
Ground Water Issues	39	39	33

*Some rows surpass 100 as respondents were encouraged to choose all that applied.

The perception of need for additional trainings is highest among issues such as non-point source pollution, watershed management and planning, and water resource supply and quality (Figure 7). As in the “habitat issues” category, there is some overlap between issues that have been offered frequently in the past and those that are perceived as “high need” for additional training in the future. Again, this indicates that many training providers have identified these as key issues and consider them to be important topics for future training programs.



Planning and Regulatory Issues

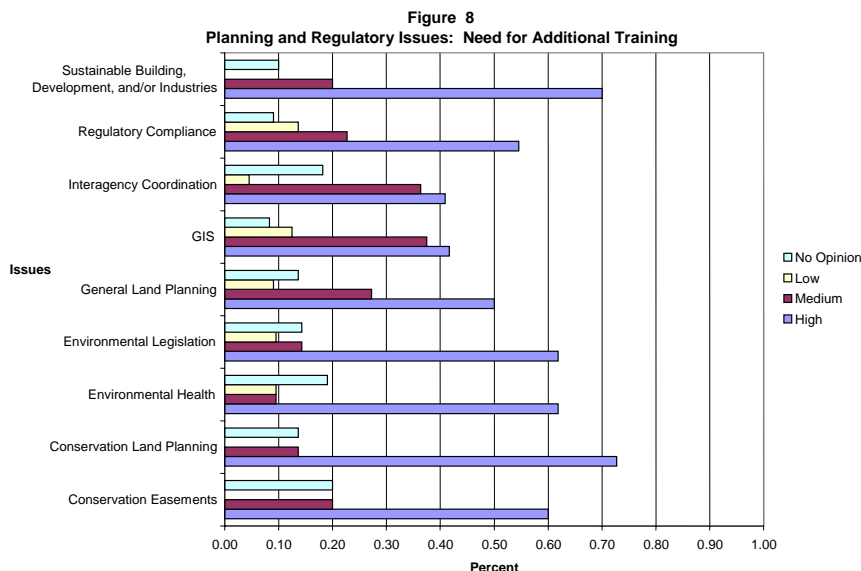
With respect to planning and regulatory issues, most training over the last five years has focused on interagency coordination and GIS training (**Table 9**). Conversely, few training opportunities have been offered addressing subjects such as conservation easements, general land planning, and environmental legislation. According to the survey data, however, fewer than 40% of training providers propose to address any of these issues over the next five years.

Table 9
Planning and Regulatory Issues

Planning and Regulatory Issues: Training Offered	No Training (%)	Offered within past 5 years (%)	To be offered in next 5 years (%)
Conservation Easements	65	26	16
General Land Planning	61	23	19
Environmental Legislation	50	38	31
Regulatory Compliance	48	39	29
Conservation Land Planning	47	38	31
Sustainable Building, Development, and/or Industries	44	41	38
Environmental Health	42	42	33
GIS	41	53	28
Interagency Coordination	39	48	35

*Some rows surpass 100 as respondents were encouraged to choose all that applied.

The perception of need for additional trainings is highest among issues including conservation land planning and sustainable building and development (**Figure 8**). Since fewer than 40% of survey respondents propose to address any of these training topics in the next five years and all issues listed were characterized as medium to high need for additional training, the market is open to additional training opportunities throughout this category.



Resource Management Issues

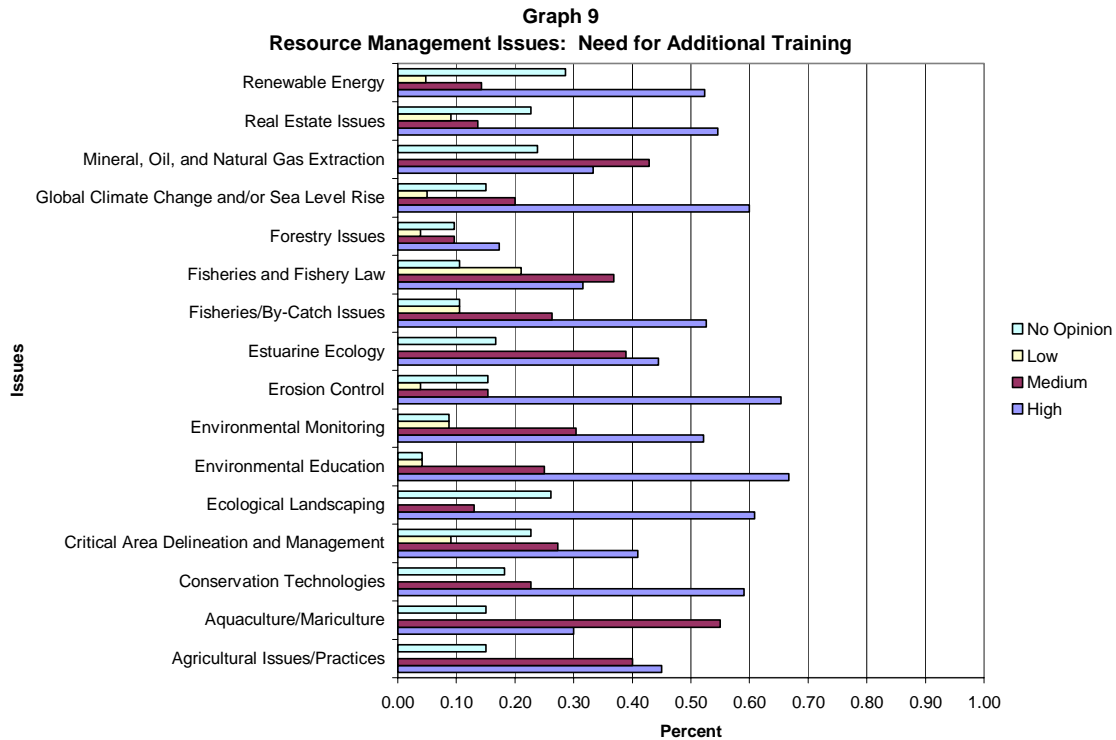
Among resource management issues, most training providers have focused on and propose to continue focusing on topics such as environmental education, environmental monitoring, estuarine ecology, erosion, aquaculture/mariculture, agriculture issues and fisheries/by-catch issues (**Table 10**). Conversely, fewer trainings have addressed issues such as mineral, oil, and natural gas extraction, renewable energy, critical area delineation and management, fisheries and fishery law, conservation technologies, forestry issues, and global climate change. More than 50% of training providers indicated that they do not offer training on the latter topics.

Table 10
Resource Management Issues

Resource Management Issues: Training Offered	No Training (%)	Offered within past 5 years (%)	To be offered in next 5 years (%)
Mineral, Oil, and Natural Gas Extraction	72	10	10
Renewable Energy	66	10	17
Critical Area Delineation and Management	62	19	22
Fisheries and Fishery Law	57	30	27
Conservation Technologies	55	26	32
Forestry Issues	55	29	29
Global Climate Change and/or Sea Level Rise	53	23	23
Real Estate Issues	50	34	28
Ecological Landscaping	48	33	30
Fisheries/By-Catch Issues	45	41	41
Agricultural Issues/Practices	45	39	35
Aquaculture/Mariculture	44	34	38
Erosion Control	38	41	38
Estuarine Ecology	34	48	45
Environmental Monitoring	32	48	35
Environmental Education	21	67	52

*Some rows surpass 100 as respondents were encouraged to choose all that applied.

The perception of need for additional trainings is highest among issues concerning environmental education, erosion control, ecological landscaping, global climate change, and conservation technologies (**Figure 9**). Ecological landscaping, global climate change, conservation technologies, real estate, and renewable energy issues appear to have the most room in the market to offer additional trainings and the greatest perceived need for additional training.



Training Methods and Resources

Survey respondents were asked to indicate the effectiveness of each training method listed in **Table 11**. The most effective training method appears to be field exercises/demonstrations; it was designated “very effective” by 80% of respondents. Sixty-six percent of respondents indicated that workshops are very effective, and 42% said that courses are very effective. The majority of respondents felt that conferences and seminars were somewhat effective, and most respondents had no opinion of roundtable discussions, panel discussions, distance learning, and on-line courses.

Table 11
Effective Training Methods

Training Methods	Effectiveness %			
	Very	Somewhat	Not Effective	No Opinion
Field Exercises/Demonstrations	80	6	0	14
Workshops	66	21	0	14
Courses	42	21	0	36
Conferences	31	44	0	25
Roundtable Discussions	31	25	3	41
Panel Discussions	19	34	9	38
Seminars/Lectures	21	58	0	21
Distance Learning	7	17	3	73
On-line Courses	7	7	7	79

In addition to training programs, the majority of survey respondents provide several other professional resources including brochures, reference materials, and website assistance. Listserves, regulatory compliance assistance, and libraries are resources that are provided less frequently. Other resources provided by the training audience but not included in **Table 12** include site visits, field trips, technical assistance, and consulting services.

Table 12
Professional Resources

Professional Resource	% of Survey Respondents Who Provide Resource
Brochures	77
Reference Materials	63
Website Assistance	51
Listserve	29
Regulatory Compliance Assistance	29
Library	20
Other	14
None	6

*Total percentage exceeds 100 because respondents were encouraged to choose all applicable professional resources.

Marketing Tools

When asked to evaluate the effectiveness of a list of marketing tools, 60% of survey respondents indicated that co-sponsorships/partnerships provide the best mechanism for advertising events (**Table 13**). E-mail lists, web sites, and newsletters are also used by a substantial number of survey respondents. Less popular marketing mechanisms include newspaper advertisements and public service announcements. Direct mailings, press releases, and phone solicitations fall out in the middle of the spectrum. Other promotional tools used by training providers that were not included in the survey document are continuing education credits and certifications.

Table 13
Marketing Tools

Marketing Tools	% of Survey Respondents Who Find Each Tool to be Effective
Co-Sponsorships/Partnerships	60
E-mail Lists	54
Web Site	46
Newsletters	43
Direct Mail	37
Press Releases	37
Phone Solicitations	29
Newspaper Ads	11
Pub. Service Ann.	11
Other	11
Not Sure	3

*Total percentage exceeds 100 because respondents were encouraged to choose all applicable professional resources.

Limiting Factors Associated with Training Programs

Survey participants were asked to identify factors that limit their abilities to offer training programs to resource managers. First, respondents identified what they considered to be the single largest cost associated with providing training programs:

- speaker/trainer costs (travel, lodging, food);
- room, board, and field expenses for field experiences;
- logistics (facilities, computers, boats, cars, technician support);
- travel, lodging, and food costs for participants;
- staff time;
- materials; and,
- overhead costs for organizing and staffing programs.

Next, respondents were asked to address the major limiting factors associated with the provision of training opportunities. The responses included:

- funding;
- lack of time;
- insufficient staff and/or dedicated instructors;
- travel;
- competition between trainers for the same audience (market share);
- adequate facilities;
- lack of creativity in training programs (to increase audience interest);
- money wasted on people who do not show up for training events; and,
- bureaucratic regulations concerning registration, cost, etc.

It is interesting to note that competition between trainers for the same audience is considered a major limiting factor since the information discussed previously concerning target audiences does not reflect intense competition for any particular target audience. Perhaps the issue is related to communication and information sharing between training providers. It is important to advertise training programs widely so that efforts are not duplicated, and there is less conflict over timelines for training events.

Mechanisms to Support Training Providers

When asked how the GNDNERR CTP could support existing training efforts, most respondents requested funding (**Table 14**). This support preference was followed by requests for technical assistance, shared facilities, trainers, and marketing assistance. Other suggestions included partnering when appropriate and cross-listing courses. Every respondent had an interest in partnering with the GNDNERR CTP to support existing training programs.

Table 14
CTP Support for Existing Training Efforts

Grand Bay NERR CTP Support For Existing Training Efforts	% of Respondents Who Favor Each Type of Support
Funding	68
Content Expertise/Technical Assistance	65
Facilities and Logistics	62
Provide Trainer	53
Marketing	53
Other	12
No Interest	0

When asked how survey respondents could support the GNDNERR CTP, the majority chose technical assistance and content expertise followed by trainers, marketing assistance, and facilities and logistics (**Table 15**). Other suggestions included partnering with the CTP to provide training opportunities, and two respondents reported that they were willing to explore options subject to workload and financial limitations. Few respondents were interested in helping fund the CTP. Three percent of respondents said they were not interested in partnering to support CTP.

Table 15
Support for CTP

Support For Grand Bay NERR CTP	% of Respondents Who Favor Providing Each Type of Support
Content Expertise/Technical Assistance	76
Provide Trainer	73
Marketing Assistance	30
Facilities and Logistics	30
Other	19
Help with Funding	14
Not Interested in Partnering	3

Audience Perceived Gaps in Existing Training Programs

Survey participants were encouraged to list their perceptions of important gaps in coastal management training along the north-central Gulf of Mexico. Responses to this open-ended question were varied. Some respondents commented on general gaps while others commented on specific gaps in training audiences and training topics. General comments included the following:

- insufficient coordination among service providers;
- lack of prioritization of training needs;
- lack of communication between people providing training;
- lack of coordination between federal and state training activities;
- need for a common focus among agencies, organizations, and academia;
- notification when events are being sponsored;

- more coordination and information sharing is needed between agencies;
- lack of outreach to audiences that are not directly involved with coastal management issues;
- audiences served (generally);
- post-training follow-up particularly by public officials; and,
- coastal decision-makers often do not have time to attend training of any kind, much less multiple sessions on topics that would benefit their efforts.

Perceived gaps in training topics included:

- coastal geology, resource development, and natural processes;
- habitat restoration techniques;
- invasive species training;
- wetlands training;
- watersheds;
- preservation of green space;
- effective ecotourism;
- erosion and sediment impacts;
- shoreline stabilization; and
- biodiversity.

Perceived gaps in audiences served included:

- public officials;
- state employees;
- real estate;
- contractors; and,
- general public.

Lack of coordination and communication between training providers surfaced as one of the most significant gaps in existing training programs. This may be an area the CTP can offset by providing a regional coordinated approach to future training activities. The idea will be discussed in greater detail in future reports.

The fact that survey participants chose to address audience gaps and training topic gaps in this question provides an opportunity for comparison between this question and a previous survey question that addressed perceptions of need for additional training. It is interesting to note that 40% of the issues listed as “perceived gaps in training topics” also emerged as “high need for additional training.” This implies that the training providers’ perceptions of training needs are accurate. Again, this reinforces the conclusion that even though many trainers are focusing on these issues, there is room in the market for additional programs.

The perceived gaps in audiences served by existing training programs include many of the same audiences that were addressed earlier in this report. The general public was also noted as an audience in need of training; however, CTP will focus its training efforts on the needs of professional coastal resource managers.

Conclusions

The goals of this analysis were to examine the existing coastal training market to: 1) identify audiences currently being targeted by existing training programs; 2) identify coastal resource issues that existing training programs are currently addressing; 3) identify and describe gaps in targeted audiences and training topics; and, 4) identify partnerships for future training opportunities. Representatives from organizations and agencies who provide diverse training opportunities to coastal resource managers were invited to participate in an on-line survey in an effort to achieve a comprehensive assessment of existing coastal resource management training opportunities along the north-central Gulf of Mexico. Additionally, Weeks Bay NERR CTP and SARPC submitted data from a previous market analysis assessment of training agencies in Mobile County; this data was reviewed for trends comparable to the results contained in this report. Analysis of the combined data indicates that there is a niche within the existing Gulf Coast resource management training community for the GNDNERR CTP to provide training opportunities to resource managers and to serve as a communication link among training partners. Furthermore, there exists an opportunity to work with Weeks Bay NERR CTP to develop programs to meet the needs of shared audiences between the two reserves.

Resource management training providers along the Gulf Coast administer training opportunities to a variety of audiences, and some concern regarding competition for audiences was expressed by survey participants. Results indicated, however, that no single audience was over-targeted by existing opportunities. In fact, some of the audiences targeted by the majority of survey participants are also perceived to be “high need for additional training.” These high need audiences include:

- state and federal legislators;
- business community members and organizations;
- city council members;
- planning/zoning boards and staff;
- county supervisors;
- city managers; and,
- realtors/real estate developers.

It was recommended by the CTP Advisory Committee that the program initially target individuals who fit into the category, “local elected and appointed officials,” which includes:

- city council members;
- city managers and staff;
- mayors and staff;
- planning/zoning boards and staff; and,
- county supervisors.

GNDNERR management has already established a working relationship with elected officials in Jackson County, Mississippi, and the CTP can use existing partnerships to foster conversations with officials in neighboring counties who are less familiar with the Reserve.

Weeks Bay NERR CTP made a similar recommendation in its report. Despite the fact that local elected officials were being targeted by trainers, there existed a perception of need for additional training opportunities addressing subjects more pertinent to their daily jobs (Sanchez, et al., 2003). There were other similar trends between the results of the two studies including parallels between audiences targeted least often by existing training programs. Subsequent reports will discuss these trends in greater detail and elaborate on future collaborative opportunities between the two reserves.

Among the five categories of coastal management issues discussed in this report (habitat issues, coastal management, water/air issues, planning and regulation, and resource management), those that have been covered most frequently by existing training programs include:

- wetland protection and management;
- environmental education;
- native plants;
- nonpoint source pollution
- watershed management and planning; and,
- GIS.

Those issues that are perceived to be “highest need for additional training” (“highest need” = designated “high need for additional training” by 70% or more of the survey population) include:

- nonpoint source pollution;
- watershed management and planning;
- habitat restoration;
- conservation land planning;
- wetland protection;
- sustainable building and development;
- coastal zone management; and,
- invasive species.

Among the topics perceived to be “highest need for additional training,” those that will be addressed by the smallest percentage of trainers (based on the training projections over the next five years) include:

- coastal zone management;
- conservation planning; and,
- sustainable development.

It is important to note that the majority of resource management issues addressed in the market analysis survey were considered to be “high need for additional training” by more than 50% of respondents. This indicates that there is room in every category for additional training opportunities, and the GNDNERR CTP should not be limited to the issues listed above. These results, however, are based on the perceptions of existing trainers. The needs assessment survey and report, which is the next step in the CTP planning process, will provide an opportunity to further investigate the target audience (local elected officials and their staff) to assess its immediate needs.

Survey participants demonstrated a willingness to partner with the GNDNERR CTP to provide future training opportunities to coastal resource managers. They also demonstrated a need for additional training programs, not only to cover gaps in training issues and target audiences, but also to improve communication and coordination between existing training organizations.

In conclusion, the findings contained in this report verify the existence of a successful, diverse coastal management training market along the north-central Gulf Coast. The key implication of this analysis, however, is that there is not only room within the existing market to provide a variety of additional trainings to a number of audiences but also a regional need for coordination among training organizations which the GNDNERR CTP can strive to fulfill. To date, the GNDNERR has been actively involved in the Coastal Decision-Maker Workshop Program, through which a number of resource management workshops have been designed and implemented ranging in subject matter from wetland plant identification courses to tidal surveying workshops. It is the intent of the GNDNERR CTP to use the information contained in this report to develop a more coordinated and comprehensive approach to training regional coastal decision-makers in an attempt to fill gaps without duplicating existing efforts. The next step in the CTP planning process will be to conduct a needs assessment survey of the target audience, “local elected officials and their staff.” The results of the survey will provide an opportunity to further assess the accuracy of the perceptions of coastal resource management training providers and identify the specific training needs of the initial target audience for the GNDNERR CTP.

Works Cited

CTP Technical Committee. *Coastal Training Program Planning Phase CTP Technical Committee Review*. January, 2004.

Sanchez, Tina, et al. *Weeks Bay National Estuarine Research Reserve Coastal Training Program Market Analysis*. Mobile: South Alabama Regional Planning Commission, 2003.

Appendix A

CTP Advisory Committee Members

CTP Advisory Committee Members

L. G. Adams – Weeks Bay NERR, Manager
Diane Altsman – EPA, Environmental Protection Specialist
Nicole Anderson – The Nature Conservancy, Program Coordinator
Laura Beiser – Mississippi Department of Environmental Quality, Water Education Specialist
Shelia Brown – USM Scott Aquarium, COSEE Scientist
Rick Christmas – Mississippi Gulf Coast Community College, Vice President
Jan Boyd – Mississippi Department of Marine Resources, Coastal Ecology
Margaret Bretz – Mississippi Secretary of State’s Office, Attorney
Jennifer Buchanan – Grand Bay NERR, Education Coordinator
Dale Diaz – Mississippi Department of Marine Resources, Staff Officer, Marine Fisheries
Marian Dicas – Grand Bay NERR, Coastal Training Program Coordinator
Marcia Garcia – Mississippi Department of Marine Resources, Comprehensive Resource Management Plan, Staff Officer
Terri Jacobson – USFWS
Mark LaSalle – Mississippi State University, Faculty
Chris May – Grand Bay NERR, Stewardship Coordinator
Cheryl McClary – Weeks Bay NERR, Coastal Training Program Coordinator
Karen Mitchell – NOAA NMFS, Research Fishery Biologist
Ben Posadas – Mississippi State University, Faculty
David Ruple – Grand Bay NERR, Manager
Tina Schumate - Mississippi Department of Marine Resources, Comprehensive Resource Management Plan, Manager
LaDonn Swann – Mississippi-Alabama Sea Grant Consortium, Director
Mark Woodrey – Grand Bay NERR/Mississippi State University, Research Coordinator

Appendix B

Market Analysis Survey Questions

Appendix B

Survey Introduction (Please Read Before Completing Survey)

This survey will be used to help design the Grand Bay National Estuarine Research Reserve (GRBNERR) Coastal Training Program (CTP).

The goal of the CTP is to provide a coordinated approach to coastal and environmental resource management training and education. It will target individuals whose daily decisions, whether in a professional or volunteer capacity, impact upper and coastal watershed resources. The objective of the program is to assist these individuals, also known as Coastal Decision-Makers, in making informed and confident decisions about coastal and watershed issues.

The CTP offers an opportunity to establish training partnerships between agencies/organizations, local governments, and educational institutions. It is a federally-funded program through NOAA's National Estuarine Reserves Division and is implemented in the State of Mississippi by the Grand Bay National Estuarine Research Reserve in conjunction with the Mississippi Department of Marine Resources.

Your participation in this survey will help us design the CTP in a way that fills gaps in training, avoids duplication of efforts, and capitalizes on partnership opportunities. Individual responses collected through the survey process will remain confidential. Thank you in advance for your assistance and thoughtful responses.

Definition of Terms:

Coastal Decision-Makers – Individuals who make routine decisions about the management of coastal resources in a professional or volunteer capacity. This group includes (but is not limited to) elected officials, land use planners, regulatory personnel, coastal managers, agricultural and fisheries interests, volunteer board members, contractors, consultants, casino developers, non-profit agencies, and others.

Resource Management Training – A learning experience designed for coastal decision-makers and intended to enable them to make better informed decisions concerning the health of coastal resources. Events solely for recreational purposes are excluded. The target audience must be coastal decision-makers and training must meet at least two of the following criteria:

- 1) Increase knowledge or skills;
- 2) Enable interaction with an expert; and,
- 3) Enable a participant to tap into a network of professionals.

Coastal Training Program Market Analysis Survey

1. Individual Information

Name _____
Agency/Organization _____
Department _____
Program/Field office (if applicable) _____
Position _____
Address _____
City, State _____
Phone Number _____
Fax Number _____
E-mail Address _____

2. I am responding to this survey:

- a. On behalf of my entire agency/organization
- b. On behalf of a department within a larger agency
- c. On behalf of a specific program/field office, also within a larger agency
- d. Representing only myself and my specific duties within this organization.

3. How long have you been with this agency/organization?

- a. 0-3 years
- b. 3-5 years
- c. 5-10 years
- d. 10+ years

4. Briefly, what is the primary mission of your organization or the web address at which it can be found?

5. Which region(s) does your office serve? (CHOOSE ALL THAT APPLY).

- a. U.S.
- b. Southeast
- c. Gulf Coast
- d. State of Louisiana
- e. State of Mississippi
- f. Jackson County, MS
- g. Harrison County, MS
- h. Hancock County, MS
- i. Other (please specify)

6. Does your organization provide, even peripherally, any educational materials, information, outreach, training, or some other educational product/service related to the coastal environment? (Choose all that apply)
- Yes, we provide training and/or partner with others to provide training.
 - Yes, we provide outreach (webpage, newsletter, brochures, etc.)
 - Yes, we provide science-based information.
 - No, we do not provide training or educational materials.
7. Relative to your organization's mission, how important is providing coastal training to professional audiences? **(IF YOU DO NOT PROVIDE COASTAL TRAINING, PLEASE GO TO QUESTION 23).**
- Very important
 - Somewhat important
 - Peripheral
 - Not Provided
8. How many coastal management training opportunities has your agency/organization provided over the past five years, either by itself (directly) or jointly with other agencies?
- ____ Number of training opportunities offered directly
 - ____ Number of training opportunities conducted jointly through partnerships with other agencies/organizations.
9. Where were the trainings delivered? (List towns, cities).
-
-
10. To whom do you offer coastal management training? (Choose all that apply)
- Professionals who work in coastal resource management
 - Professionals who do not work in coastal resource management
 - General Public
 - All of the above
 - Other (Please specify)_____

11. Please tell us whether you think there is a high, medium or low need for additional training and education about the coastal environment within EACH of the listed audiences. Additionally, tell us which audiences your organization has offered coastal/natural resource management training opportunities to (CHOOSE ALL THAT APPLY).

	High	Medium	Low	Not sure/No opinion	Audiences targeted by your organization
Academic community members, including academic extension programs					
Agricultural sector (e.g., farmers, agricultural organizations)					
Analytical labs, including soil and water technicians					
City council members					
Business community members and/or organizations					
Citizen-based watershed councils					
City managers					
Conservation commissions and/or staff (e.g., Commission on Marine Resources)					
Consultants					
Contractors					
County supervisors					
Ecology tour operators and/or coastal recreation businesses					
Enforcement/regulatory personnel (including law enforcement, permits)					
Engineers, technicians					
Environmental consultants (private)					
Federal government employees					
Fishing organizations or individuals (commercial)					
Fishing organizations or individuals (recreational)					
Harbormasters and harbor commission members					
Health and safety department or boards					
Health department employees					
Industry, including marine industry					
Land use planners					
Landscape design and/or nurseries					
Legislators					

	High	Medium	Low	Not sure/No opinion	Audiences targeted by your organization
Local, state, and/or federal land managers					
Media professionals					
Neighborhood/homeowner associations					
Non-profit organization staff and/or board members					
Planning/zoning boards and/or staff					
Professional surveyors					
Realtors and/or real estate developers/architects					
Scientists					
Sewage treatment/waste water management employees					
State and/or federal legislators					
Volunteers on decision-making boards					
Water resource agencies					

12. Please list any other groups you have trained in the last 5 years and whether you feel there is a high, medium, or low need for additional training.

13. Please indicate which of the following issues have been included in resource management training opportunities offered to adult audiences by your organization within the past five years. Additionally, please tell us whether you intend to offer training in these areas again within the next five years and whether you foresee a need for additional training.

	Training offered within the past 5 years		Training to be offered within the next 5 years		Need for additional training		
	Yes	No	Yes	No	High	Medium	Low
<u>Habitat Issues</u>							
Biodiversity							
Endangered or threatened species							
Fire management							
Habitat buffers							
Habitat restoration							
Invasive species							
Native plants							
Protected/special area management							
Streambank restoration							
Wetland protection/management							
Wildlife corridors							
<u>Coastal Management</u>							
Beach and nearshore ecology							
Coastal Public Access							
Coastal and estuarine processes							
Coastal hazards							
Coastal erosion and accretion							
Coastal zone management							
Coastal public access							
Dredging and filling							
Fisheries management							
Marina management							
Offshore marine ecology							
Port and harbor planning and/or management							
Recreational use							
Saltwater intrusion							
Shoreline upland ecology							
<u>Water/Air Issues</u>							
Air Emissions							
Combined sewer outflows							
Eutrophication and nutrient loading							
Ground water issues							
Interstate Air Quality Issues							
Nitrogen loading							
Non-point source pollution							

	Training offered within the past 5 years		Training to be offered within the next 5 years		Need for additional training		
	Yes	No	Yes	No	High	Medium	Low
<u>Water/Air Issues Cont'd</u>							
Point source pollution							
Pollution prevention							
Sedimentation							
Septic system issues							
Thermal pollution							
Waste water management							
Water resources (supply and quality)							
Watershed management/planning							
<u>Planning and Regulation Issues</u>							
Conservation land planning							
Environmental health							
Environmental legislation							
General land planning							
GIS							
Interagency coordination							
Regulatory compliance							
Sustainable building, development, and/or industries							
<u>Resource Management Issues</u>							
Agricultural issues/practices							
Aquaculture/mariculture							
Conservation technologies							
Critical area delineation and management							
Ecological landscaping							
Environmental education							
Environmental monitoring							
Erosion control							
Estuarine ecology							
Fisheries/by-catch issues							
Fisheries and fishery law							
Forestry issues							
Global climate change and/or sea level rise							
Mineral, oil, and natural gas extraction							
Real estate issues							
Renewable energy							

14. Please list additional training topics you have offered in the last 5 years or intend to offer in the next 5 years.

15. Who do you use to deliver training? (Choose all that apply)

- a. Organization staff
- b. Consultant
- c. Academic
- d. Volunteer(s)
- e. Other (please specify)

16. Do you offer any other professional resources, besides training, to people working on coastal resource issues? (Choose all that apply)

- a. Assistance with regulatory compliance
- b. Brochures
- c. Library
- d. Organizational list serves
- e. Reference materials
- f. Website assistance or information
- g. I do not offer professional resources.
- h. Other (please specify)

17. Of the following tools, which ones do you find most effective for marketing your training programs? (Choose all that apply)

- a. Direct mail
- b. Web site
- c. Phone solicitations
- d. E-mail lists
- e. Public service announcements
- f. Co-sponsorships/partnerships
- g. Press releases
- h. Organizational newsletters
- i. Advertising in newspapers
- j. Other (please specify)
- k. Not sure

18. Please indicate how effective each training method is as well as the average number of participants at each type of event. If you do not use the method, please mark "No opinion."

	Very effective	Somewhat effective	Not effective	No opinion	Average # of participants
Conferences					
Courses					
Distance learning					
Field exercises/demonstrations					
Online courses					
Panel discussions					
Roundtable discussions					
Seminars/lectures					
Workshops					

19. Please list other training methods you utilize and rate the effectiveness of each method.

20. What is the single largest cost associated with providing training programs?

21. What do you consider to be the major limiting factor associated with providing more training opportunities?

22. How can the GRBNERR Coastal Training Program support your training efforts?

(Choose all that apply)

- a. Marketing assistance
- b. Facilities and logistics
- c. Help with funding
- d. Provide content expertise or technical assistance
- e. Provide presenter/trainer
- f. Not interested in partnering
- g. Other (please specify)

23. How can you support the GRBNERR Coastal Training Program? (Choose all that apply).

- a. Marketing assistance
- b. Facilities and logistics
- c. Help with funding
- d. Provide content expertise or technical assistance
- e. Provide presenter/trainer
- f. Not interested in partnering
- g. Other (please specify)

24. What do you perceive as the important gaps in coastal management training along the north-central Gulf of Mexico? Please consider unmet needs in training topics, audiences served, locations, timing of training, lack of frequency, and any other gaps.
25. In your opinion, who are the top coastal resource management training providers in your region?
26. Is there anyone else within your organization we should contact? (Please list name, agency/organization, position, phone, and e-mail address).

**Thank you for participating in this survey!! If you have any additional comments regarding any of these questions or the Coastal Training Program, itself, please let me know.

Best Regards,

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Appendix C

Tables

Table 1
Agencies Represented

Agency/Program	Affiliation	Region Served
Air National Guard	Federal	U.S.
Alabama Coastal Foundation ^a	Non-profit	Mobile and Baldwin Co., AL
Alabama Department of Environmental Management ^a	State	Alabama
Auburn University Marine Extension and Research Center ^a	Academic	Mobile and Baldwin Co., AL
Dauphin Island Sea Lab ^a	Academic	Gulf Coast; AL; Mobile and Baldwin Co., AL
Environmental Protection Agency <ul style="list-style-type: none"> • Barataria Terrabonne National Estuary Program • Gulf of Mexico Program • ^aMobile Bay National Estuary Program • Region 4, Atlanta 	Federal	U.S., Gulf Coast, LA Gulf Coast Mobile and Baldwin Co., AL Southeast, Gulf Coast, MS
Grassroots, Inc. ^a	Non-profit	Mobile and Baldwin Co., AL
Gulf Restoration Network	Non-profit	Gulf Coast, MS, LA
Gulf States Marine Fisheries Commission	Non-profit	Southeast, Gulf Coast
Keesler Air Force Base	Federal	Keesler
Land Trust for the Mississippi Coastal Plain	Non-profit	Gulf Coast, 6 MS coastal counties
Louisiana State University <ul style="list-style-type: none"> • Coastal Restoration and Enhancement Through Science and Technology 	Academic	LA, MS
Louisiana Universities Marine Consortium	Academic	Gulf Coast, LA
Mississippi-Alabama Sea Grant Consortium	Academic	MS, AL
Mississippi Department of Agriculture and Commerce	State	MS
Mississippi Department of Environmental Quality <ul style="list-style-type: none"> • Geology • Nonpoint Source Program • Coastal Streams and Basins 	State	MS MS MS
Mississippi Department of Marine Resources <ul style="list-style-type: none"> • Grand Bay National Estuarine Research Reserve • Comprehensive Resource Management Plan • Coastal Preserves • Marine Fisheries 	State	Gulf Coast, MS 6 southern co., MS 3 coastal co., MS 3 coastal co., MS; and Gulf Coast
Mississippi Department of Transportation	State	MS
Mississippi Gulf Coast Community College	State	Gulf Coast
Mississippi Secretary of State's Office	State	Gulf Coast
Mississippi State University <ul style="list-style-type: none"> • Coastal Research and Extension Center (CREC) <ul style="list-style-type: none"> -Horticulture -Entymology -Economics -Coastal Environment -Grand Bay NERR 	Academic	Gulf Coast

^a Information regarding these agencies/organizations was provided by SARPC and was not used to calculate statistics for this report.

^b Two responses were received from within the same program.

**Table 1 (cont'd)
Agencies Represented**

Agency/Program	Affiliation	Region Served
^a Mobile County Soil and Water Conservation District	Non-profit	Mobile Co., AL
Natural Resources Conservation Service <ul style="list-style-type: none"> • Soil and Water Conservation Commission 	Federal	MS
The Nature Conservancy ^b	Non-profit	SE, Gulf Coast, MS, LA, AL
NOAA National Marine Fisheries Service (NMFS)	Federal	Southeast, Gulf Coast
Sierra Club (Mississippi Chapter)	Non-profit	MS
University of Southern Mississippi <ul style="list-style-type: none"> • Gulf Coast Research Laboratory • J. L. Scott Marine Education Center^b 	Academic	U.S., Gulf Coast, MS U.S., Gulf Coast, MS, LA, international guests
U.S. Army Corps of Engineers <ul style="list-style-type: none"> • Vicksburg Engineer Research and Development Center • Professional Development Center, Huntsville 	Federal	U.S. U.S. and World
U.S. Coast Guard Marine Safety Office, Mobile	Federal	Gulf Coast
U.S. Fish and Wildlife <ul style="list-style-type: none"> • Ecological Services Office, Lafayette • Gulf Coast Fisheries Coordination Office • Regional Coastal Program • Sandhill Crane Refuge 	Federal	LA Gulf Coast Southeast MS, AL, TN, KY, AR, LA
USGS National Wetlands Research Center	Federal	U.S. Southeast, Gulf Coast, LA
Weeks Bay National Estuarine Research Reserve	State	Southeast/coastal Alabama

^a Information regarding these agencies/organizations was provided by SARPC and was not used to calculate statistics for this report.

^b Two responses were received from within the same program.

Table 2
Provision of Training and Outreach Among Survey Respondents

Agency/Program	Provides Training or Partners with Others to Provide Training	Provides Outreach Materials	Provides Science-Based Information
Air National Guard	Yes	Yes	Yes
^a Alabama Coastal Foundation	Yes	---	---
^a Alabama Department of Environmental Management	Yes	Yes	Yes
^a Auburn University Marine Extension and Research Center	Yes	Yes	Yes
^a Dauphin Island Sea Lab	Yes	Yes	Yes
Environmental Protection Agency			
• Barataria Terrabonne National Estuary Program	Yes	Yes	Yes
• Gulf of Mexico Program	---	Yes	---
• ^a Mobile Bay National Estuary Program	Yes	Yes	Yes
• Region 4, Atlanta	Yes	---	---
^a Grassroots, Inc.	Yes	Yes	---
Gulf Restoration Network	Yes	Yes	---
Gulf States Marine Fisheries Commission	---	Yes	---
Keesler Air Force Base	---	---	---
Land Trust for the Mississippi Coastal Plain	Yes	Yes	
Louisiana State University			
• Coastal Restoration and Enhancement Through Science and Technology	---	Yes	Yes
Louisiana Universities Marine Consortium	Yes	Yes	Yes
Mississippi-Alabama Sea Grant Consortium	Yes	Yes	Yes
Mississippi Department of Agriculture and Commerce	---	Yes	---
Mississippi Department of Environmental Quality			
• Geology	Yes	Yes	Yes
• Nonpoint Source Program	Yes	Yes	Yes
• Coastal Streams and Basins	Yes	Yes	Yes
Mississippi Department of Marine Resources			
• Grand Bay National Estuarine Research Reserve	Yes	Yes	Yes
• Comprehensive Resource Management Plan	Yes	Yes	Yes
• Coastal Preserves	Yes	Yes	Yes
• Marine Fisheries	Yes	Yes	Yes
Mississippi Department of Transportation	Yes	Yes	Yes
Mississippi Gulf Coast Community College	Yes	---	---
Mississippi Secretary of State's Office	Yes	Yes	---
Mississippi State University			
• Coastal Research and Extension Center (CREC)			
-Horticulture	Yes	Yes	Yes
-Entymology	Yes	Yes	Yes
-Economics	Yes	Yes	Yes
-Coastal Environment	Yes	Yes	Yes
-Grand Bay NERR	Yes	Yes	Yes

^a Information regarding these agencies/organizations was provided by SARPC and was not used to calculate statistics for this report.

^b Two responses were received from within the same program.

Table 2 (cont'd)

Agency/Program	Provides Training or Partners with Others to Provide Training	Provides Outreach Materials	Provides Science-Based Information
^a Mobile County Soil and Water Conservation District	Yes	---	---
Natural Resources Conservation Service			
• MS Soil and Water Conservation Commission	Yes	Yes	Yes
^b The Nature Conservancy	Yes	Yes	Yes
NOAA National Marine Fisheries Service (NMFS)	Yes	Yes	Yes
^a NRCS Mobile County			
Sierra Club (Mississippi Chapter)	Yes	Yes	Yes
University of Southern Mississippi			
• Gulf Coast Research Laboratory	Yes	Yes	Yes
• ^b J. L. Scott Marine Education Center	Yes	Yes	Yes
U.S. Army Corps of Engineers			
• Vicksburg Engineer Research and Development Center	Yes	---	Yes
• Professional Development Center, Huntsville	Yes	---	---
U.S. Coast Guard Marine Safety Office, Mobile	Yes	---	---
U.S. Fish and Wildlife			
• Ecological Services Office, Lafayette	Yes	Yes	Yes
• Gulf Coast Fisheries Coordination Office	---	Yes	Yes
• Regional Coastal Program	Yes	---	---
• Sandhill Crane Refuge	Yes	---	---
USGS National Wetlands Research Center	Yes	---	---
Weeks Bay National Estuarine Research Reserve	Yes	Yes	Yes

^a Information regarding these agencies/organizations was provided by SARPC and was not used to calculate statistics for this report.

^b Two responses were received from within the same program.

Table 3
Agency Mission Statements

Agency/Program	Mission Statement	Importance of Training Relevant to Mission
Air National Guard	To provide an integrated, year round, realistic training environment for units to enhance their capability and combat readiness.	Very Important
Alabama Coastal Foundation ^a	To improve and protect the quality of Alabama's coastal resources by providing factual information, promoting dialog, and advocating action.	Somewhat Important
Alabama Department of Environmental Management ^a	To provide environmental education to all stakeholders.	Very Important
Auburn University Marine Extension and Research Center ^a	Problem-oriented research of interest to Alabama coastal residents and to provide science-based information to the community.	Very Important
Dauphin Island Sea Lab ^a	To explain the findings of hard science and technical knowledge to the public; to influence policy decisions; and to support information needs of decision makers.	Very Important
Environmental Protection Agency <ul style="list-style-type: none"> • Barataria Terrabonne National Estuary Program • Gulf of Mexico Program • Mobile Bay National Estuary Program^a • Region 4, Atlanta 	<p>To implement a holistic management plan for the 4.2 million acre watershed that lies between the Mississippi and Atchafalaya Rivers.</p> <p>To facilitate collaborative actions to protect, maintain, and restore the health and productivity of the Gulf of Mexico in ways consistent with the economic well-being of the Region.</p> <p>To promote wise stewardship of the water quality and living resources of the Mobile Bay/Tensaw Delta.</p> <p>Environmental protection through implementation of Congressionally mandated legislation and appropriations.</p>	<p>Very Important</p> <p>No Training Provided</p> <p>Somewhat Important</p> <p>Very Important</p>
Grassroots, Inc. ^a	To educate realtors, developers, and elected officials on land use issues.	Very Important
Gulf Restoration Network	To unite and empower people to protect and restore the resources of the Gulf Region for future generations.	Very Important
Gulf States Marine Fisheries Commission	The conservation, development, and full utilization of the fishery resources of the Gulf of Mexico, to provide food, employment, income, and recreation to the people of these United States.	Not Provided
Keesler Air Force Base	To maintain and protect the environment and human health on Keesler AFB.	Not Provided

^a Information regarding these agencies/organizations was provided by SARPC and was not used to calculate statistics for this report.

^b Two responses were received from within the same program.

Table 3 (cont'd)
Agency Mission Statements

Agency/Program	Mission Statement	Importance of Training Relevant to Mission
Land Trust for the Mississippi Coastal Plain	To conserve, promote, and protect the open spaces and green places of ecological, cultural, or scenic significance in the counties of the MS Coastal Plain.	Somewhat Important
Louisiana State University <ul style="list-style-type: none"> • Coastal Restoration and Enhancement Through Science and Technology 	To improve the science of coastal habitat restoration.	No Training Provided
Louisiana Universities Marine Consortium	To facilitate and enhance marine research and education in LA and to provide facilities for others who are likewise engaged.	Peripheral
Mississippi-Alabama Sea Grant Consortium	The MASGC is dedicated to activities that foster the conservation and sustainable development of coastal and marine resources in Mississippi and Alabama.	Very Important
Mississippi Department of Agriculture and Commerce	To regulate the movement of infectious plant diseases, insects, pathogens, and noxious weeds. To regulate the sale, distribution and use of pesticides, feed, lime, and fertilizers to varying degrees.	No Training Provided
Mississippi Department of Environmental Quality <ul style="list-style-type: none"> • Coastal Geology • Nonpoint Source Program • Coastal Streams and Basins 	<p>To help maintain the balance between development, safety, and environmental protection to insure that the high standard of living is sustained for the long-term.</p> <p>To conserve and improve State waters, for man's use and the sustainment and propagation of wildlife and aquatic life, through focused research, responsible regulation, widespread education, and cooperation with other agencies and the public.</p> <p>To safeguard the health, safety, and welfare of present and future generations by conserving and improving our environment.</p>	<p>Somewhat Important</p> <p>Very Important/ Somewhat Important</p> <p>Very Important</p>
Mississippi Department of Marine Resources <ul style="list-style-type: none"> • Grand Bay National Estuarine Research Reserve • Comprehensive Resource Management Plan • Coastal Preserves 	<p>To promote the stewardship of the nation's estuaries through science and education using a system of protected areas.</p> <p>To build the capacity of state and local governments to manage and protect habitats in MS by coordinating agency efforts, developing partnerships, and integrating wetland protection and management into the lifestyle of the coastal community.</p> <p>To effectively preserve, conserve, restore, and manage Mississippi's coastal ecosystems to perpetuate their natural characteristics, features, ecological integrity, social, economic, and aesthetic values.</p>	<p>Very Important</p> <p>Very Important</p> <p>Somewhat Important</p>

^a Information regarding these agencies/organizations was provided by SARPC and was not used to calculate statistics for this report.

^b Two responses were received from within the same program.

**Table 3 (cont'd)
Agency Mission Statements**

Agency/Program	Mission Statement	Importance of Training Relevant to Mission
Mississippi Department of Marine Resources (cont'd) <ul style="list-style-type: none"> • Marine Fisheries 	To enhance, protect and conserve marine interests of the state.	Very Important
Mississippi Department of Transportation	To provide a safe intermodal transportation network that is planned, designed, constructed, and maintained in an effective, cost efficient and environmentally sensitive manner.	Very Important
Mississippi Gulf Coast Community College	We welcome the responsibility to respond to the educational needs of our community by providing an outstanding learning environment supported by excellent products and services. We achieve this by creating an atmosphere that fosters responsible citizenship and leadership in a dynamic community.	Somewhat Important
Mississippi Secretary of State's Office	To implement the public policy of the state to favor the preservation of the natural state of the public trust tidelands and their ecosystems and to prevent the despoliation and destruction of them, except where a specific alteration would serve a higher public interest in compliance with the public purposes of the public trust in which such tidelands are held.	Peripheral
Mississippi State University Coastal Research and Extension Center <ul style="list-style-type: none"> • Horticulture • Entymology • Economics • Coastal Environment • Grand Bay NERR 	To conduct research and educational programs aimed at fostering a better understanding and use of renewable and non-renewable resources in South Mississippi.	Somewhat Important Very Important Very Important Very Important
Mobile County Soil and Water Conservation District ^a	To administer state cost-share program and to promote soil and water conservation	No Response
Natural Resources Conservation Service <ul style="list-style-type: none"> • Soil and Water Conservation Commission 	To effectively guide and promote the conservation, development, protection, and proper utilization of the soil, water, and related resources of the state.	Very Important
The Nature Conservancy ^b	To preserve plants, animals, and natural communities that represent the diversity of life on earth by protecting the lands and water they need to survive.	Somewhat Important/ Very Important

^a Information regarding these agencies/organizations was provided by SARPC and was not used to calculate statistics for this report.

^b Two responses were received from within the same program.

**Table 3 (cont'd)
Agency Mission Statements**

Agency/Program	Mission Statement	Importance of Training Relevant to Mission
NOAA National Marine Fisheries Service (NMFS)		Very Important
Sierra Club (Mississippi Chapter)	To protect, preserve, and enjoy the environment	Somewhat Important
University of Southern Mississippi <ul style="list-style-type: none"> <li data-bbox="131 520 526 552">• Gulf Coast Research Laboratory <li data-bbox="131 701 574 732">• J. L. Scott Marine Education Center^b 	Dedicated to working toward a future of sustainable marine and coastal resources through scientific discovery, development of new technology, and education of future scientists and citizens. To educate and distribute information associated with marine, environmental, and oceanographic disciplines.	Somewhat Important Very Important
NOAA National Marine Fisheries Service (NMFS)	Dedicated to the stewardship of living marine resources through science-based conservation and management, and the promotion of healthy ecosystems.	Very Important
U.S. Army Corps of Engineers <ul style="list-style-type: none"> <li data-bbox="131 951 545 1014">• Vicksburg Engineer Research and Development Center <li data-bbox="131 1045 664 1077">• Professional Development Center, Huntsville 	To minimize adverse effects of engineering activities on the environment. To provide effective training courses to the USACE to help the Corps better meet its strategic goals and mission by making its employees more effective at what they do in their job.	Very Important Very Important
U.S. Coast Guard Marine Safety Office, Mobile	To protect the marine environment and provide port security.	Somewhat Important
U.S. Fish and Wildlife <ul style="list-style-type: none"> <li data-bbox="131 1293 578 1325">• Ecological Services Office, Lafayette <li data-bbox="131 1482 621 1514">• Gulf Coast Fisheries Coordination Office <li data-bbox="131 1629 461 1661">• Regional Coastal Program <li data-bbox="131 1755 423 1787">• Sandhill Crane Refuge 	The U.S. Fish and Wildlife Service's mission is, working with others, to conserve, protect and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people. To manage and conserve interjurisdictional fisheries and other aquatic resources, including their habitats, in Gulf of Mexico coastal waters and watersheds. To protect and conserve fish and wildlife resources for the benefit of the American people. To provide habitat management to benefit the endangered MS Sandhill Crane.	Peripheral Peripheral Somewhat Important Somewhat Important

^a Information regarding these agencies/organizations was provided by SARPC and was not used to calculate statistics for this report.

^b Two responses were received from within the same program.

Table 3 (cont'd)
Agency Mission Statements

Agency/Program	Mission Statement	Importance of Training Relevant to Mission
USGS National Wetlands Research Center	To promote and serve the National Map and the supporting and related geospatial/mapping sciences.	Very Important
Weeks Bay National Estuarine Research Reserve	To provide leadership and promote informed management of estuarine and coastal habitats through scientific understanding and to encourage good stewardship practices through partnerships, public education, and outreach programs.	Very Important

^a Information regarding these agencies/organizations was provided by SARPC and was not used to calculate statistics for this report.

^b Two responses were received from within the same program.