



**NOAA Coastal Services Center
and NOAA National Estuarine
Research Reserve System
Coastal Training Program**

**Joint External Review
of Training Activities:
Findings and Improvement Options**

**March 2009
Final Report**

Prepared by:
Global Evaluations & Applied
Research Solutions (GEARS) Inc.
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Under a cooperative agreement between
the National Oceanic and Atmospheric
Administration and the National Estuarine
Research Reserve Association (NERRA)
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NOAA Coastal Services Center
LINKING PEOPLE, INFORMATION, AND TECHNOLOGY



National Oceanic and Atmospheric Administration

*Coastal Services Center Training Program and
National Estuarine Research Reserve System
Coastal Training Program*

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**From the Chair of the Joint External Review Team,
NOAA Coastal Services Center Training Program and
NOAA National Estuarine Research Reserve System Coastal Training**

March 11, 2009

Jaime Kooser, Ph.D., President
Matt Menashes, Executive Director
National Estuarine Research Reserve Association
444 N. Capitol St., N.W., Suite 322
Washington, DC 20001

Dear Dr. Kooser and Mr. Menashes:

On behalf of the Joint External Review Team for the NOAA Coastal Services Center (CSC) Training Program and the NOAA National Estuarine Research Reserve System Coastal Training Program (CTP), I hereby transmit our final report that outlines our findings and improvement options for the respective training programs. We transmit this document to NOAA through the National Estuarine Research Reserve Association in keeping with your existing cooperative agreement.

The Review Team commends both the CSC and CTP for their significant efforts and commitment in support of coastal decision makers. We look forward to each program's continued success in strengthening this community and the stewardship of our natural resources.

Should you or others have questions regarding the content of this report, I, and other members of the Review Team, will be more than willing to answer them. It has been our great pleasure to support NOAA in this endeavor. We wish both programs our best as they move forward.

Sincerely,



Deborah Sliter
Chair, Joint Review Team

cc: Laurie McGilvray, Chief, Estuarine Reserves Division, Ocean and
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Ginger Hinchcliff, Chief, Coastal Management Services Division,
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Acknowledgments

This report was prepared under a cooperative agreement between the National Oceanic and Atmospheric Administration (NOAA) and the National Estuarine Research Reserve Association (NERRA).

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Special thanks to Tina O'Connell, Knauss Sea Grant Fellow, Estuarine Reserves Division, OCRM, who for a year coordinated the CSC/CTP evaluation research, documentation, and logistics for the External Review Team with great patience and dedication. In addition, we thank Diane Roberts and Bridget Hardaway from GEARS who deftly guided the review process and facilitated the presentations and discussions with CSC and CTP staff, partners, and stakeholders.

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Executive Summary

NOAA's National Ocean Service (NOS) addresses the training needs of decision makers and coastal resource professionals in the coastal zone through the Coastal Services Center (CSC) and The National Estuarine Research Reserve System Coastal Training Program (CTP). Both CSC and CTP provide science-based information and skill-building opportunities to professionals and decision makers who manage coastal resources, while building organizational capacity to protect those resources. The CSC achieves this on a national level and CTP on a local level. These two programs form a partnership that is complementary and mutually supportive.

A team of seven experts was convened in 2008 to conduct an external program review and to formulate options for improvement on: (1) overall program structure, function, delivery, and promotion; (2) evaluation and performance measures; and (3) internal and external partnerships. Team members were selected because of expertise in their field(s) as well as training, education and outreach, evaluation, and management experience. They invested considerable time and effort reviewing background materials and performance measures, listening to presentations, and interviewing staff and program participants.

The Review Team was charged with providing constructive feedback and the options for improvement outlined in this report are largely directed at the need to maximize existing resources and increase efficiency. At the same time, the Review Team found that both programs shared many strengths and successes including:

- employing skilled staff who are dedicated, motivated, resourceful, and have built reputable programs;
- providing high-quality services;
- effectively reaching their target audience(s);
- providing quality education and training products;
- using comprehensive program evaluation methods; and
- sharing a strong working relationship which is the foundation of the successful CSC/CTP partnership.

Summary Findings – Coastal Services Center

The CSC training program offers a variety of topics that effectively link the coastal resource management community with technology and social science-based expertise. The CSC plays a critical role in providing current technology and information as well as relevant management strategies to coastal managers.

During the external review, the Review Team was provided an opportunity to interview CSC's training program participants to discuss benefits they may have received. This information, along with the briefing materials and presentations from CSC staff, allowed the Review Team to analyze many strengths of the program.

Strengths –

- One of the main strengths of the CSC training program is its staff. Training staff at the CSC provide a very valuable product that enhances capacities of coastal managers at various levels.

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- Feedback from recipients of CSC services was extremely complimentary, including a sincere appreciation of the staff for providing skills and capacity-building expertise in areas ranging from GIS applications to logic model development to project design and evaluation.
- The CSC is effective in meeting its core value of producing high-quality products and services that positively influence decision makers.
- The CSC has effectively implemented the use of logic models to identify key performance indicators for measuring outcomes.
- The CSC has a good relationship with the CTP, coordinates training of CTP staff, and offers expertise to local decision makers through CTP-organized events.

Challenges and Improvement Options -

- The CSC has been unable to fully respond to audience needs because of lack of staff, funding, and most importantly, time. To address this challenge, CSC should evaluate staff functions and focus responsibilities to maximize efficiency. The CSC should also encourage more opportunities for peer-to-peer knowledge exchange and consider convening experts in the key training content fields to ensure that training staff are abreast of the most up-to-date training concepts.
- The course development process should be reviewed to make more efficient use of time and allow more flexibility to respond to emerging issues; the survey instruments should be redesigned to more accurately assess audience needs and experiences; and methodologies should be explored to boost survey response rates.
- The CSC is encouraged to evaluate alternative methods for meeting audience needs as well as for reaching a broader audience, such as utilizing more online resources/training, identifying new organizational partnerships, and working with outside education and training providers.
- The CSC develops and provides training activities that result in benefits to secondary audiences which are not currently being adequately measured. Additional performance measures need to include benefits to co-workers of those who have been trained.
- Finally, expanding partnership opportunities with other training programs is advocated as a way to improve course reach and effectiveness. However, in order to maintain the strong reputation that the program has developed, the CSC will need a system to evaluate potential training partners.

Summary Findings - Coastal Training Program

The NERRS CTP is an effective system-wide training program that aims to improve science-based decision making related to coastal resource management at local and regional levels. The CTP performance measurement logic model has helped focus program development efforts and identify common indicators for tracking progress toward enhancing people's ability and willingness to make informed decisions and take responsible actions that affect coastal communities and ecosystems (Goal Three, 2005–2010 NERRS Strategic Plan). The NERRS CTP assessment is timely because the existing, detail-oriented CTP performance measurement system does not appear to serve its original purpose of informing NOAA managers, the NERRS, and its partners, constituents, and stakeholders of the overall effectiveness of the program.

Strengths –

- The CTP Coordinators are highly skilled, creative, and motivated conveners, trainers, catalysts, facilitators, supporters, and consultants in their local communities.

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- The CTP Coordinators are highly regarded by their constituents because of their enduring presence in the community and the extremely high quality of their services..
- The CTP appears to be very effective at providing science-based information, tools, and training to coastal decision makers to foster stewardship of coastal resources at the local and regional levels, as stated in the program's mission.
- The CTP Coordinators serve as facilitators for collaborative relationships with communities and stakeholders and support the development of working partnerships, both within and outside of their local watersheds (and/or NERRs).
- The CTP Coordinators have implemented extremely detailed self-reporting practices, designed to ensure that the training continues to be current, valuable, and quantifiable for measuring progress. The CTP Coordinators are to be commended for their dedicated efforts to develop a reporting system that can "tell the story" for their particular NERR.

Challenges and Improvement Options–

- Within the CTP, additional staff and staff training in the areas of skills development, problem solving, and working effectively within advocacy or political communities are desirable.
- Recognition of local CTP accomplishments by NOAA and others is important for celebrating staff successes.
- In an effort to free-up time and staff resources for new Reserves, the CTP should consider implementing a less involved and varied assessment approach (i.e., relying more on existing strategic plans and annual work plans) to guide the program, rather than the complex suite of analyses, assessments, and planning activities that are currently utilized.
- To streamline the administrative functions associated with reviewing and analyzing needs assessment results, Advisory Committee guidance, and strategic plan elements, the CTP should consider relying more heavily on Advisory Committee input into the strategic plan.
- As with the CSC, it would be desirable for CTP to expand their reach through the use of electronic and virtual environments.
- With regard to partnerships, the program would benefit from help with developing grant proposals and identifying funding partners.
- In order to provide needed scientific expertise in specific areas, the CTP should consider partnerships with other agencies, such as the Land Grant Universities and national nonprofit organizations. Collaborating with national organizations will help to establish partnerships and develop additional expertise.
- Finally, the CTP should consider revisions to the evaluation process, including streamlining the process overall, focusing on gathering more qualitative information, and revising the evaluation form.

The Review Team commends NOAA for the achievements of both the CTP and CSC programs and for their continued commitment to bringing needed information to coastal decision makers. They further commend NOAA for undertaking this external review. The Review Team Chair puts forward the findings and improvement options in this report for consideration in building on CSC's and CTP's existing successes.

I. Introduction

Since the 1990s, the National Oceanic and Atmospheric Administration's (NOAA's) National Ocean Service (NOS) has been building its capacity to address the training needs of decision makers and resource professionals in the coastal zone through two key programs, which are the focus of this report.

The National Estuarine Research Reserve System (NERRS) Coastal Training Program (CTP) is part of NERRS, a network of representative estuarine habitats protected and managed for the purpose of long-term research, education, and coastal stewardship. Established by Congress in 1972 as part of the Coastal Zone Management Act, the Reserve System is administered as a partnership between NOAA and coastal states. Each Reserve supports and coordinates research, education, and stewardship programs.

Through the CTP, the Reserve System is able to address critical coastal resource management issues by providing up-to-date scientific information, access to technologies, and skill-building opportunities for individuals responsible for making decisions about coastal resources. Reserve staff conduct market analyses and needs assessments to determine local training needs and appropriate audiences for topics such as habitat restoration, watershed and stormwater management, water quality, and land use/coastal development issues. The CTP is designed to better inform local and regional decision makers in order to improve coastal stewardship.

The Coastal Services Center's (CSC's) goal is to provide up-to-date technology, information, and management strategies for coastal managers to address complex issues. To meet this goal, the CSC provides training to build the capacity of organizations involved in managing and protecting coastal resources in three distinct areas: geospatial technology, coastal issues, and process skills.

Coastal Training Program and Coastal Services Center Training Partnership

The CSC and the CTP training programs were developed to complement one another. Although both programs aim to address the needs of coastal decision makers and coastal professionals, the CTP operates in partnership with *local* government agencies, *local* organizations, and the private sector. The CSC responds to *national* needs by developing and providing long-term courses and partnering with a range of agencies and organizations, including NERRS, Sea Grant, State resource management agencies, and others to serve as local hosts. Each organization's strengths are used to address the training needs of local decision-maker audiences. The CSC develops training based on coastal management issues, for implementation hosted locally by CTPs. The CSC/CTP partnership is complementary and mutually supportive.

Performance Measurement

Both the CSC and the CTP regularly conduct performance measurement activities to ensure that they are meeting their respective strategic goals and to identify opportunities to further enhance their programs. For the CTP, performance is reviewed semi-annually. Since 2004, NOAA's Estuarine Reserves Division (ERD) has collected performance data from each approved Coastal Training Program. In 2006, the Performance Measurement Workgroup developed 14 minimum performance requirements. This group also reminded local Coastal Training Programs to use participant evaluation questions verbatim from the performance monitoring manual. Only quantitative data on the overall number of CTP events and participants prior to 2006 are reflected

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in overall summaries of CTP efforts.

The CSC developed its training logic model in 2001 and revised it in 2008. The intended long-term outcome for CSC training activities is for coastal resource professionals to make improved decisions for more effective resource management. Key indicators from participant evaluations are measured after each training event and are reported on annually. Follow-up evaluations are conducted with participants periodically.

Appendix A includes strategic goals and performance measures for both the CSC and the CTP.

II. Background: External Review

Because neither the CSC nor the CTP training program had undergone an external review since their inception six and nine years ago, respectively, an External Review Team was convened to assess the system-wide effectiveness of each program and identify ways to support each one's vision, mission, and goals.

The External Review Team evaluation in September 2008 was the culmination of a strategic thinking process that began in 2006 and produced a joint CSC and CTP External Review Workgroup. This Workgroup came about as a result of a 2006 meeting of CTP Coordinators who had proposed the idea to the NERRS Strategic Committee of conducting a formative evaluation to assess the CTP's success in achieving its overarching goals: the transfer of science-based knowledge, skills, and information to address local and regional coastal resource management issues; program design; and ability to integrate NERRS research, education, and stewardship programs. At the same time, the CSC planned to conduct an external evaluation of its training program to assess its overall effectiveness at building the capacity of organizations and coastal decision makers to manage and protect coastal resources.

In 2007, funds were made available to conduct a joint external review of both the CSC and the CTP training programs by inviting outside experts to evaluate the effectiveness, relevance, and usefulness of both programs to ensure their long-term success. To prepare for the external review, the CSC and CTP formed an External Review Workgroup that was asked to:

- identify criteria for External Review Team membership and possible candidates;
- assist in the implementation of the External Review Team's directive;
- assist with compiling data and background information for the External Review Team;
- manage the External Review Team's facilitation contractor, GEARS; and
- make onsite arrangements for the External Review Team meeting.

III. Scope of the External Review

The review was conducted by a seven-person expert team, including a Chair and stakeholder representative. Team members were selected because of expertise in their fields and experience in training, education and outreach, evaluation, and/or local, State, and Federal management. The External Review Team was given the task of providing constructive feedback to NOAA about the training programs after reviewing briefing materials (program logic models, strategic plans, performance monitoring frameworks, summative evaluation data, case studies, and surveys) and

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conducting interviews and Team discussions involving CSC and CTP representatives, training providers, users, and partners.

The primary objective of the external review was for a team of outside experts to address program effectiveness and potential improvements for the CSC and CTP training programs in the following areas:

- overall program structure, function, delivery, and promotion;
- evaluation and performance measures; and
- internal and external partnerships.

To guide the External Review Team's analysis of the effectiveness of the CSC and CTP programs, five questions were developed to facilitate the Team's discussion:

1. How are the CSC and the CTP addressing priority needs expressed by coastal decision makers, as well as new and emerging coastal issues?
2. How successful have the CSC and the CTP been at enhancing the skills and knowledge of coastal decision makers and coastal resource professionals?
3. How can the CSC and the CTP improve training design and delivery, as well as science translation?
4. How can the CSC and the CTP improve and enhance partnerships?
5. How can the CSC and the CTP performance monitoring systems be improved to better address the programs' common goal of better informed decision making?

IV. About this Report

This report has been prepared as an external evaluation for the CSC and CTP programs. It is largely based on program background garnered at a meeting held with the CSC and CTP leadership, CSC Trainers, CTP Coordinators, and key stakeholders and beneficiaries of both programs on September 16–19, 2008, in Charleston, South Carolina, and subsequent Team discussions. The report discusses strengths and challenges as well as performance measures for each program. The improvement options are intended to guide the CSC and the CTP in their discussions about any modifications to each program's strategic plan, operations, and/or performance measures. Members of the Review Team contributed to the development of this report under the leadership of the Team's Chair.

V. Limitations of the Review Process and Related Improvement Options

- The review process included examining a wealth of background materials about each of the two programs. These materials were organized into a binder and included information about the training programs, performance measurement activities, strengths and challenges, and the CSC/CTP relationship. Several appendices were also included, which provided organizational overviews for NOAA and NERRS as well as for the CSC and the CTP. Example reports from other external reviews conducted by NOAA and NERRS were also provided. Team members received their binders one week before the Review Team meeting. The volume of materials provided and the distribution timeframe limited the ability of Team members to thoroughly review all materials prior to participating in the review. The presentations by officials from the

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CSC, CTP, NOAA, and NERRS proved to be useful for providing context for the review information.

- The agenda for the review process included presentations from CSC and CTP officials, respectively, and telephone interviews with stakeholders. Varied forms of information were provided to ensure that ample and useful explanations of the background information, program structure, goals, performance measures, and outcomes were provided to Team members. During implementation of the review process, Team members suggested modifications to the agenda. The purpose of the modifications was to increase the amount of time Team members could confer with each other, thereby expanding their opportunities to discuss strengths, opportunities, and improvement options for each program. The CSC and CTP staff agreed to the request for the modification.
- Because of the voluminous nature of the Review Team materials, the CSC and the CTP should consider the following for future review panels: when voluminous review materials are developed, provide a half-day session in the morning of the first day for a facilitated review of the materials. This will give the agency an opportunity to provide introductory comments and organizational and structural context for the information. Then follow with an afternoon session for Team members to review the materials internally.

Findings and Improvement Options - Coastal Services Center

VI. Findings and Improvement Options - Coastal Services Center

The CSC training program offers a variety of topics that effectively link the coastal resource management community with technology and social science-based expertise. The CSC plays a critical role in meeting its goal of providing current technology and information as well as relevant management strategies to coastal managers. The CSC Trainers work to provide training and technical assistance to build the capacity of organizations involved in managing and protecting coastal resources in three specific areas: geospatial technology, coastal issues, and process skills.

Strengths

During the external review, the Review Team was provided with an opportunity to interview CSC's training program participants to discuss benefits they may have received. This information, along with the briefing materials and presentations from CSC staff, allowed the Review Team to analyze many strengths of the program. The following sections detail those assets.

Resources

One of the main strengths of the CSC training program is its staff. Training staff at the CSC provide a very valuable product that enhances capacities of coastal managers at various levels. The staff members are highly skilled and enthusiastic about their role as training facilitators. They are dedicated to their mission and have earned a reputation among their peers as outstanding adult educators.

It was apparent through discussions with CSC leadership that upper management values its staff and is interested in improving personal skills related to job functions. Staff members are provided with a number of professional development opportunities to ensure that they are kept up-to-date on techniques for facilitating and delivering training programs. In addition, staff members belong to several professional associations.

Meeting Audience Needs

The CSC training programs are designed with a national scope in mind. These courses have a broad-based curriculum that can reach a variety of skill levels and are designed to address knowledge and skills gaps. Most of the training courses in the CSC catalog are offered free of charge to the host partner (excluding some geospatial courses). This provides an opportunity to reach many decision makers in varied coastal locations who might not otherwise have the financial means to travel.

The CSC staff provides host organizations with options to refine a training program to a specific audience need. Feedback that was garnered from recipients of CSC services was extremely complimentary. Many of those interviewed expressed a sincere appreciation of the staff for providing skills and expertise in areas ranging from GIS applications to logic model development to project design and evaluation. The CSC staff has a reputation of being in the forefront of adult education.

The CSC is reaching the right audiences with the right programs and—given their current staffing and funding constraints—should continue to concentrate on their core audience of Federal and State coastal decision makers.

Design Process

The CSC is effective in meeting its core value of producing high-quality products and services that positively influence decision makers. Programs and courses designed by the CSC are thoroughly vetted

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through a very strenuous process to ensure that the curriculum is of the highest quality. The lengthy development process includes market analysis, surveys, interviews, course development and refinement, peer review, dry runs, and piloting. The process has provided the CSC with programs that are highly valued.

Measuring Performance

The CSC has implemented the use of logic models to identify key performance indicators for measuring outcomes. Staff distributes evaluation forms after every training event and uses the information collected to improve their outreach. Short-, mid-, and long-term outcomes have been identified for measurement. Short-term quantitative measures are well captured and communicated.

Partnerships

The CSC coordinates training of the CTP staff and offers expertise to local decision makers through CTP-organized events. The two organizations have a good relationship. Additionally, the CSC has forged partnerships with other Federal, State, international, and nonprofit organizations. Examples include Sea Grant, the U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, Lake Michigan Coastal Program, Alaska Department of Fish and Game, the Conservation Fund, The Nature Conservancy, the International Union for Conservation of Nature and Natural Resources–Vietnam, and others too numerous to list in this report. Appendix B includes a list of CSC training partners during Fiscal Years 2006 and 2007.

Challenges

There are a number of challenges within the CSC training program. This section highlights those challenges and offers potential steps to meet them.

Resources

The CSC staff admitted that they have reached a “resource ceiling” and have been unable to fully respond to audience needs because of lack of staff, funding, and most importantly, time. Training staff are involved in providing hands-on learning, which includes multiple days in a classroom setting with associated travel and preparation time. Additionally, the same staff is involved in the arduous process of course development, which tends to require time-consuming involvement in detailed analyses of topics and needs. Staff indicated that these dual responsibilities allow them to fully understand the courses before they are taught. However, this system seems to limit the CSC’s availability to reach additional customers.

1. Evaluate staff functions and focus responsibilities to maximize efficiency.

Staff allocations should be re-evaluated to determine if efficiencies can be gained by focusing staff on a single training function, either outreach or development. Staff dedicated solely to development of programs may realize a faster turnaround, thus resulting in opportunities to respond more quickly to audience need.

As mentioned in the “Strengths” section, the CSC is commended for placing a high level of importance on staff development plans. The value of staff professional development should be maintained. However, the staff may benefit if NOAA leadership introduced additional methods to enhance skill levels.

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2. Encourage new professional development opportunities to build staff knowledge and skill base.

The CSC should encourage more opportunities for peer-to-peer knowledge exchange and consider convening experts to ensure that training staff are abreast of the most up-to-date training concepts.

Meeting Audience Needs

Literature provided to the Review Team in the briefing books indicated that the CSC approaches projects and services from the customer's perspective by developing and providing multiple, long-term training courses. However, the length of the process for developing many of the courses appears to result in an intense focus on the product outcome rather than the need of the customer. This process also appears to limit the ability to be nimble in responding to emerging needs.

3. Redesign the course development process to make more efficient use of time and allow more flexibility to respond to emerging issues.

Development of training courses is onerous and the process should be streamlined to be more effective. Although extremely thorough, the current process sometimes takes years to result in a final course design. The "assessment" arm of the process includes many pre-design investigations and interviews to guide development of training courses. Additionally, several pilot courses are conducted at the end of the process to refine the product. These extra steps may be unnecessary to fully refine the output during the design process, and may be hindering the ability of the CSC to respond to audience needs in a timely manner. Modifications could be made based on evaluations of participants.

The CSC program appears to be highly dependent on survey research methods for determining their customers' training needs. The program engages in a two-step process. The first step focuses on broad and general information and includes a triennial survey. This survey focuses on coastal management trends, networking, and formal and informal contacts with partner organizations. The second step focuses on specific training needs once a subject has been determined through step one. This step includes conducting specific needs assessment through surveys or existing data to narrow the focus to meet audience needs. The review team feels that the quality of the data gathered through these processes may be limited. In particular, the triennial survey tends to garner a very low response rate. According to the CSC, surveys are developed in-house and are reviewed by a social scientist on staff. However, they are not developed in concert with their audience, nor are they pre-tested or validated by their audience. It is unclear why response rates have been low. However, the CSC should determine if there is a relationship between the low response rates and the wording of the surveys (i.e., do surveys reflect the perspectives, language, or experiences of their audience?).

4. Redesign survey instruments to more accurately assess audience needs.

Needs assessments should seek qualitative, nonsystematic feedback. Staff should conduct a few in-depth interviews with previous trainees to determine:

- what aspects of the program were beneficial,
- how the information that was learned is being practiced,
- what the impact is within their realm of influence,
- what barriers they may be encountering when implementing what they learned, and
- which improvement options for addressing barriers may be appropriate.

This feedback, while not quantifiable, can provide strong support for developing highly relevant questions on subsequent surveys.

When developing surveys, staff should pretest the survey questions with a small target audience. Survey pretesting should be conducted as an interactive session during which participants can provide feedback regarding the survey length, understanding of the questions, relevance of the response categories, and relevance of the topics addressed. Finally, a smaller sample size should be targeted in an effort to increase the response rate. Staff should pursue this target audience via phone, mail, or other avenues to ensure response.

5. Explore methodologies to boost response rates.

Use relationships with the target audience to identify the best methods for reaching them including telephone, mail, Web, or a combination of outlets. Determine if upfront token incentives, which generally work well, are allowed. If they are allowed, determine which may be the most appropriate and effective for the audience (e.g., discounts for fee-based workshops). Relationships with the target audience should also be used to identify barriers to responding to feedback requests. Time is likely a significant barrier; therefore, considering the implementation of short surveys may be key.

It appears that the CSC is reaching the right audiences with the right programs and should continue to concentrate on their core audience of Federal and State coastal decision makers. However, there is a basic impression that the CSC struggles with understanding the size of their potential audience, even within the State and Federal communities, and, as a result, may be creating a cycle of limited participants. The CSC should consider whether it has underestimated the size of their audience: due to turnover in staffing as well as the dynamic state of information, technology, and techniques, the audience may be essentially unlimited.

6. Evaluate alternative methods for meeting audience needs.

Designing alternative methods of providing training courses could allow the CSC to meet potential audience needs that are currently not being recognized. The CSC's resources are limited, and this seems to encourage a more targeted learning approach that has resulted in a limited audience. By investigating alternative methods of delivery (e.g., via the World Wide Web), the CSC could promote its programs more widely and have a greater impact on coastal management. Shorter, less technical courses could be augmented for the Web to provide basic skills training. Additionally, these types of courses could be "contracted" to outside education providers for expanded reach. This method of delivery is discussed more in the section "Partnerships" below.

As a supplement to providing direct training opportunities, the CSC should investigate the potential benefit of serving as an information/education broker. A strategic approach that includes (1) evaluating national level training needs, (2) analyzing gaps in learning, and (3) identifying outside providers of services, particularly social science-based training, may enable the CSC to reach an audience that is larger, broader in scope, and more diverse in terms of geographic location and participant skill levels. This strategy provides a more efficient and opportunistic method of linking coastal managers with appropriate educational training.

Measuring Performance

Training staff at the CSC provide a very valuable product that enhances the capacity of coastal managers at various levels to protect coastal resources. Currently, these training efforts are only measured by evaluating the benefit that the courses provide for the direct recipient. The CSC is providing a service that reaches beyond the direct recipient.

7. Performance indicators should be augmented to include measures that capture benefits gained from secondary audiences.

Primary audiences participate in training activities, but most of the customers interviewed by the External Review Team cited large secondary audiences who were impacted by the work/skills resulting from the CSC training program. Determining methods for identifying this impact would provide a better indicator of the value of the CSC's program. Performance measures should be designed to capture the benefits that are realized by an agency, program, or other areas of the community as a result of a trainee's increased skills and knowledge gained through CSC services.

The CSC staff is commended for identifying and implementing short-, mid- and long-term evaluation milestones. Staff should consider exploring additional resources for more activities at the mid- and long-term intervals to enhance its knowledge of the impact of training activities.

8. Improve standards and measures of current performance indicators to more accurately capture impact, including a focus on long-term evaluation milestones and benefits to users in the workplace.

Long-range evaluation would provide a valuable conduit for measuring how successful audiences are at implementing the skill sets learned and would provide useful feedback for modifying courses as needed. The CSC has proposed improving the current system of performance measures to broaden the scope of evaluation, including measurement of benefits to users in the workplace. These expanded indicators should be implemented and enhanced as described above to capture a more accurate, quantitative measure of the benefits of training.

The qualitative measures that are currently in place do not represent the effort or value of the programs. One specific performance indicator measures outcomes as "the percentage of participants who rated the CSC as at least an 'average' when asked how well the learning objectives were met." A significant amount of time is invested in developing course objectives and delivery to ensure that programs are of the highest quality. Measuring for "average" seems to devalue the time investment of the training staff. Management should re-evaluate standards and measures to align effort with performance.

Partnerships

As referenced in other sections, the CSC appeared successful in its partnerships with other areas of NOAA, specifically with the NERRS Coastal Training Program and Sea Grant. The CSC should continue to maintain effective partnerships and consider opportunities to develop additional partnerships when appropriate and feasible.

9. Invest resources in enhancing partnerships and collaborative efforts to expand reach.

Effective partnering with appropriate organizations and associations would provide additional opportunities to expand the reach of the CSC training program. A survey of CSC training providers indicated that almost 80 percent of the staff felt that more partnering opportunities with other educational programs would improve course effectiveness. The CSC leadership should encourage these partnerships to advance the CSC's audience reach.

It is understood that the CSC is functioning with limited resources, which dictates the number of programs that can be offered in a given year. However, the CSC should consider expanding its reach

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by maximizing partnerships with outside educators and training professionals. The CSC training staff acknowledged that this type of partnership could be expanded but was cautious about exploring these options, largely because of concerns about preserving CSC's reputation if it allows other groups to deliver its curriculum.

10. Develop guidelines and/or certification programs that will ensure partners have the appropriate level of knowledge and understanding of CSC courses to ensure quality services are being provided.

The CSC hires outside instructors on occasion to assist with teaching courses such as facilitation training. The CSC should consider amplifying these contracted services through either private educational providers or the public university system to reach audience needs. Staff should investigate establishing a certification or affiliation program that would allow the CSC to evaluate potential training partners to ensure that quality and reputation are maintained. Certification may include required course knowledge, accreditations, minimum training contact hours, etc. If the CSC is not comfortable with a partner serving as the lead trainer, the partner could provide support during trainings to allow larger class sizes for each course.

In addition, the CSC relies on host partners to ensure the right audience is at a site-specific training event. This can pose a problem, because a host may lack understanding of a participant's needed baseline skill set in order to benefit from the training. Additionally, the host partner may be more concerned with having an adequate number of participants in the program and, as a result, may ignore the relevance of the course to the audience or the required prerequisite skills. The CSC should develop specific guidelines for host partners that identify basic competencies or appropriate audiences for each of their courses.

Findings and Improvement Options - Coastal Training Program

VII. Findings and Improvement Options - Coastal Training Program

The NERRS Coastal Training Program (CTP) is a system-wide training program that aims to improve science-based decision making related to coastal resource management at local and regional levels. The CTP offers both “classroom” training (although the venue may or may not be in the classroom, it is typically a one-to-two-day session), and technical assistance or consultative services. The latter can range from engaging community leaders in a local development or conservation plan, to providing individual consulting services on the best way to approach a local nonprofit organization. Each CTP is unique, reflects different stages of development, and serves a wide variety of communities that have varying environmental issues and needs. Program offerings have evolved over time with the development of trust and respect from the local communities, and some have moved away from more traditional training toward a combination of training, technical, and consultative assistance in order to directly serve the immediate needs of the surrounding community.

The NERRS training assessment is timely. NERRS has evolved such that some of the time-consuming performance evaluation processes do not serve the original purpose of informing NOAA managers, the NERRS, and their partners, constituents, and stakeholders of the overall effectiveness of the program. Indeed, after looking at the overall issues related to NERRS staffing, the ability to meet audience needs, training capabilities, developing partnerships, and measuring performance, the performance assessment area provides significant opportunities for enhancement. Changes could help to more efficiently capture the most important information relative to program effectiveness, and provide additional time for the CTP Coordinators to focus on serving the public and improving environmental conditions.

Strengths

As a result of reviewing the briefing materials, as well as interviews and discussions held during the Review Team meeting, several CTP strengths were identified. The following information summarizes these strengths.

Staffing

The CTP Coordinators are highly skilled, creative, and motivated conveners, trainers, catalysts, facilitators, and consultants in their local communities. These individuals were found to be dedicated to their mission and remarkably able to provide valuable services with limited funding. They are extremely flexible and able to address changing needs and situations. Training participants and partners interviewed during the review expressed their appreciation of the Coordinators’ efforts and praised their abilities and dedication. The review revealed that the CTP Coordinators are well networked. They also serve as mentors to new Coordinators and share information in a number of different forums. The CTP Coordinators are respected as experts in their respective fields of study. Many are members of professional organizations and are widely recognized for their knowledge and experience.

Meeting Audience/Community Needs

The CTP Coordinators are very effective. Because of their enduring presence in the community and the extremely high quality of their services, CTP Coordinators are well regarded by their training participants. Each local CTP convenes an Advisory Committee with broad-based representation, which keeps their activities current and grounded. Most CTP services are provided free-of-charge, enabling

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low-income communities to make use of the valuable skills offered by the program (e.g., the community of Moss Point, Mississippi, which was devastated by Hurricane Katrina).

Training

The CTP appears to be very effective at providing science-based information, tools, and training to coastal decision makers to foster stewardship of coastal resources at the local and regional levels, as stated in the program's mission. The CTP Coordinators are able to exercise flexibility to meet local needs and adjust to changing situations (e.g., provide more technical and consultative assistance as required). The CTP should maintain this flexibility.

Partnerships

The CTP and the CSC have a strong working relationship, and the CSC offers training at NERR sites as much as capacity allows. The CSC training includes capacity building and technical courses, both of which are well received. The CTP depends upon broad-based partnerships at the local, State, regional, and national levels to achieve a common goal of protecting and improving coastal ecosystems. Not only do partners bring resources, but they also provide local credibility and advocacy, and are important for networking and developing contacts within the CTP communities.

It seems that the local presence of the CTP allows it to be a catalyst for collaborative relationships with communities and stakeholders. The local CTPs support the development of working partnerships, both within and outside of their local watersheds (and/or NERRs). Although their activities are clearly focused on training and providing non-formal education based on outreach principles, local CTPs also are well positioned to foster partnerships among stakeholder groups that live and work within and around their NERR boundaries. The CTP Coordinators described to the Review Team efforts that included coalition building, organizational development activities in local communities, and various teaching techniques that support local groups who organize themselves in an effort to protect their estuaries. The CTP Coordinators, in some instances, relied upon staff of the CSC for advice about such activities, but most emphasize their own need for expanded skills to handle such dynamic situations.

This report includes a broad set of suggested core competencies for the CTP Coordinators (Section VIII), and offers specific skills that may enhance their success. It is understood that the CSC has the ability to provide certain aspects of CTP staff development; however, additional relationships could be explored with local community colleges and area universities to provide professional development opportunities for the CTP Coordinators.

Appendix B includes a list of CTP partners during Fiscal Year 2007.

Measuring Performance

The CTP Coordinators have implemented extremely detailed self-reporting practices, designed to ensure that the training continues to be current, valuable, and quantifiable for measuring progress. This assessment process includes immediate and occasional follow-up surveys of classroom trainees and recipients of technical assistance. The questions in the surveys are developed around program indicators, which are quite comprehensive. In addition, reporting on progress often includes qualitative descriptions of training successes. The CTP Coordinators are to be commended for their dedicated efforts to develop a reporting system that can "tell the story" for their particular NERR. The indicators that the CTP Coordinators have developed for classroom training are based on a logic model that explicitly links to environmental endpoints, which is also to be commended.

Challenges

During the review process, challenges were identified that relate to the CTP operations and activities. Below is a presentation of these challenges and potential steps to address them.

Staffing

1. Provide assistance to Coordinators for program development tasks.

Although some CTP Coordinators have been able to secure funding to support hiring additional staff, Coordinators generally expressed a sense of pressing community needs that outstrip their ability to address them (e.g., staff, resources, time, programmatic capacity/skills, etc.). One option for improvement includes providing more assistance to Coordinators for securing additional funding and in-kind services to address these critical needs.

2. Identify additional training and skills development opportunities for Coordinators.

The CTP Coordinators expressed a desire for additional training and skills development. Such activities should enhance their ability to continue to effectively serve their training participants. The CTP should consider establishing core competencies and having CTP Coordinators develop Individual Development Plans (IDPs). The IDPs, one for each CTP Coordinator, would address the needs and training opportunities specific to that Coordinator's local area.

3. Provide training for Coordinators in collaborative problem-solving skills.

Coastal situations are becoming more complex and contentious, requiring training programs and Coordinators to increasingly highlight skill building in collaborative processes for joint decision making and integrating science into community problem solving. Training activities for Coordinators in these areas should be emphasized. The CTP should consider engaging the Performance Measurement Review Team to assist in identifying appropriate training topics.

4. Establish venues for Coordinators to share professional expertise.

CTP Coordinators have broad experiences and knowledge that would be valuable to share with each other. Although this currently happens informally, the CTP should consider establishing more formal venues (i.e., annual workshops, dedicated agenda item on regular conference calls, etc.) for Coordinators to share expertise and build professional capacity to more effectively serve their communities. This could be implemented in conjunction with the CSC training activities when feasible (e.g., include lunch-and-learn sessions during training activities for CTP Coordinators).

5. Look for opportunities to recognize and celebrate achievements and performance.

Recognizing and celebrating professional achievements and growth are powerful motivators of improved productivity. The CTP should examine opportunities for awards or other methods of distinguishing outstanding performance.

6. Provide Coordinators with guidelines for maneuvering political situations.

Occasionally politics (local, State, or regional) can become an issue that may have an impact on a program's effectiveness. The CTP should consider providing general guidelines to the CTP Coordinators to help them assess their involvement and/or role in a situation that may potentially involve political or advocacy activities.

Meeting Audience/Community Needs

7. Streamline formal assessment, analyses, and planning exercises to include only a strategic plan and annual work plans.

CTP Coordinators of Reserves entering the operational phase conduct a needs assessment, produce a marketing analysis that identifies where or how those needs are met, and develop a marketing plan as well as a strategic plan. Additionally, they establish a CTP Advisory Group or Committee. For fully operational Reserves, the only required update is the strategic plan which must be updated every three years. Other elements are voluntary for fully operational Reserves at the strategic planning update. For Reserves entering the operational phase, the level of participation in formal exercises may be limited (e.g., in the case of one local CTP encountered during the external review, the needs assessment was based on survey responses of 27 people). Also, the upfront analyses can be overwhelming in the initial development phase for a NERR with a small staff that is developing their capabilities. As such, the CTP should determine if it is possible to achieve the same level of high-quality service through a varied assessment approach for such Reserves (e.g., a strategic plan and annual work plans with input from the Advisory Committee). The CTP should also consider implementing—for fully operational Reserves—a five-year update for the strategic plan, a timeframe often used by the Federal government.

Training

8. Consider developing a training program that relies more on Advisory Committee input into the strategic plan.

Although the combination of the needs assessment, guidance from the Advisory Committee, and strategic planning may result in the delivery of on-target programs that maximize value, the CTP should consider the development of a training program that relies more heavily on Advisory Committee input into the strategic plan. It is possible that the Coordinators may be able to streamline their upfront administrative processes associated with reviewing and analyzing these inputs on their way to implementing a training program that is just as effective and can reach more people.

9. Investigate ways to expand the reach of training and technical assistance programs.

The local CTPs should investigate ways to expand their reach (virtually and electronically), in both training and technical assistance activities. If relevant skill sets are not available in the local NERR, the CTP should consider training for the CTP Coordinator and additional staff. The CTP should also consider technical and resource support to the program.

Partnerships

10. Provide additional support to facilitate the development of funding opportunities.

With current funding stretched thinly among competing projects, the CTP could use additional support from NERRS for cultivating funding partners and developing grant proposals.

11. Explore additional partnerships, especially with Land Grant Universities, to draw on specific scientific expertise needed in particular locales.

In areas of the country, such as the far southern and western coasts of the United States, the CSC's ability to support the CTP and local NERRs can be a challenge because of staffing levels. (Note: The Review Team did not interview CTP staff from western projects; however, the Team did discuss related challenges.) The CSC should consider exploring strategies to augment available trainers in this area. Such strategies should address the preservation of the CSC's reputation with

an evaluation plan to ensure appropriateness and effectiveness of training delivered using this model. Examples may include developing a core of trainers through train-the-trainer sessions and Webinars, when appropriate. Another example is enhancing partnerships to include other agencies and Land Grant Universities. Attention could be focused on expanding the scientific expertise that the CTP needs to draw upon in localized areas. These partnerships could also expand the educational outreach programming, as well as access to curriculum and educational materials, and tap into evaluation expertise—essential support needs identified by the CTP to perform their work.

12. Explore broader collaborations with national entities.

The national staff of NOAA should consider exploring broader collaborations with other national entities. Sea Grant has been an obvious partner; however, additional relationships with the Cooperative State Research, Education, and Extension Service could leverage additional scientific expertise and, in some instances, establish partnerships for program delivery with local extension agents.

Measuring Performance

13. Streamline the training program evaluation process.

The CTP should consider streamlining the training program evaluation process significantly for several reasons. The initial requirements for a local CTP to develop a training program are extensive, including a needs assessment, market analysis, and strategic plan. An Advisory Committee supplies additional local input into the program plan. Performance assessment may include reporting on detailed surveys provided to every program participant, selected follow-up interviews, and surveys requested of individuals who receive consultative or technical assistance. Site assessments are also conducted every three years. In addition, for public funds, reporting is required of grant recipients. Specifically, NOAA requires semi-annual grant reporting for NERRS Operations awards. Some elements of grant reporting may be reflected in the performance evaluation process. The CTP should consider engaging the Performance Measurement Review Team to assist in determining if streamlining is feasible, and if so, how it may be best accomplished.

14. Focus training evaluation on gathering qualitative information.

The training evaluation questions seem targeted to gather information on the first two stages of the logic model; only the qualitative descriptions appear to capture community behavior change or improvement in environmental conditions. The CTP should consider focusing more on qualitative reporting than quantitative. The value of consistent reporting mechanisms is understood, but in light of the number of NERRs (e.g., the improvement option might be different if there were 150), the CTP should consider the enhancements in capturing the unique nature of each CTP product (e.g., contribution to conservation plans, development of local ordinances, etc.) through qualitative information. Enhanced qualitative information may also assist the CTP in “telling their story” to supervisors and other CTP and NERRS leaders, providing an opportunity to expound on what quantitative information will show.

15. Revisions to the evaluation form.

The CTP should also consider the following:

- Revisit the participant evaluation form to reduce questions to a minimum, including only those that will yield information useful for intended program evaluation activities. Consider

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engaging the Performance Measures Workgroup and external stakeholders to develop language that will be consistently understood by participants.

- Consider revising the following measures:
 - Rate the quality of the training
 - Rate the content of the training
 - Rate the quality of the trainer(s).
- Consider if the information gleaned from performance indicator number five (i.e., intention to apply knowledge and skills gained) provides ample detail about participants' intent to use the information. If the desired detail is not provided, consider alternate strategies to determine if participants anticipate using the course content in their work within the community and how. Also consider follow-up with trainees selectively after program delivery to better capture the longer term and "ripple" effects and impacts, looking particularly at behavior change and/or potential, or actual environmental impact. Also, count the number of trainees.
- Review current methods to document consultative contact hours for time spent with community members to ensure that the desired details are obtained. Also consider including qualitative information in greater detail (e.g., 25 percent was related to the development of the conservation plan).
- Consider revising and enhancing the individual staff performance measurement system for CTP Coordinators to:
 - Provide performance-based indicators that more directly reflect staff tasks and stakeholder relevance (e.g., capacity-building indicators such as networking and technical competency); and
 - Clarify the distinction between the role and outcomes of technical assistance and training. Currently, indicators are based on training but most outcomes are based on technical assistance.
- Consider standardizing the questions asked about CSC and CTP training, unless there are sufficient reasons for the reporting to be different.

VIII. Core Competencies for Coastal Training Program Coordinators

There is an increasing need for CTP Coordinators to have basic knowledge and skills that extend beyond the biophysical sciences. This is especially relevant given the diverse assignments of these positions.

Being an effective CTP Coordinator requires a solid grounding in coastal and marine science, while also possessing a conceptual framework for understanding decision-making processes of individuals and communities. The professional skill set of CTP Coordinators should reflect a balance between being a technical resource, outreach teacher, and facilitator. Additionally, training Coordinators must possess the skill set to work with a variety of individuals, spanning multiple cultures and racial/ethnic groups.

The CTP should consider the need to support the professionalism of the CTP Coordinators by expanding their skills in areas related to social science, non-formal adult education theory and group process skills, and community and organizational development. The core competencies listed below are illustrative of those that may enhance the success of CTP Coordinators. The Review Team found although most CTP Coordinators enter their positions with expert knowledge and skills in only some of these areas, they also tend to be enthusiastic life-long learners, eager and able to add to their

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repertoire of knowledge and skills. Therefore, the Review Team suggests that CTP Coordinator hires continue to be evaluated on not only their set of incoming core competencies but also their potential to add to them.

Area	Competency/Skill Required
<i>Natural Resources – understanding the impacts of natural resources uses and polices on communities</i>	<ul style="list-style-type: none"> • Forestry • Marine science • Natural resource management • Oceanography • Soil/land quality • Water resources • Wildlife management
<i>Educational (outreach) Programming – ability to plan, design, implement, and evaluate outreach efforts for individuals and groups</i>	<ul style="list-style-type: none"> • Communication skills (written and verbal) • Adult and non-formal educational program principles • Theories of behavior change
<i>Cultural Competence – understanding the values, behaviors, attitudes, and practices that enable people to work effectively across racial/ethnic and cultural lines</i>	<ul style="list-style-type: none"> • Impact of cultural differences on community leadership, mobilization, and information dissemination • Impact of culture on effective communication and intervention strategies • Understanding the impact that historical experiences have on different cultural groups' ability to trust information from the government
<i>Engagement – ability to recognize and facilitate opportunities for individuals and communities to respond</i>	<ul style="list-style-type: none"> • Community leadership development • Participatory planning • Empowerment
<i>Community Processes – the ability to identify and monitor issues important to community well being</i>	<ul style="list-style-type: none"> • Principles of community development • The forms of community capital • Processes to identify and prioritize issues within a community • Comprehensive planning processes • Diversity and inclusive decision making • Community situational analysis • Community power structures • Civic networks
<i>Public Policy Education – understanding the basics of local government, its functions, and participatory decision-making techniques for community action</i>	<ul style="list-style-type: none"> • Models of municipal decision making • Participatory planning processes • Customer service for governmental organizations • Government policy formulation • Regulatory tools (e.g., how ordinances and zoning are used)

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Area	Competency/Skill Required
<i>Organizational Development – techniques for supporting and creating citizen (and nonprofit) organizations</i>	<ul style="list-style-type: none"> • Nonprofit organizational development models • Volunteerism development • Fund development • Board and group leadership models • Capacity building
<i>Group Process and Facilitation – understanding how groups function and make decisions</i>	<ul style="list-style-type: none"> • Facilitation • Collaboration building • Conflict management • Group deliberation • Building shared leadership in groups
<i>Social Science Evaluation/Research – knowledge of techniques for understanding audience needs and evaluating CTP programming</i>	<ul style="list-style-type: none"> • Summative evaluation techniques • Formative evaluation techniques • Participatory evaluation techniques • Community demographics • Community economics • Logic model development • Qualitative and quantities techniques • Evaluation and feedback tools (surveys, case studies, focus groups, formal, non-formal, etc.)

The CTP Coordinators would benefit from individual professional development plans. Annually, as part of a personnel review process, the CTP should encourage staff to expand their skills and knowledge of areas deemed appropriate in consultations with their supervisors. Not all of the skills are necessary in any one CTP Coordinator; rather, they are offered as examples from which to encourage professional growth based on the needs of the position. Since access to professional development opportunities may be difficult due to limited existing opportunities for specific training nationally, the CTP should consider exploring ways to partner with other entities, such as universities and community colleges, to develop specific training programs to meet needs such as those identified above.

Appendix A

Strategic Goals

Strategic Goals

Coastal Training Program	Coastal Services Center
<p>Strategic Goal: Better informed decision making by local and regional coastal decision makers to improve coastal stewardship.</p>	<p>Intended Outcome: Coastal resource professionals making improved decisions for more effective resource management.</p>
<p>Objectives:</p> <ul style="list-style-type: none"> • Local and regional coastal decision makers increasingly apply science-based knowledge and skills in their work related to NERRS priority issues. <ul style="list-style-type: none"> ✓ Coastal decision makers increase their scientific understanding of the NERRS priority issues. ✓ Coastal decision makers improve their abilities to access science-based resources related to NERRS priority issues. ✓ Coastal decision makers increase skills related to technologies and/or best management practices for NERRS priority issues. 	<p>Short-Term Outcomes:</p> <ul style="list-style-type: none"> • Coastal resource professionals have enhanced skills and knowledge for managing coastal resources. • Participants understand content of the training. • Trainees intend to use new information on the job. • Contacts are made for later collaborative work. • Partnerships are maintained.
<ul style="list-style-type: none"> • Local and regional coastal decision makers increasingly apply diverse perspectives related to NERRS priority issues. <ul style="list-style-type: none"> ✓ Coastal decision makers increase the diversity of their contacts for NERRS priority issues. ✓ Coastal decision makers are increasingly aware of opportunities for collaboration regarding NERRS priority issues. 	<p>Mid-Term Outcomes:</p> <ul style="list-style-type: none"> • Learned skills are applied to jobs. • Participants share information and techniques learned with their organization, partners, and stakeholders. • Participants recommend training to others. • Technical assistance is requested. • The partnership base is expanded.
	<p>Long-Term Outcomes:</p> <ul style="list-style-type: none"> • Coastal resource professionals use the knowledge and skills gained through training and technical assistance to effectively manage coastal resources. • Coastal professionals from across organizations and agencies work with each other.
<p>Total number of indicators: 14</p>	<p>Total number of indicators: 7</p>

Appendix B

Coastal Services Center and Coastal Training Program Partners

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NOAA Coastal Services Center Training Partners (Hosts) Fiscal Years 2006 and 2007	
Federal Government	<ul style="list-style-type: none"> • NOAA Atlantic Oceanographic Meteorological Laboratory, FL • NOAA National Marine Sanctuaries International Office • NOAA National Ocean Service • USDA Forest Service, NH • USDA Natural Resources Conservation Service, USVI - 2 courses
State Government	<ul style="list-style-type: none"> • Alabama Department of Conservation and Natural Resources, AL • Alaska Department of Fish and Game, AK • California Coastal Commission, CA - 3 courses • Florida Coastal Management Program, FL - 4 courses • Georgia Coastal Zone Management Program, GA - 2 courses • Hudson Greenways, NY • Lake Michigan Coastal Program, IN - 4 courses • Maine Coastal Program, ME • New York Department of Environmental Protection, NY • North Carolina Aquarium at Fort Fisher, NC • North Carolina Aquarium at Manteo, NC • Ohio Coastal Management Program, OH • Ohio Department of Natural Resources, OH • Pennsylvania Coastal Management Program/Department of Natural Resources, PA
National Estuarine Research Reserve (NERR)	<ul style="list-style-type: none"> • ACE Basin, SC - 2 courses • Apalachicola, FL - 3 courses • Chesapeake Bay, MD • Delaware • Jobos Bay, Puerto Rico • Kachemak Bay, AK - 3 courses • North Carolina • South Slough, OR - 2 courses • Waquoit Bay, MA - 2 courses • Weeks Bay, AL • Wells, ME • NERR Annual Meeting
Sea Grant	<ul style="list-style-type: none"> • Florida Sea Grant Extension Program, FL • Hawaii Sea Grant Extension Program, HI - 2 courses • Illinois-Indiana Sea Grant Extension Program, IL-IN • Minnesota Sea Grant Extension Program, MN • New Hampshire Sea Grant Extension Program, NH • New York Sea Grant Extension Program, NY • Ohio Sea Grant Extension Program, OH • Pennsylvania Sea Grant Extension Program, PA - 2 courses

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NOAA Coastal Services Center Training Partners (Hosts) Fiscal Years 2006 and 2007	
	<ul style="list-style-type: none"> • University of Southern California Sea Grant, CA • National Sea Grant Office
University/Academia	<ul style="list-style-type: none"> • CIRES – University of Colorado, CO • Hanover County NCSU Cooperative Extension, NC • Texas Agricultural Extension Service, TX • University of New Hampshire Cooperative Extension, NH • University of North Carolina at Wilmington – MarineQuest, NC • University of Rhode Island Cooperative Extension, RI • Virginia Cooperative Extension, VA • Wake County NCSU Cooperative Extension, NC
Non-Governmental Organization (NGO)/ Nonprofit	<ul style="list-style-type: none"> • Association of State Flood Plain Managers • Land Trust Alliance • National Aquarium in Baltimore, MD • The Coastal Society • The Nature Conservancy, Belize • The Ocean Conservancy • Watershed Agricultural Council, NY
National Estuary Program	<ul style="list-style-type: none"> • Charlotte Harbor, FL
Regional	<ul style="list-style-type: none"> • Atlantic States Marine Fisheries Commission • Gulf of Maine Council on the Marine Environment • New England Fisheries Management Council • Northwest Straits Marine Commission
Miscellaneous	<ul style="list-style-type: none"> • Coastal Community Development Specialists New Partners Conference, CO • Wisconsin Association of Stormwater, Floodplain and Coastal Managers State Conference

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NERRS Coastal Training Program Key Partners Fiscal Year 2007	
ACE Basin NERR	<ul style="list-style-type: none"> • South Carolina Department of Natural Resources • Palmetto Bluff Conservancy • NOAA Coastal Services Center • Town of Hilton Head Island, SC • Town of Edisto Beach, SC • Town of Hollywood, SC • South Carolina SeaGrant Consortium • Town of Bluffton, SC • Carolinas Ready Mix Concrete Association • Beaufort Jasper Water and Sewer Authority • Southeast Regional Diamondback Terrapin Working Group • NI/WB, SC NERR CTP • Sapelo Island, GA NERR CTP • NC NERR CTP • University of Maryland Center for Environmental Science
Apalachicola NERR	<ul style="list-style-type: none"> • Florida Department of Environmental Protection: <ul style="list-style-type: none"> NW District – Environmental Resource Permitting Staff NW Florida and Central Panhandle Aquatic Preserves Managers Office of Submerged Lands and Environmental Resources Wetland Evaluation and Delineation Section Clean Marina Program Wetland Resources and Submerged Lands Programs • NE District – Environmental Resource Permitting • Big Bend Seagrass and St. Martins Marsh Aquatic Preserves Manager • Beaches and Coastal Systems • Steve Bliven and Ruth Kelty – NOAA/NCOSS • Pandion Systems • Florida Division of Forestry and DOF Chipola District • Florida Division of Forestry - Apalachicola District and Tate’s Hell State Forest • St. Joseph Bay State Buffer Preserve and Friends of Joseph Bay State Preserves • Friends of the Reserve (Apalachicola) • Suwannee River Water Management District • Carrabelle Boat Club • The Moorings Marina • City of Carrabelle, FL • Florida Fish and Wildlife Conservation Commission Marina Lab in Cedar Key • U.S. Army Corps of Engineers • University of Florida/IFAS Aquaculture Extension Program • Florida Dept. of Agriculture and Consumer Services - Shellfish and Aquaculture Programs • NOAA – Coastal Services Center • Dr. Loran Anderson, Botanist (retired professor from Florida State University)
Chesapeake Bay NERR Maryland	<ul style="list-style-type: none"> • Maryland Tributary Strategy Program • Maryland Sea Grant • Maryland Chesapeake and Coastal Programs

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NERRS Coastal Training Program Key Partners Fiscal Year 2007	
	<ul style="list-style-type: none"> • Anne Arundel County, MD • Harford County, MD • Maryland National Capital Park and Planning Commission
Chesapeake Bay NERR Virginia	<ul style="list-style-type: none"> • Chesapeake Research Consortium • Chesapeake Bay Trust • Virginia Department of Forestry • VA Department of Conservation and Recreation, Division of Natural Heritage • Virginia Department of Environmental Quality • VIMS Center for Coastal Resources Management • VIMS Department of Physical Sciences • Chesapeake Bay NERR (MD) • The Campbell Foundation • NOAA Chesapeake Bay Office • NOAA Restoration Center • North Carolina Department of Forestry • Virginia Marine Resources Commission
Elkhorn Slough NERR	<ul style="list-style-type: none"> • The Santa Cruz County (CA) Resource Conservation District • The University of California Cooperative Extension • WSP Environment and Energy
Grand Bay NERR	<ul style="list-style-type: none"> • Mississippi Department of Marine Resources • Association of State Floodplain Managers • Southeast Watershed Forum • Mississippi Emergency Management Agency • Mississippi Department of Environmental Quality • NOAA's Coastal Services Center
Great Bay NERR	<ul style="list-style-type: none"> • New Hampshire Department of Environmental Services • Rockingham Planning Commission • Strafford Planning Commission • University of New Hampshire Stormwater Center • University of New Hampshire Cooperative Extension • City of Portsmouth, NH • Hodgson Brook Advisory Committee • Great Bay Stewards • Jacque Cousteau NERR • Wells NERR • Vanasse Hangen Brustlin Inc. • Carbon Coalition Community Energy Committee • New Hampshire Coastal Program • University of New Hampshire Sea Grant • New Hampshire Estuaries Project
Guana Tolomato Matanzas NERR	<ul style="list-style-type: none"> • NOAA CSC • Habitat Conservation • NOAA Restoration Center Community • Florida Department of Environmental Protection • Florida Coastal Management Program

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NERRS Coastal Training Program Key Partners Fiscal Year 2007	
	<ul style="list-style-type: none"> • Florida Fish and Wildlife Conservation Commission • U.S. Fish and Wildlife Service Coastal Program • Florida Inland Navigation District • St. Johns River Water Management District • The Nature Conservancy • St. Augustine, Ponte Vedra & The Beaches Visitors Bureau • Jacksonville & Beaches Convention and Visitors Bureau, and the Jacksonville Hotel & Motel Association • The Florida Department of Environmental Protection's Florida Green Lodging Program • DYNAMAC Corp (DYNAMAC Corp holds a CICEET grant) • St. Augustine Lighthouse • St. Augustine Lighthouse Archaeological and Maritime Program • Florida Public Archaeological Network • St. Augustine Archaeological Association • First Coast Manufacturer's Association • Florida Department of Environmental Protection • International Visitor Corps of Jacksonville • St. Johns River Water Management District
Hudson River NERR	<ul style="list-style-type: none"> • Cary Institute of Ecosystems Studies • Cornell Cooperative Extension • GeesePeace, Inc. • Hudson River Valley Greenway • Hudson River Watershed Alliance • Mile-a-Minute Project of the Hudson Valley • New England Interstate Water Pollution Control Commission • New York State Department of Environmental Conservation (DEC) • New York State DEC, Hudson River Estuary Program • New York State DEC, Division of Water, Bureau of Flood Protection and Dam Safety • New York State Office of Parks, Recreation and Historic Preservation • NOAA's Coastal Services Center • New York State Department of State: Coastal Resources Division, New York Sea Grant, Palisades Interstate Parks Commission Partnerships for Regional Invasive Species Management (PRISM) - Lower Hudson Sustainable Hudson Valley • The Nature Conservancy • U.S. Fish and Wildlife Service
Jacques Cousteau NERR	<ul style="list-style-type: none"> • Barnegat Bay National Estuary Program • New Jersey Department of Community Affairs • Ocean County, New Jersey Planning Department • Ocean County, New Jersey Soil Conservation District • New Jersey Department of Environmental Protection
Jobos Bay NERR	<ul style="list-style-type: none"> • Department of Natural and Environmental Resources • University of Puerto Rico Sea Grant College Program • Puerto Rico Coastal Zone Management Program

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Kachemak Bay NERR	<ul style="list-style-type: none"> • Alaska Department of Natural Resources, Division of Ocean and Coastal Management • Alaska Department of Commerce, Community and Economic Development • Alaska Department of Fish and Game • Alaska Ocean Observing System • Environmental Protection Agency • Kenai Peninsula Borough • Kenai River Center
Narragansett Bay NERR	<ul style="list-style-type: none"> • Rhode Island Department of Environmental Management • Grow Smart Rhode Island • Prudence Island Conservancy • Prudence Island Planning Commission • Prudence Island Water District • Rhode Island Coastal Resources Management Council • Rhode Island Sea Grant • Narragansett Bay Estuary Program • Rhode Island Land Trust Council
North Carolina NERR	<ul style="list-style-type: none"> • North Carolina Cooperative Extension • Carteret Community College • Carteret County Shore Protection Office • University of North Carolina-Chapel Hill Grant Source Library • North Carolina Division of Coastal Management • NOAA Center for Sponsored Coastal Ocean Research
North Inlet-Winyah Bay NERR	<ul style="list-style-type: none"> • Coastal Carolina University • ACE Basin NERR • University of South Carolina • Clemson University Cooperative Extension • South Carolina Department of Natural Resources • South Carolina Sea Grant Consortium
Old Woman Creek NERR	<ul style="list-style-type: none"> • Ohio Coastal Management Program • Ohio Sea Grant College Program • Ohio Lake Erie Commission • NOAA Coastal Service Center • Ohio Environmental Council • Erie Soil and Water Conservation District • Ohio State University Extension • Tinkers Creek Watershed Partners • Chagrin River Watershed Partners • Pennsylvania Sea Grant College Program
Padilla Bay NERR	<ul style="list-style-type: none"> • Washington Sea Grant • Washington Department of Ecology • Washington Department of Community Trade and Economic Development • Washington Department of Fish and Wildlife • City of Vancouver, Washington • City of Tacoma, Washington

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Rookery Bay NERR	<ul style="list-style-type: none"> • City of Naples, FL • Lee County, Florida Parks and Recreation Department • Marine Industries Association of Collier County, FL • Marine Industries Association of Lee County, FL • Society for Ethical Ecotourism of SWFL (non-profit) • Florida American Planning Association • University of Florida/Collier County, FL Institute of Food and Agricultural Services • Soil and Water Conservation District's Mobile Irrigation Lab • Collier County, FL Stormwater Department • Panther National Wildlife Refuge • City of Marco Island, FL • Marco Association of Realtors • South Florida Water Management District • Audubon of Florida • Florida Department of Environmental Protection's Nonpoint Source Management Program & Regulatory Office • Leave No Trace School of Outdoor Ethics • NOAA • Florida Fish and Wildlife Conservation Commission • Collier County, FL Sea Grant • Florida Gulf Coast University • MOTE Marine Laboratory (non-profit)
Sapelo Island NERR	<ul style="list-style-type: none"> • Georgia Department of Natural Resources' Environmental Protection, Division Wildlife Resources, Division and Coastal Management Programs • Regional Reserves from South Carolina and North Carolina • University of Georgia Marine Extension Service • SE Diamondback Terrapin Working Group • Jekyll Island Authority • City of Darien, GA • Coastal Wildscapes • The Nature Conservancy • Savannah Metropolitan Planning Commission
South Slough NERR	<ul style="list-style-type: none"> • Coos Watershed Association • Southwest Oregon Community College • Oregon Coastal Environments Learning Center • Oregon Coastal Management Program • Oregon Department of Fish and Wildlife • NOAA Coastal Services Center • Oregon Institute of Marine Biology • Oregon State University Extension Service

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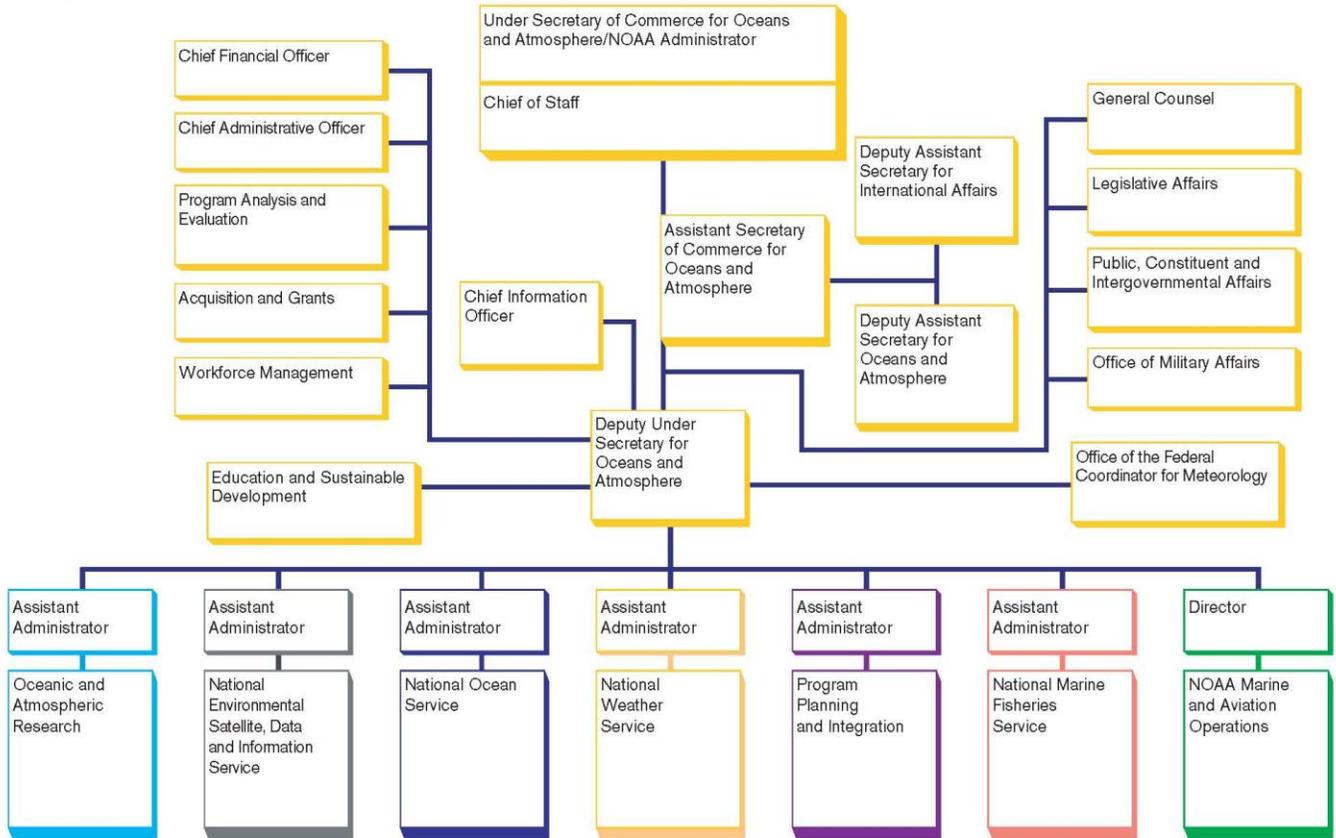
NERRS Coastal Training Program Key Partners Fiscal Year 2007	
Tijuana River NERR	<ul style="list-style-type: none"> • U.S. Environmental Protection Agency Region 9, Water Program • U.S. Environmental Protection Agency Regional Border Office • University of California, San Diego, Urban Studies and Planning Program • California Environmental Protection Agency • California Biodiversity Council • City of Imperial Beach, CA • San Diego State University, Geography Department • International Community Foundation • California Coastal Conservancy • Southern California Wetlands Recovery Project • Engineers Without Borders, San Diego Professional Chapter • Wild Coast • Aquatic Adventures • Coastkeepers
Waquoit Bay NERR	<ul style="list-style-type: none"> • Woods Hole Sea Grant Program • Massachusetts Office of Coastal Zone Management • Massachusetts Department of Conservation and Recreation • Citizens for the Protection of Waquoit Bay • Cape and Islands Renewable Energy Collaborative • Massachusetts Association of Conservation Commissions • Cape Cod Commission • Cape Cod Economic Development Council • NOAA Coastal Services Center • Cape Cod Water Protection Collaborative • Association to Preserve Cape Cod • Barnstable County, MA Department of Health and the Environment
Weeks Bay NERR	<ul style="list-style-type: none"> • Alabama Department of Conservation and Natural Resources • Alabama Coastal Foundation • Auburn University Marine Extension and Research Center • Mobile Bay National Estuary Program • Grand Bay National Estuarine Research Reserve • Baldwin County Soil and Water Conservation District • Weeks Bay Foundation • Mississippi/Alabama Sea Grant • Alabama Department of Environmental Management • Coastal Alabama Clean Water Partnership
Wells NERR	<ul style="list-style-type: none"> • Maine Sea Grant • Maine Coastal Program • Maine NEMO • Southern Maine Regional Planning Commission • University of New England • Towns of Kennebunk, Wells, Sanford, Kennebunkport, York, Kittery, Eliot and South Berwick, ME • CICEET NOAA Coastal Services Center

Appendix C

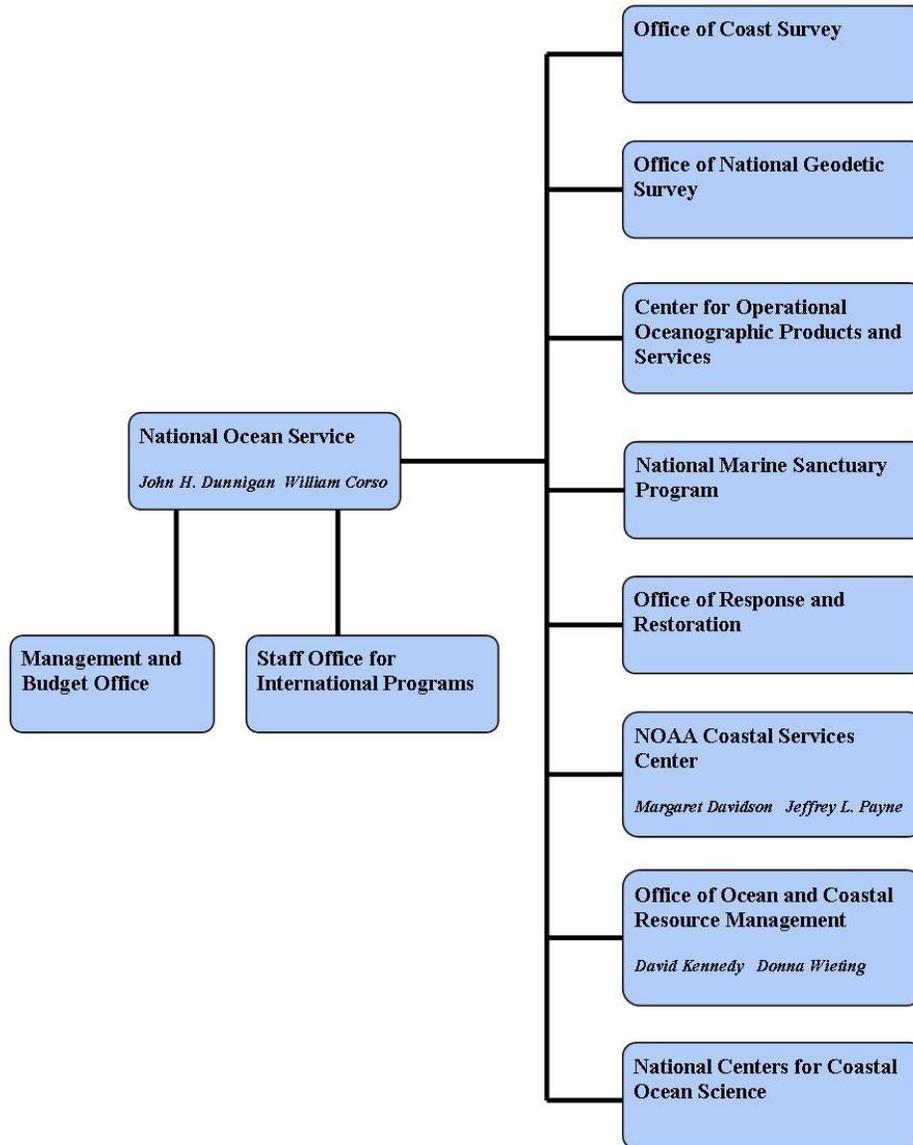
NOAA, NOS, and CSC Organizational Charts



NOAA Organization

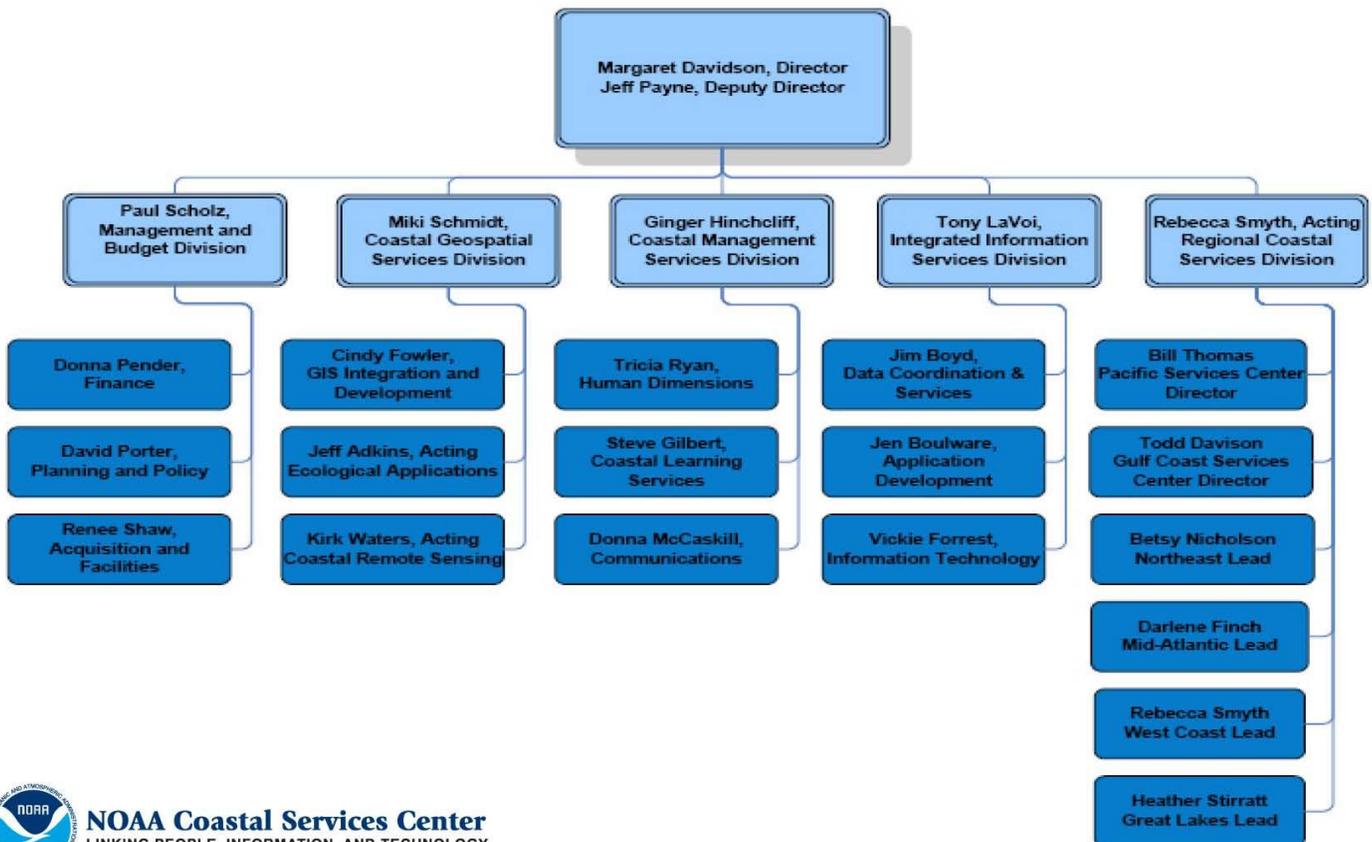


National Ocean Service Organization Chart



NOAA Coastal Services Center

Current as of July 2008



NOAA Coastal Services Center
LINKING PEOPLE, INFORMATION, AND TECHNOLOGY