#### **Legislative Oversight Committee**

South Carolina House of Representatives
Post Office Box 11867
Columbia, South Carolina 29211

Telephone: (803) 212-6810 • Fax: (803) 212-6811



# 2016 Annual Restructuring Report Guidelines

#### **PLEASE NOTE:**

The information included in the agency's report will appear online for all legislators and the public to view.

Agency Name: South Carolina Sea Grant Consortium

Date Report Submitted: **January 12, 2016** 

Agency Head

First Name

M. Richard "Rick"

Last Name: DeVoe

Email Address: <a href="mailto:rick.devoe@scseagrant.org">rick.devoe@scseagrant.org</a>

Phone Number: 843-953-2078

### **General Instructions**

SUBMISSIONS		
What to submit?	Please submit this document in electronically only in both the original format (Excel) as well as in a	
	PDF document. Save the document as "2016 - Agency ARR (insert date agency submits report )."	
When to submit?	The deadline for submission is by the first day of session, January 12, 2016.	
Where to submit?	Email all electronic copies to HCommLegOv@schouse.gov.	

NOTE: If the agency enters its Name and the Date of Submission in the "Cover Page" tab, it should automatically populate at the top of each tab in this report.

WHERE INFORMATION WILL APPEAR	
Where will submissions appear?	The information included in the agency's report will appear online for all legislators and the public
	to view. On the South Carolina Statehouse Website it will appear on the Publications page as well as on the individual agency page, which can be accessed from the House Legislative Oversight Page.

QUESTIONS	
Who to contact?	House Legislative Oversight at 803-212-6810.

OTHER INFORMATION					
	House Legislative Oversight				
Mailing	Post Office Box 11867				
Phone	803-212-6810				
Fax	803-212-6811				
Email	HCommLegOv@schouse.gov_				
Web	The agency may visit the South Carolina General Assembly Home Page				
	(http://www.scstatehouse.gov) and click on "Citizens' Interest" then click on "House Legislative				
	Oversight Committee Postings and Reports."				

### **Legal Standards**

This is the first chart in the report because the legal standards which apply to the agency should serve as the basis for the agency's mission, vision and strategic plan.

Agency Responding	South Carolina Sea Grant Consortium
Date of Submission	12-Jan-16

Instructions: List all state and federal statutes, regulations and provisos that apply to the agency ("Laws") and a summary of the statutory requirement and/or authority granted in the particular Law listed. If the agency grouped Laws together last year, they can continue to do so this year. However, please be aware that when the agency goes under study, the House Legislative Oversight Committee will ask it to list each Law individually. The Committee makes this request so the agency can then analyze each of the Laws to determine which current Laws may need to be modified or eliminated, as well as any new Laws possibly needed, to allow the agency to be more effective and efficient or to ensure the Law matches current practices and systems. Included below is an example, with a partial list of Laws which apply to the Department of Juvenile Justice. Please delete the example information before submitting this chart in final form. NOTE: Responses are not limited to the number of rows below that have borders around them, please list all that are applicable.

Item #	Statute, Regulation, or Proviso Number	State or Federal	Summary of Statutory Requirement and/or Authority Granted	Is the law a Statute, Proviso or Regulation?
1	Code of South Carolina: Title 48, Chapter 45, Section 48-45-10 et seg. (1978 Act No. 643, as amended)	State	The principal purpose of the consortium is to provide a mechanism for the development and management of the Sea Grant Program for South Carolina and adjacent regions that share a common environment and resource heritage. The consortium serves to support, improve, and share research, education, training, and advisory services in fields related to ocean and coastal resources. The consortium further encourages and follows a regional approach to solving problems or meeting needs relating to ocean and coastal resources in cooperation with appropriate institutions, programs, and persons in the region.	Statute
2	Proviso 38.1	State	Allows the agency to use funds that are generated by the sale of pamphlets, books, and other promotional materials, the production of which has been paid for by non-state funding, as other funds for the purchase of additional pamphlets, books, and other promotional materials for distribution to the public.	Proviso

## **Legal Standards**

3	U.S. Code, Title 33,	Federal	This legislation authorizes the establishment and operation of sea grant colleges and	Statute
	Section 1121 et seg.		programs by initiating and supporting programs of education and research in the various	
	(National Sea Grant		fields relating to the development of marine resources, and for other purposes. There	
	College and Program		are presently 33 Sea Grant College Programs in the United States.	
	Act of 1966, as			
	amended).			

### Mission, Vision and Goals

This is the second chart because the agency's mission and vision should have a basis in the legal standards, which the agency provided in the previous chart. After the agency knows the laws it must satisfy, along with its mission and vision, it can then set goals to satisfy those laws and achieve that vision (and the strategy and objectives to accomplish each goal - see next chart). To ensure accountability, one person below the head of the agency should be responsible for each goal. The same person is not required to be responsible for all of the goals.

Agency Responding	South Carolina Sea Grant Consortium
Date of Submission	12-Jan-16
Fiscal Year for which information	2015-16
below pertains	
1	

Instructions: Provide the agency's mission, vision and laws (i.e. state and/or federal statutes) which serve as the basis for the agency's mission and vision.

	"South Carolina Sea Grant Consortium generates and provides science-based information to enhance the practical use and conservation of coastal and marine resources that fosters a sustainable economy and environment for the state of South Carolina and its citizens."
	Adapted from Code of South Carolina: Title 48, Chapter 45, Section 48-45-10 et seg. (1978 Act No. 643, as amended, and U.S. Code, Title 33, Section 1121 et seg. (National Sea Grant College and Program Act of 1966, as amended).
	The South Carolina Sea Grant Consortium is: (1) The best Sea Grant College Program in the Nation and (2) One of the most efficiently and effectively managed State (South Carolina) agencies.
Legal Basis for agency's vision	N/A; taken from agency's formally approved FY2014-17 Strategic Plan

#### *Instructions*:

- 1) Under the "Legal Responsibilities Satisfied" column, enter the legal responsibilities (i.e. state and/or federal statutes and provisos) the goal is satisfying. All of the laws mentioned in the previous chart (i.e. Legal Standards Chart) should be included next to one of the agency's goals. When listing the Legal Responsibilities Satisfied, the agency can group the standards together when applicable (i.e. SC Code 63-19-320 thru 63-19-450). Make sure it is clear whether the agency is referencing state or federal laws and whether it is a proviso or statute.
- 2) Under the "Goals and Description" column, enter the number and description of the goal which will help the agency achieve its vision (i.e. Goal 1 Increase the number of job opportunities available to juveniles to 20 per juvenile within the next 2 years). The agency should have 3-4 high level goals.
- 3) Under the "Describe how the Goal is SMART" column, enter the information which shows the goal is Specific, Measurable, Attainable, Relevant and Time-bound.
- 4) Under the "Public Benefit/Intended Outcome" column, enter the intended outcome of accomplishing the goal.
- 5) Under the "Responsible Person" columns, provide information about the individual who has primary responsibility/accountability for each goal. The Responsible Person has different teams of employees beneath him/her to help accomplish the goal. The Responsible Person is the person who, in conjunction with his/her team(s) and approval from higher level superiors, determines the strategy and objectives to accomplish the goal. In addition, this is the person who monitors the progress and makes any changes needed to the strategies and objectives to ensure the goal is accomplished. Under the "Position" column, enter the Responsible Person's position/title at the agency.

Legal Responsibilities Satisfied	Goals & Description	Describe how the Goal is S.M.A.R.T.	Public Benefit/Intended Outcome		Number of	
(i.e. state and federal statutes or provisos the goal is satisfying)			(Ex. Output = rumble strips are installed on the sides of a road; Outcome = incidents decrease and public perceives that the road is safer) Just enter the intended outcome	Responsible	months person has been responsible for the goal or objective:	Position:

## Mission, Vision and Goals

Code of South Carolina: Title 48, Chapter 45, Section 48-45-10 et seg. (1978 Act No. 643, as amended); U.S. Code, Title 33, Section 1121 et seg. (National Sea Grant College and Program Act of 1966, as amended).	Goal 1: Planning, Program Management, and Overall Performance: Annually support effective planning, financing, and performance efforts to meet the mission and programmatic goals of the Consortium	Implement ongoing planning activities and an efficient administrative and management system which supports the Consortium's programmatic themes; Develop, maintain, and enhance the Consortium's funding levels and financial and reporting system to support the programmatic goals of the research, education, extension, and communications programs of the Consortium	* Strong short- and long-term planning is conducted by agency Core Group with support of the Consortium Program Advisory Board, extension specialist advisory committees, and other user input.  * Viable research and education programs which meet constituent needs are funded through the Consortium.  * Increased levels of both state and non-state financial support to further the Consortium's program goals are obtained.  * A strong and diverse funding base to support Consortium programs, activities, and administrative needs is established.  * Sound fiscal practices are maintained and statewide single agency audits will have no significant findings.  * Annual state and federal accountability reports will document the agency's performance.  * The Consortium will be rated as one of the highest performing Sea Grant College Programs in the nation.			Executive Director
Code of South Carolina: Title 48, Chapter 45, Section 48-45-10 et seg. (1978 Act No. 643, as amended); U.S. Code, Title 33, Section 1121 et seg. (National Sea Grant College and Program Act of 1966, as amended)	Goal 2: Connecting with Users - Needs of the Consortium's diverse constituencies throughout the state and region are well-documented and addressed	identified; Ensure that Consortium programs are effective in providing the necessary science-based information and that this	* The problems and needs of those who live and work along the coast are accurately identified. * Consortium is partnering with a diverse group of organizations, institutions, and individuals. * Consortium demonstrates leadership and catalytic roles in addressing and resolving coastal and ocean resource issues. * Consortium information is delivered to target audiences in a timely fashion and user-friendly formats. * The demand for the Consortium's publications is increased. * High quality scientific and outreach publications are produced. * Consortium Web site continues to be a significant source of coastal and ocean information. * Volunteers are engaged in Consortium stewardship activities, including Beach Sweep River Sweep. * Consortium activities are covered in mass media outlets.	M. Richard DeVoe	since 1997	Executive Director
Code of South Carolina: Title 48, Chapter 45, Section 48-45-10 et seg. (1978 Act No. 643, as amended); U.S. Code, Title 33, Section 1121 et seg. (National Sea Grant College and Program Act of 1966, as amended)		Encourage an "environment of excellence" to maintain and hire talented staff and support the development of professional and other skills among the Consortium staff in partnership with other agencies and professional organizations	* Staff retention is high.  * Staff are well-trained and engaged in internal and external agency activities.  * Staff assume leadership roles within relevant professional institutions and organizations.  * Staff are regionally and nationally recognized by peers and professional organizations.	M. Richard DeVoe	since 1997	Executive Director

This is the next chart because once the agency determines its goals, and those responsible for each goal, it then needs to determine the strategy and objectives to accomplish each goal. To ensure accountability, one person should be responsible for each objective. This can be the same person responsible for the goal, if it is a small agency, or, for larger agencies, a person who reports to the person responsible for the goal. The same person is not required to be responsible for all of the objectives.

Agency Responding	South Carolina Sea Grant Consortium
Date of Submission	12-Jan-16
Date of Submission	12 3411 10
	2045 46
Fiscal Year for which information below pertains	2015-16

#### <u>Instructions</u> :

1) Under the "Legal Responsibilities Satisfied" column, enter the legal responsibilities (i.e. state and/or federal statutes and provisos) the goal or objective is satisfying. For each goal, the agency can copy and paste the information from the Mission, Vision and Goals Chart. All of the legal standards mentioned for a particular goal should be included next to one of the objectives under that goal. When listing the Legal Responsibilities Satisfied, the agency can group the standards together when applicable (i.e. 63-19-320 thru 63-19-370). Make sure it is clear whether the agency is referencing state or federal laws and whether it is a proviso or statute.

2) Under the "Strategic Plan Part and Description" column, enter the strategic plan part number and description (i.e. Goal 1 - Increase the number of job opportunities available to juveniles to 20 per juvenile within the next 2 years). For each goal, the agency can copy and paste the information from the Mission, Vision and Goals Chart. If the agency is still utilizing the same strategies and objectives it submitted as part of the Accountability Report, it can copy and paste those into this chart, then fill in the remainder of the columns. However, if the agency has trouble explaining how each objective is SMART, it may need to revise its objectives. In addition, if the agency has revised its strategic plan since submitting its last Accountability Report, please provide information from the most current strategic plan.

Legal Responsibilities	Strategic Plan Part and Description	How it is S.M.A.R.T.:	Public Benefit/Intended Outcome:						
(i.e. state and federal statutes or provisos the goal or objective is satisfying)	(i.e. Goal 1 - Insert description, Strategy 1.1 - Insert Description, Objective 1.1.1 - Insert Description)	Describe how each goal and objective is <u>S</u> pecific; <u>M</u> easurable; <u>A</u> ttainable; <u>R</u> elevant; and <u>T</u> ime-bound	(Ex. Output = rumble strips are installed on the sides of a road; Outcome = incidents decrease and public perceives that the road is safer) Just enter the intended outcome	Responsible Person Name:	Number of months person has been responsible for the goal or objective:	Position:	Office Address:	Department or Division:	Department or Division Summary:
Title 48, Chapter 45,	Goal 1-Planning, Program Management, and Overall Performance: Annually support effective planning, financing, and performance efforts to meet the mission and programmatic goals of the Consortium	attributes with its Strategic Program Goals,	In its 2014-17 Strategic Plan, the Consortium associates Outcomes with its Strategic Program Goals, not its individual Program Objectives. These Outcomes are presented in the Mission, Vision, and Goals tab.	M. Richard DeVoe	since 1997		287 Meeting Street, Charleston, SC 29401	N/A	N/A
OF 1900. AS AMERIQUES -	1.1-Implement ongoing planning activities and an efficient administrative and management system which supports the Consortium's programmatic themes			M. Richard DeVoe	since 1997		287 Meeting Street, Charleston, SC 29401	N/A	N/A
	1.1.1-Identify and assess programmatic focus areas by engaging at least 200 stakeholders from state and federal agencies, universities and colleges, nongovernmental organizations, and the private sector annually			M. Richard DeVoe	since 1997		287 Meeting Street, Charleston, SC 29401	N/A	N/A
	1.1.2-Assess and update the Consortium's strategic plan based on input from five extension advisory board meetings and targeted outreach to partner organizations by October 2016			M. Richard DeVoe	since 1997		287 Meeting Street, Charleston, SC 29401	N/A	N/A

1.1.3-Annually engage the Consortium's 30-member		M. Richard DeVoe sinc	ce 1997	Executive Director	287 Meeting	N/A	N/A
Program Advisory Board in setting overall program		W. Menara De voc	CC 1337	Exceditive Director	Street, Charleston,	111/74	
priorities and developing strategies for program					SC 29401		
development					30 23401		
development							
1.1.4-Maintain monthly communications with the		M. Richard DeVoe sinc	ce 1997	Executive Director	287 Meeting	N/A	N/A
Consortium's liaisons at the university levels to					Street, Charleston,		
promote open and viable interaction between					SC 29401		
university officials and faculty and Consortium staff							
1.15.14.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.		MA D' L LD M	1007	F 51	207.14	N1 / A	N1 / A
1.1.5-Maintain a rigorous technical peer review		M. Richard DeVoe sinc	ce 1997	Executive Director	287 Meeting	N/A	N/A
process for all competitive research, education, and					Street, Charleston,		
outreach proposals received by the agency by					SC 29401		
securing a minimum of four impartial reviews for							
each proposal received							
1.1.6-Continue the ongoing activities of the		M. Richard DeVoe sinc	ce 1997	Executive Director	287 Meeting	N/A	N/A
		IVI. Michard Devoe Sinc	te 1557	LACCULIVE DIFECTOR			IN/A
Consortium management team (Core Group) to					Street, Charleston,		
facilitate communication and information exchange					SC 29401		
to set the agency's short- and long-term directions							
through bimonthly team meetings							
1.2-Develop, maintain, and enhance the		M. Richard DeVoe sinc	ce 1997	Executive Director	287 Meeting	N/A	N/A
Consortium's funding levels and financial and					Street, Charleston,		
reporting system to support the programmatic					SC 29401		
goals of the research, education, extension, and					33 23 101		
communications programs of the Consortium							
communications programs of the Consolitum							
4.2.4.4.11		NA D' 1 15 11	1007	F 5.	20714	N1 / A	N. / A
1.2.1-Adhere to Consortium Board and State		M. Richard DeVoe sinc	ce 1997	Executive Director	287 Meeting	N/A	N/A
leadership directives to maintain and, where					Street, Charleston,		
possible, enhance state funding					SC 29401		
1.2.2-Secure extramural funding of \$2,000,000		M. Richard DeVoe sinc	ce 1997	Executive Director	287 Meeting	N/A	N/A
annually in support of Consortium programs and		THE MICHAEL STILL		LACOULTYC DITCCLOT	Street, Charleston,	. 1// 1	
activities to benefit the citizens and state of South					SC 29401		
Carolina							

4 0 0 0 1 1 4 5 0 0 0 0 1						007.1	N. / A	11/1
			M. Richard DeVoe	since 1997	Executive Director	_		N/A
1.2.4-Ensure that the Consortium's accounting and fiscal management procedures meet or exceed federal, state, and local policies, regulations, and guidelines through annual outside review			M. Richard DeVoe	since 1997	Executive Director	<u> </u>	· ·	N/A
1.2.5-Develop and implement a Sea Grant Networkwide Web-based management information system (eSeaGrant) to track program progress and document performance by June 2016			M. Richard DeVoe	since 1997	Executive Director			N/A
1.2.6-Prepare State Accountability and National Sea Grant Reports on an annual basis			M. Richard DeVoe	since 1997	Executive Director	287 Meeting Street, Charleston, SC 29401		N/A
1.2.7-Ensure that the most current software and equipment are used to enhance efficient operations			M. Richard DeVoe	since 1997	Executive Director	287 Meeting Street, Charleston, SC 29401		N/A
1.2.8-Prepare for the quadrennial external National Sea Grant Program Assessment review in September 2015			M. Richard DeVoe	since 1997	Executive Director	287 Meeting Street, Charleston, SC 29401		N/A
Consortium's diverse constituencies throughout the state and region are well-documented and addressed	Consortium associates its SMART attributes with its Strategic Program Goals, not its individual Program Objectives. These attributes are presented in the	individual Program Objectives. These		since 1997	Executive Director			N/A
	1.2.4-Ensure that the Consortium's accounting and fiscal management procedures meet or exceed federal, state, and local policies, regulations, and guidelines through annual outside review  1.2.5-Develop and implement a Sea Grant Networkwide Web-based management information system (eSeaGrant) to track program progress and document performance by June 2016  1.2.6-Prepare State Accountability and National Sea Grant Reports on an annual basis  1.2.7-Ensure that the most current software and equipment are used to enhance efficient operations  1.2.8-Prepare for the quadrennial external National Sea Grant Program Assessment review in September 2015  Goal 2-Connecting with Users - Needs of the Consortium's diverse constituencies throughout the state and region are well-documented and addressed	1.2.4-Ensure that the Consortium's accounting and fiscal management procedures meet or exceed federal, state, and local policies, regulations, and guidelines through annual outside review  1.2.5-Develop and implement a Sea Grant Networkwide Web-based management information system (eSeaGrant) to track program progress and document performance by June 2016  1.2.6-Prepare State Accountability and National Sea Grant Reports on an annual basis  1.2.7-Ensure that the most current software and equipment are used to enhance efficient operations  1.2.8-Prepare for the quadrennial external National Sea Grant Program Assessment review in September 2015  Goal 2-Connecting with Users - Needs of the Consortium's diverse constituencies throughout the state and region are well-documented and attributes with its Strategic Plan, the Consortium's diverse constituencies throughout the state and region are well-documented and	1.2.4-Ensure that the Consortium's accounting and flass immagnment procedures meet or exceed federal, state, and local polices, regulations, and guidelines through annual outside review  1.2.5-Develop and implement a Sea Crant Networkwide Web-based management information system teseofority to track program progress and document performance by June 2015.  1.2.6-Prepare State Accountability and National Sea Grant Reports on an annual basis  1.2.7-Ensure that the most current software and tepionment are used to enhance efficient operations described in the state and region are well-documented and software software and tepionment are used to enhance efficient operations sea Grant Program Assessment review in September 2015.  Goal 2-Connecting with Users - Needs of the Consortium's diverse constituences throughout this state and region are well-documented and addressed.  In its CP14-17 Strategic Plan, the Consortium's Assessment review in September 2015. To Strategic Plan, the Consortium's diverse constituences throughout this state and region are well-documented and addressed.  In its CP14-17 Strategic Plan, the Consortium's Assessment review in September 2015. To Strategic Plan, the Consortium's diverse constituences throughout this state and region are well-documented and addressed.	L2.4-Ensure that the Consortium's accounting and local management above conceed sections of the Consortium's accounting and local management accounting and local management accounting and local management accounting and local management above conceed sections, care, and local pointer, organizations, and guidelines through annual outside review.  1.2.5-Section and Implement a base Crisin Network with the Consortium and Internation accounting and management accounting accounting and management accounting	D2.4 House that the Consortium's accounting and fiscal management procedures mean or exceed fiscal management procedures and discussment performances by time 2016  1.2.5 Prepare state Accountability and National Sea Const Reports on an annual basis.  1.2.6 Prepare state Accountability and National Sea Const Reports on an annual basis.  1.2.6 Prepare state Accountability and National Sea Const Reports on an annual basis.  1.2.6 Prepare for the quadrennal external National Sea Const Reports on an annual basis.  1.2.6 Prepare for the quadrennal external National Sea Const Reports on an annual basis.  1.3.7 Prepare for the quadrennal external National Sea Constraint Sea	Authorition annual bear particles annually  1.2.4-bit starte that the Consortium's accounting and flaur insurgement procedures need to exceed the flaur insurance of the flau	Additional consecutions around the Consecution and Section 19 and	And the control and some control when successfully

2.1	Engine that icours and manda of these who live		NA Dieberd DeVes	air an 1007	Eve systims Dissertes	207 Manting	NI /A	N1 / A
	-Ensure that issues and needs of those who live discourant work along the coast are accurately identified		M. Richard DeVoe	since 1997	Executive Director	287 Meeting Street, Charleston, SC 29401	N/A	N/A
coas thro	1-Engage constituents in the identification of stal and marine resource issues and needs ough a range of activities such as surveys and ividual contact on a biennial basis		M. Richard DeVoe	since 1997	Executive Director	287 Meeting Street, Charleston, SC 29401	N/A	N/A
	2-Annually seek programmatic guidance from extension specialist advisory committees		M. Richard DeVoe	since 1997	Executive Director	287 Meeting Street, Charleston, SC 29401	N/A	N/A
	.3-Seek programmatic guidance from ad hoc gram area advisory groups		M. Richard DeVoe	since 1997	Executive Director	287 Meeting Street, Charleston, SC 29401	N/A	N/A
fede	.4-Maintain and expand partnerships with eral, state and local governments, business and ustry, non-Consortium universities, and NGOs		M. Richard DeVoe	since 1997	Executive Director	287 Meeting Street, Charleston, SC 29401	N/A	N/A
in pr info targ	-Ensure that Consortium programs are effective providing the necessary science-based primation and that this information is delivered to get audiences in a timely fashion and appropriate mats		M. Richard DeVoe	since 1997	Executive Director	287 Meeting Street, Charleston, SC 29401	N/A	N/A
Coas issue	1-Produce and distribute quarterly issues of astal Heritage magazine, which covers relevant ues pertaining to coastal- and marine-resource icy, science, and history		M. Richard DeVoe	since 1997	Executive Director	287 Meeting Street, Charleston, SC 29401	N/A	N/A

				1			
2.2.2-Enhance the knowledge and awareness of coastal residents and visitors on the value of coastal and ocean resources through Consortium		M. Richard DeVoe	since 1997	Executive Director	287 Meeting Street, Charleston, SC 29401	N/A	N/A
communications efforts through 2,500 publication distributions and 200,000 web site visits					30 23 101		
2.2.3-Serve as the co-coordinators of the annual S.C.		M. Richard DeVoe	since 1997	Executive Director	287 Meeting	N/A	N/A
Beach Sweep/River Sweep litter cleanup program with the S.C. Department of Natural Resources to engage 100 site coordinators, clean 125 coastal locations, and engage 16,000 coastal volunteers					Street, Charleston, SC 29401		
2.2.4-Publicize Consortium-funded research, education, and outreach through 950 print, broadcast, electronic, and web-based media placements		M. Richard DeVoe	since 1997	Executive Director	287 Meeting Street, Charleston, SC 29401	N/A	N/A
2.2.5-Regularly maintain and enhance the information on the Consortium Web site and ancillary Web sites		M. Richard DeVoe	since 1997	Executive Director	287 Meeting Street, Charleston, SC 29401	N/A	N/A
2.2.6-Produce and distribute electronic and hard copy publications and products, targeted to constituent needs		M. Richard DeVoe	since 1997	Executive Director	287 Meeting Street, Charleston, SC 29401	N/A	N/A
2.2.7-Engage community volunteers in Consortium outreach activities		M. Richard DeVoe	since 1997	Executive Director	287 Meeting Street, Charleston, SC 29401	N/A	N/A
2.2.8-Solicit formal evaluations from at least 50% of Consortium conference and workshop participants		M. Richard DeVoe	since 1997	Executive Director	287 Meeting Street, Charleston, SC 29401	N/A	N/A

2.3-Bring diverse perspectives together to facilitate interactions and discourse on critical coastal and ocean issues			M. Richard DeVoe	since 1997	Executive Director	287 Meeting Street, Charleston, SC 29401	N/A	N/A
2.3.1-Periodically engage constituents in discussions of emerging issues affecting coastal S.C. and the region			M. Richard DeVoe	since 1997	Executive Director	287 Meeting Street, Charleston, SC 29401	N/A	N/A
2.3.2-Coordinate multi-investigator partnerships working together to solve critical resource needs			M. Richard DeVoe	since 1997	Executive Director	287 Meeting Street, Charleston, SC 29401	N/A	N/A
2.3.3-Broker resolutions to resource management questions			M. Richard DeVoe	since 1997	Executive Director	287 Meeting Street, Charleston, SC 29401	N/A	N/A
2.3.4-Provide leadership on committees and other forums that seek to resolve coastal and ocean resource challenges			M. Richard DeVoe	since 1997	Executive Director	287 Meeting Street, Charleston, SC 29401	N/A	N/A
staff	In its FY14-17 Strategic Plan, the Consortium associates its SMART attributes with its Strategic Program Goals, not its individual Program Objectives.	In its 2014-17 Strategic Plan, the Consortium associates Outcomes with its Strategic Program Goals, not its individual Program Objectives. These	M. Richard DeVoe	since 1997	Executive Director	287 Meeting Street, Charleston, SC 29401	N/A	N/A
	These attributes are presented in the Mission, Vision, and Goals tab.	Outcomes are presented in the Mission, Vision, and Goals tab.	M. Richard DeVoe	since 1997	Executive Director	287 Meeting Street, Charleston, SC 29401	N/A	N/A
the Consortium staff in partnership with other agencies and professional organizations								

3.1.1-Hire highly qualified personnel through		M. Richard DeVoe	sinco 1007	Executive Director	297 Mooting	N/A	N/A
broadly distributing position announcements and a		IVI. Michard Devoe	Since 1997	LXECULIVE DIFECTOR	Street, Charleston,		IV/A
rigorous selection process involving staff members					SC 29401		
and partners as appropriate							
3.1.2-Seek partnerships with member organizations		M. Richard DeVoe	since 1997	Executive Director	287 Meeting	N/A	N/A
to jointly support a minimum of three key					Street, Charleston,		
management and/or programmatic staff					SC 29401		
2.1.2 Potain five extension specialist staff to		M. Richard DeVoe	sinco 1007	Executive Director	287 Meeting	N/A	N/A
3.1.3-Retain five extension specialist staff to		IVI. NICHATU DEVOE	SILICE 1337	executive Director		· ·	IV/A
effectively provide science-based information to					Street, Charleston,		
their constituents					SC 29401		
3.1.4-Annually enhance skills, capabilities (including		M. Richard DeVoe	since 1997	Executive Director	287 Meeting	N/A	N/A
the possibility of cross-training), and professional					Street, Charleston,		
development goals of the Consortium staff through					SC 29401		
attendance at workshops, seminars, and					00 20 102		
development events and activities							
development events and activities							
3.1.5-Promote performance excellence through		M. Richard DeVoe	since 1007	Executive Director	287 Meeting	N/A	N/A
		IVI. NICITATU DEVOE	Silice 1997	executive Director		'	IV/A
incentive-based efforts and program competition,					Street, Charleston,		
and encourage staff through staff recognition and					SC 29401		
awards							
3.1.6-Encourage staff to become actively involved in		M. Richard DeVoe	since 1997	Executive Director	287 Meeting	N/A	N/A
professional organizations pertinent to their staff					Street, Charleston,		
positions (e.g., as committee members, elected					SC 29401		
officers)							

### **Associated Programs**

This is the next chart because once the agency has determined its goals, strategies and objectives, the agency needs to determine which of its programs will help achieve those objectives and goals and which programs may need to be curtailed or eliminated. If one program is helping accomplish an objective that a lot of other programs are also helping accomplish, the agency should consider whether the resources needed for that program could be better utilized (i.e. so the agency can most effectively and efficiently accomplish all of its goals and objectives) if they were distributed among the other programs that are helping accomplish the same objective or among programs that are helping accomplish other objectives.

Agency Responding	South Carolina Sea Grant Consortium
Date of Submission	12-Jan-16
Fiscal Year for which information below	2015-16
pertains	

#### <u>Instructions</u> :

- 1) Under the "Name of Agency Program" column, enter the name of every program at the agency on a separate row.
- 2) Under the "Description of Program" column, enter a 1-3 sentence description of the agency program.
- 3) Under the "Legal Statute Requiring Program" column, enter the legal statute which requires (this is different than allows) the program, if the program is required by a state or federal statute or proviso. Make sure it is clear whether the agency is referencing state or federal laws and whether it is a proviso or statute. If the program is not required by a state or federal statute or proviso, enter "none."
- 3) Under the "Objective the Program Helps Accomplish" column, enter the strategic plan objective number and description. The agency can copy the Objective number and description from the first column of the Strategy, Objective and Responsibility Chart. Enter ONLY ONE objective per row. If an agency program helps accomplish multiple objectives, insert additional rows with that agency program information and enter each different objective it helps accomplish on a separate row.

Name of Agency Program	Description of Program	Legal Statute or Proviso Requiring the Program	Objective the Program Helps Accomplish (The agency can copy the Objective number and description from the first column of the Strategy, Objective and Responsibility Chart)  List ONLY ONE strategic objective per row.
I. Administration Ia. Research and Education Ib. Extension Ic. Communications Id. Administration	The principal purpose of the consortium is to provide a mechanism for the development and management of the Sea Grant Program for South Carolina and adjacent regions that share a common environment and resource heritage. The consortium serves to support, improve, and share research, education, training, and advisory services in fields related to ocean and coastal resources.	amended); U.S. Code, Title 33, Section 1121 et seg. (National	1.1.1; 1.1.2; 1.1.3; 1.1.4; 1.1.5; 1.1.6; 1.2.1; 1.2.2; 1.2.3; 1.2.4; 1.2.5; 1.2.6; 1.2.7; 1.2.8; 2.1.1; 2.1.2; 2.1.3; 2.1.4; 2.2.1; 2.2.2; 2.2.3; 2.2.4; 2.2.5; 2.2.6; 2.2.7; 2.2.8; 2.3.1; 2.3.2; 2.3.3; 2.3.4; 3.1.1; 3.1.2; 3.1.3; 3.1.4; 3.1.5; 3.1.6 (All Agency Objectives)

### **Strategic Budgeting**

This is the next chart because once the agency determines its goals, strategies and objectives, as well as the programs that will best allow the agency to accomplish its objectives, the agency needs to determine how to allocate its funds to most effectively and efficiently accomplish the objectives. After allocating the funds to the objectives, the agency may decide to go back and revise which associated programs it will continue, curtail or eliminate in order to most effectively and efficiently accomplish its goals and objectives.

Agency Responding	South Carolina Sea Grant Consortium
Date of Submission	12-Jan-16
Fiscal Year for which	2015-16

IMPORTANT TIME SAVING NOTE: Please note that only one year of budgeted funds is requested. Once an agency is under study with the House Legislative Oversight Committee, the Committee may request information on how the agency budgeted and spent money for the previous five years. If an agency is chosen for study five years from now, the agency can quickly and easily combine the information from this chart for each of the last five years.

#### Part A Instructions: Estimated Funds Available this Fiscal Year (2015-16)

1) Please enter each source of funds for the agency in a separate column. Group the funding sources however is best for the agency (i.e. general appropriation programs, proviso 18.2, proviso 19.3, grant ABC, grant XYZ, Motor Vehicle User Fees, License Fines, etc.) to provide the information requested below each source (i.e. state, other or federal funding; recurring or one-time funding; etc.). The agency is not restricted by the number of columns below so please delete or add as many as needed. However the agency chooses to group its funding sources, it should be clear through Part A and B, how much the agency estimates it has available to spend and where the agency has budgeted the funds it has available to spend.

#### Part B Instructions: How Agency Budgeted Funds this Fiscal Year (2015-16)

- 1) Enter each agency objective and description (i.e. Objective 1.1.1 insert description of objective). The agency can insert as many rows as necessary so that all objectives are included.
- 2) After entering all of the objectives, enter each "unrelated purpose" for which money received by the agency will go (i.e. Unrelated Purpose #1 insert description of unrelated purpose) on a separate row. An "unrelated purpose" is money the agency is legislatively directed to spend on something that is not related to an agency objective (i.e. pass through, carry forward, etc.).
- 3) Enter how much money from each source of funds the agency budgets to spend on each objective and unrelated purpose. The "Total budgeted to spend on objectives and unrelated purposes" for each source of funds in Part B should equal the "Amount estimated to have available to spend this fiscal year" in Part A.

#### Explanations from the Agency regarding Part A:

The S.C. Sea Grant Consortium maintains an annual summary of specific research and outreach competitive grants and cooperative agreements is successfully win, organized by funding source, which can be provided upon request.

PART A
Estimated Funds
Available this
Fiscal Year
(2015-16)

S	ource of Funds:	Totals	Annual State Appropriations	Stormwater Management Program	Annual Other Funds	Annual Federal Funds	
s							
Is	the source state, other or federal funding:	Totals	State Funds	State Funds	Other Funds	Federal Funds	
ls	funding recurring or one-time?	Totals	Recurring	One-time (2014-15 only)	Recurring (Competitive)	Recurring (Competitive)	
\$	From Last Year Available to Spend this Year						
	mount available at end of previous fiscal year		\$96,842	\$100,000	\$245,543	\$2,775,652	
Α	mount available at end of previous fiscal year that agency in actually use this fiscal year:		\$55,929	\$100,000	\$0	\$0	
	the amounts in the two rows above are not the same, explain hy :	Enter explanation for each fund to the right	Limited to a maximum of up to 10% carry-forward from previous Fiscal Year's state appropriations was utilized	N/A	not subject to carry-forward statutes since funds are available only to meet	forward statutes since funds are available only to meet specific project goals;	
\$	Estimated to Receive this Year						
А	mount budgeted/estimated to receive in this fiscal year:		\$609,288	\$0	\$282,000	\$4,550,000	
Т	otal Actually Available this Year						
A (i c	mount estimated to have available to spend this fiscal year e. Amount available at end of previous fiscal year that agency an actually use in this fiscal year PLUS Amount audgeted/estimated to receive this fiscal year):		\$665,217	\$100,000	\$282,000	\$4,550,000	

## Strategic Budgeting

Explanations from the Agency regarding Part B:

The S.C. Sea Grant Consortium maintains an annual summary of specific research and outreach competitive grants and cooperative agreements is successfully win, organized by funding source, which can be provided upon request.

PART B
How Agency
Budgeted Funds
this Fiscal Year
(2015-16)

	<u> </u>	<u></u>					<u> </u>
Source of Funds: (the rows to the left should populate	Totals	Annual State	Stormwater Management	Annual Other Funds	Annual Federal Funds	0	0
automatically from what the agency entered in Part A)		Appropriations	Program				
S S							
Is source state, other or federal funding: (the rows to the left	Totals	State Funds	State Funds	Other Funds	Federal Funds	0	0
should populate automatically from what the agency entered in							
Part A)							
Restrictions on how agency is able to spend the funds from this	n/a	Restrictions enforced by	Restrictions specific to	Restrictions specific to	As specified in our federal		
source:		legislation regarding State	special project per General	revenue sources (non-state,	agreement by the		
		Appropriations	Proviso 118.16 in FY2014-	non-federal)	awarding entity		
			15				
Amount estimated to have available to spend this fiscal year:	\$0	\$665,217	\$100,000	\$282,000	\$4,550,000	\$0	\$0
(the rows to the left should populate automatically from what							
the agency entered in Part A)							
Are expenditure of funds tracked through SCEIS? (if no, state the	n/2	Yes	Yes	Yes	Yes		
system through which they are recorded so the total amount of	i i y a	163	163	163	163		
expenditures could be verified, if needed)							
· · · ·							
Where Agency Budgeted to Spend Money this Year							
Objective 1.1.1 - insert description of objective:		1.1.1; 1.1.2; 1.1.3; 1.1.4;	1.1.1; 1.1.2; 1.1.3; 1.1.4;	1.1.1; 1.1.2; 1.1.3; 1.1.4;	1.1.1; 1.1.2; 1.1.3; 1.1.4;		
**Remember to include a colon (:) at the end of each objective		1.1.5; 1.1.6; 1.2.1; 1.2.2;	1.1.5; 1.1.6; 1.2.1; 1.2.2;	1.1.5; 1.1.6; 1.2.1; 1.2.2;	1.1.5; 1.1.6; 1.2.1; 1.2.2;		
and unrelated purpose description**		1.2.3; 1.2.4; 1.2.5; 1.2.6;	1.2.3; 1.2.4; 1.2.5; 1.2.6;	1.2.3; 1.2.4; 1.2.5; 1.2.6;	1.2.3; 1.2.4; 1.2.5; 1.2.6;		
		1.2.7; 1.2.8; 2.1.1; 2.1.2;	1.2.7; 1.2.8; 2.1.1; 2.1.2;	1.2.7; 1.2.8; 2.1.1; 2.1.2;	1.2.7; 1.2.8; 2.1.1; 2.1.2;		
		2.1.3; 2.1.4; 2.2.1; 2.2.2;	2.1.3; 2.1.4; 2.2.1; 2.2.2;	2.1.3; 2.1.4; 2.2.1; 2.2.2;	2.1.3; 2.1.4; 2.2.1; 2.2.2;		
		2.2.3; 2.2.4; 2.2.5; 2.2.6;	2.2.3; 2.2.4; 2.2.5; 2.2.6;	2.2.3; 2.2.4; 2.2.5; 2.2.6;	2.2.3; 2.2.4; 2.2.5; 2.2.6;		
		2.2.7; 2.2.8; 2.3.1; 2.3.2;	2.2.7; 2.2.8; 2.3.1; 2.3.2;	2.2.7; 2.2.8; 2.3.1; 2.3.2;	2.2.7; 2.2.8; 2.3.1; 2.3.2;		
		2.3.3; 2.3.4; 3.1.1; 3.1.2;	2.3.3; 2.3.4; 3.1.1; 3.1.2;	2.3.3; 2.3.4; 3.1.1; 3.1.2;	2.3.3; 2.3.4; 3.1.1; 3.1.2;		
		3.1.3; 3.1.4; 3.1.5; 3.1.6	3.1.3; 3.1.4; 3.1.5; 3.1.6	3.1.3; 3.1.4; 3.1.5; 3.1.6	3.1.3; 3.1.4; 3.1.5; 3.1.6		
Unrelated Purpose #1 - insert description:		N/A	N/A	N/A	N/A		
Total Budgeted to Spend on Objectives and Unrelated		\$665,217	\$100,000	\$282,000	\$4,550,000		
Purposes: (this should be the same as Amount estimated to have							
available to spend this fiscal year)							

This is the next chart because once the agency determines the associated programs and amount of funds it is allocating to accomplish each objective, the agency needs to ensure it has proper performance measures established to track how effectively and efficiently it is utilizing the resources allocated. The agency also needs to consider potential negative impacts which may arise, and need to be addressed, if the objective is not accomplished; ensure the agency is addressing issues raised in previous audits or reviews; and continually consider which partners the agency could work with to more effectively and efficiently accomplish each objective.

Agency Responding	South Carolina Sea Grant Consortium
Date of Submission	12-Jan-16
Fiscal Year for which information below pertains	2015-16

Instructions: Below is a template to <u>complete for each Objective</u> listed in the Strategy, Objectives and Responsibility Chart. It is recommended that the agency copy and paste the data in this tab into multiple other tabs, while it is still blank. The agency will then have a blank version to complete for each separate Objective. The agency needs to provide information in all the cells that are highlighted. Please save the information related to each Objective as a separate tab in the excel document. Label each Tab, "O\_\_" and insert the applicable numbers in the blanks (For example "O1.1.1"). NOTE: Call House Staff if the agency has any questions or needs any assistance in completing the information below.

NOTE: The S.C. Sea Grant Consortium been involved in detailed Strategic Planning since 1998. Our most recent Strategic Plan was developed for the four-year period 2014 to 2017, and we are about ready to embark on the process of developing our 2018-2021 Strategic Plan this year. It has been vetted and formally approved by both the Consortium's Board of Directors and by the leadership of the NOAA National Sea Grant College Program. Our strategic planning process is comprehensive and intensive, as we engage many constituents and stakeholders in its development; it can take up to a year of engagement, writing, review, revision, and approval to complete each four-year strategic plan. Due to the detailed nature of our strategic plan (just our three strategic management areas include a total of 36 objectives), we have not yet been able to complete this excel spreadsheet. However, much of the information that is being requested in the Objective Details tab in our FY14-17 Strategic Plan, which can be found at http://www.scseagrant.org/pdf\_files/SCSGC-Strat-Plan-2014-2017.pdf and which I have attached to this report. I have also attached a copy of our Performance Measures and Results report for the years FY13-14 and FY14-15, and proposed targets for FY15-16. We are hopeful that these documents will provide the necessary information that the committee is seeking in the short-term, while we work to complete the FY16 Restructuring Report spreadsheet.

Strategic Plan Context		_
and description of Goal the Objective is helping accomplish:	We have 36 objectives total for our three Strategic Management Areas; see agency Strategic Plan for details.	Copy and paste this from the second column of the Mission, Vision and Goals Chart
Legal responsibilities satisfied by Goal:	Code of South Carolina: Title 48, Chapter 45, Section 48-45-10 et seq. (1978 Act No. 643, as amended); U.S. Code, Title 33, Section 1121 et seq. (National Sea Grant College and Program Act of 1966, as amended) - for all objectives	Copy and paste this from the first column of the Mission, Vision and Goals Chart
# and description of Strategy the Objective is under:		Copy and paste this from the second column of the Strategy, Objectives and Responsibility Chart
Objective		
Objective # and Description:	We have 36 objectives total for our three Strategic Management Areas; see agency Strategic Plan for detailed descriptions.	Copy and paste this from the second column of the Strategy, Objectives and Responsibility Chart
Legal responsibilities satisfied by Objective:	Code of South Carolina: Title 48, Chapter 45, Section 48-45-10 et seq. (1978 Act No. 643, as amended); U.S. Code, Title 33, Section 1121 et seq. (National Sea Grant College and Program Act of 1966, as amended) - for all objectives	Copy and paste this from the first column of the Strategy, Objectives and Responsibility Chart
Public Benefit/Intended Outcome:	See Agency Strategic Plan for Outcomes; In our FY14- 17 Strategic Plan, our Outcomes are organized by Goal, not by Objective	Copy and paste this from the fourth column of the Strategy, Objectives and Responsibility Chart
Agency Programs Associated with Objective		<del>-</del>

Program Names:	I. Administration	Enter all the agency programs which are helping accomplish this objective. The agency can determine this by sorting the
	Ia. Research and Education	Associated Programs Chart by the "Objective the Program Helps Accomplish" column
1	Ib. Extension	
	Ic. Communications	
1	Id. Administration	
Responsible Person		
Name:	M. Richard DeVoe	Copy and paste this information from the fifth column of the Strategy, Objectives and Responsibility Chart
Number of Months Responsible:	All	
Position:	Executive Director	
Office Address:	287 Meeting Street, Charleston, SC 29401	
Department or Division:	N/A	
Department or Division Summary:	N/A	
Amount Budgeted and Spent To Accomplish Obj	jective	
Total Budgeted for this fiscal year:	\$5,597,217	Copy and paste this information from the Strategic Budgeting Chart
1		
Total Actually Spent:	Agency will provide next year	

#### PERFORMANCE MEASURES

<u>Instructions</u>: Please copy and paste the chart and questions below as many times as needed so the agency can provide this information for <u>each</u> Performance Measure that applies to this objective.

- 1) In the cell next to, "Performance Measure," enter the performance measure just like the agency did in the accountability report.
- 2) In the cell next to, "Type of Measure," pick the type of measure that best fits the performance measure from the drop down box (see Types of Performance Measures explained below).
- 3) In the next set of cells enter the actual and target results for each year. Next to "Actual Results," enter the actual value the agency had for that performance measure at the end of that year. Next to "Target Results," enter the target value the agency wanted to reach for the performance measure for that year. Next to "Minimum acceptable level," enter the minimum level for this performance measure that the agency would find acceptable. Including a minimum acceptable level and target level will hopefully encourage the agency to continually set challenging targets each year. If the agency did not utilize a particular performance measure during certain years, then enter the following next to the applicable "Actual Results" and "Target Results," "Agency did not use PM during this year."
- 4) In the last set of cells, answer the questions to provide Details about each measure. In the cell next to, "Is agency required to keep track of this by the state or federal government," pick State from the drop down menu if an entity in state government requires the agency to track this information, or Only Agency Selected if there is no state or federal entity that requires the agency to track this information and the agency selected it.

#### <u>Types of Performance Measures:</u>

Outcome Measure - A quantifiable indicator of the public and customer benefits from an agency's actions. Outcome measures are used to assess an agency's effectiveness in serving its key customers and in achieving its mission, goals and objectives. They are also used to direct resources to strategies with the greatest effect on the most valued outcomes. Outcome measures should be the first priority. Example - % of licensees with no violations.

Efficiency Measure - A quantifiable indicator of productivity expressed in unit costs, units of time, or other ratio-based units. Efficiency measures are used to assess the cost-efficiency, productivity, and timeliness of agency operations. Efficiency measures measure the efficient use of available resources and should be the second priority. Example - cost per inspection

Output Measure - A quantifiable indicator of the number of goods or services an agency produces. Output measures are used to assess workload and the agency's efforts to address demands. Output measures measure workload and efforts and should be the third priority. Example - # of business license applications processed.

Input/Explanatory/Activity Measure - Resources that contribute to the production and delivery of a service. Inputs are "what we use to do the work." They measure the factors or requests received that explain performance (i.e. explanatory). These measures should be the last priority. Example - # of license applications received

How the Agency is Measuring its Performance	
Objective Number and Description	We have 36 objectives total for our three Strategic Management Areas;
	see agency Strategic Plan for detailed descriptions.
Performance Measure:	In its 2014-17 Strategic Plan, the Consortium associates its Performance
	Measures with its Strategic Program Goals, not its individual Program
	Objectives. Please see "Measures-Targets-Results13-16" chart adapted from
	the S.C. Sea Grant Consortium's Annual State Accountability report, which is
	attached to our transmittal e-mail.
Type of Measure:	
Results	Please see "Measures-Targets-Results13-16" chart adapted from the S.C. Sea Grant Consortium's Annual State Accountability report, which is attached to our transmittal e-mail.
2013-14 Actual Results (as of 6/30/14):	
2014-15 Target Results:	
2014-15 Actual Results (as of 6/30/15):	
2015-16 Minimum Acceptable Results:	
2015-16 Target Results:	

Details		1
Does the state or federal government require the agency to track this? (provide any additional explanation needed, two cells over)	Performance measures, targets, and results are required as key elements of the agency's Strategic Plan, which is prepared and submitted to both the Consortium's Board of Directors and NOAA National Sea Grant College program for their review and approval.	Insert any further explanation, if needed
What are the names and titles of the individuals who chose this as a performance measure?	All Performance Measures are determined through rigorous discussions with Consortium staff, Consortium program advisory committees, and a number of Consortium stakeholders and constituents. Final decisions about which Performance measures are included in the Consortium's Strategic Plan are ultimately made by the Executive Director.	
Why was this performance measure chosen?  If the target value was not reached in 2014-15, what changes were made to try and ensure it was reached?	See above.  The Consortium staff annually report metrics for its Performance Measures to both the agency's Board of Directors and NOAA National Sea Grant College Program Office. For those targets not reached, the Consortium staff annually evaluate the results to determine if the metric itself is actually attainable or if the agency needs to adjust its efforts to improve its ability to meet the target.	
What are the names and titles of the individuals who chose the target value for 2015-16?	M. Richard DeVoe, Executive Director	
What was considered when determining the level to set the target value in 2015-16 and why was the decision finally made on setting it at the level at which it was set?	Each target was determined based on the goals, strategies and objectives included within the Consortium's Strategic Plan; therefore, all measures are integrated within planned agency efforts.	
Based on the performance so far in 2015-16, does it appear the agency is going to reach the target for 2015-16?	The Consortium maintains its performance targets for a period of four years - given the long-term nature of Consortium programs and activities - which corresponds to the four-year term of its Strategic Plan. It revises its performance measures and associated four-year targets as it begins creation of its next four-year strategic plan	
If the answer to the question above is "questionable" or "no," what changes are being made to try and ensure it is reached or what resources are being diverted to ensure performance measures more likely to be reached, are reached?	See previous response.	

#### POTENTIAL NEGATIVE IMPACT

Instructions: Please list what the agency considers the most potential negative impact to the public that may occur as a result of the agency not accomplishing this objective. Next to, "Most Potential Negative Impact," enter the most potential negative impact to the public that may occur as a result of the agency not accomplishing the objective. Next to, "Level Requires Outside Help," enter the level at which the agency believes it needs outside help. Next to, "Outside Help to Requires Inform General Assembly," enter the level at which the agency thinks the General Assembly should be put on notice of the level at which the potential negative impact has risen. Next to, "3 General Assembly Options," enter three options for what the General Assembly could do to help resolve the issue before it became a crisis. The House Legislative Oversight Committee will provide this information to all other House standing committees, but will not address it itself until the agency is under study.

Most Potential Negative Impact	The Consortium's programs and activities are driven through input we seek from the multitude of stakeholders and constituencies which we engage to identify their priority research, education, extension services, and communications needs. We then partner with our member institutions to locate and/or generate the information needed to address these needs, and develop the means by which this science-based information can be transferred back to the targeted stakeholders/constituencies in forms that they can actually use to build awareness, inform decision-making, and/or train and educate students and the future workforce. Most of what the agency does is dependent on its ability to secure competitive funding to support its priority research and outreach programs.
Level Requires Outside Help	The Consortium sets out its objectives over a four-year period (through its four-year strategic plan), and then must continually solicit proposals for non-state funding and secure those funds to be able to address the objectives we have set out. Therefore, most of the programming we do requires outside help by definition.
Outside Help to Request	See above. If external funding becomes significantly limited, the agency's ability to serve the public through its stakeholder-driven strategic plan would be seriously compromised.
Level Requires Inform General Assembly	The General Assembly would be informed if the agency's state appropriations level were to be subject to a significant reduction due to, for example, budget reductions, or if its legislative foundation were to be challenged.
3 General Assembly Options	Would be difficult to speculate at this point.

#### **REVIEWS/AUDITS**

<u>Instructions</u>: Below please list all external or internal reviews, audits, investigations or studies ("Reviews") of the agency which occurred during the past fiscal year that relates/impacts this objective. Please remember to maintain an electronic copy of each Review and any other information generated by the entity performing the Review as copies may be requested when the agency is under study. NOTE: Responses are not limited to the number of rows below that have borders around them, please insert as many rows as needed.

Matter(s) or Issue(s) Under Review	Reason Review was Initiated (outside request, internal policy, etc.)		Date Review Began (MM/DD/YYYY) and Date Review Ended (MM/DD/YYYY)
Four-year review ("National Sea Grant Site Visit") of agency (1) program management and organization; (2) stakeholder engagement; and (3) collaborative network activities	College Program's Program Planning, Implementation	External, national-level Sea Grant Site Visit Panel consisting of National Sea Grant College Program Official, National Sea Grant Advisory Board member, State Sea Grant Director (from outside SC), and two subject matter specialists	September 1-2, 2015; covering the period 2010-11 through 2013-14; copy of Final Site Visit Report is attached to this report's transmittal e-mail
		External, national-level scientific, technical, and management panel - consisting of 20 to 40 members - which meets in Washington, DC every four years	Third week of October 2015; covering the period 2010-11 through 2013-14; agency is yet to receive the results of this evaluation.

#### PARTNERS

<u>Instructions</u>: Under the column labeled, "Current Partner Entities" list all entities the agency is currently working with that help the agency accomplish this objective. Under the "Ways Agency works with Current Partners," enter the ways the agency works with the entity (names of projects, initiatives, etc.) which helps the agency accomplish this objective. List only one partner per row and insert as many rows as necessary to list all of the partners. Note, if there is a large list of partners that all fit within a certain group, the agency can list the group instead of each partner individually. For example, if the agency works with every middle school in the state, the agency can list SC Middle Schools, instead of listing each middle school separately. As another example, if the agency works with every high school in Lexington county, the agency can list Lexington County High Schools, instead of listing each high school in the county separately.

Current Partner Entity [The Consortium's partner listing below is from 2013; many of these partners remain partners with the Consortium today. An updated partners listing will be provided with our submission of a revised report.]	Ways Agency Works with Current Partner [The following key applies to the entries below: C = Collaborator; F = Funding Organization; PP = Program Partner; S = Targeted Stakeholder; A = Authorizing Body]	Is the Partner a State/Local Government Entity; College, University; or Other Business, Association, or Individual?
NOAA National Sea Grant College Program	F;C;A	Federal Agencies/National Organizations
NOAA Climate Program Office	F	
NOAA National Severe Storms Laboratory	С	
NOAA National Ocean Service	F;C	
NOAA Hollings Marine Laboratory	C;PP	
NOAA Center for Coastal Environmental Health and Biomolecular Research	C;PP	
NOAA National Weather Service	С	
NOAA Fisheries	С	
NOAA Office of Ocean Exploration	С	
NOAA Office of Education	F;C	
U.S. Geological Survey	F;C	
U.S. National Park Service	С	
National Science Foundation	F	
U.S. Department of Agriculture	С	
U.S. Centers for Disease Control and Prevention	F	
U.S. Environmental Protection Agency	F;C	
U.S. Army Corps of Engineers	С	
U.S. Federal Emergency Management Agency (Region IV)	С	
National Marine Educators Association	PP	
National Non-Point Education for Municipal Officials (NEMO) Network	PP	
IOOS Coalition	PP	
Consortium for Ocean Leadership	С	
Sea Grant Association	С	
S.C. African-American Heritage Commission	PP	State and Local Non-Governmental Organizations
S.C. Aquaculture Association	С	
S.C. Chapter - American Planning Association	С	
S.C. Coastal Conservation League	S	
S.C. Downtown Development Association	S	
S.C. Economic Developers Association	S	
S.C. Marine Association	C;S	
S.C. Marine Educators Association	C:S	
S.C. Nature-Based Tourism Association	C;S	

S.C. Seafood Alliance	C;S	
S.C. Shellfish Growers Association	C;S	
S.C. Shrimpers Association	C;S	
S.C. Wildlife Federation	S	
Maritime Association of the Port of Charleston Georgia Department	S	
of Natural Resources		
Ashley Scenic River Advisory Council	C;PP	
Beaufort County Open Land Trust	S	
Charleston Resiliency Network	C;PP	
Keep South Carolina Beautiful	С	
Low Country Institute (Spring Island, S.C.)	C;PP	
Spring Island Trust	С	
Gullah-Geechee Sea Island Coalition	C;PP;S	
The Nature Conservancy	C;PP;S	
United States Lifeguard Association	S	
Kitchen Table Climate Study Group (McClellanville)	S	
(Wedenary me)	3	
South Carolina Governor's Office	С	State and Local Governments
		State and Local Governments
South Carolina State Legislature	F;A	
S.C. Department of Natural Resources	C;PP;S	
S.C. Department of Education	C;S	
S.C. DHEC-OCRM and DHEC-EQC	C;PP	
S.C. Department of Parks, Recreation & Tourism	С	
S.C. Department of Agriculture	PP	
S.C. Emergency Management Division	PP	
S.C. State Ports Authority	S	
ACE Basin National Estuarine Research Reserve	C;PP	
North Inlet-Winyah Bay National Estuarine Research Reserve	C;PP	
City of Charleston	C;PP	
•	C;PP	
City of Folly Beach		
City of Georgetown	C;PP	
City of Hardeeville	C;PP	
City of Isle of Palms	C;PP	
City of Myrtle Beach	C;PP	
City of North Myrtle Beach	C;PP	
Town of Sullivan's Island	C;PP	
Town of Seabrook Island	C;PP	
Town of Edisto	C;PP	
Town of Hilton Head Island	C;PP	
Town of Kiawah Island	C;PP	
Town of Port Royal	C;PP	
•	C;PP	
Berkeley-Charleston-Dorchester Council of Governments	•	
South Carolina Aquarium	C;PP	
Charleston County Parks and Recreation Commission	C;PP	
Southeast Sea Grant College Programs (4)	C;PP	Regional Organizations
Governors' South Atlantic (Ocean) Alliance	C;PP	
South Atlantic Fishery Management Council	С	
Atlantic States Marine Fisheries Commission	С	
Gulf States Marine Fisheries Commission	С	
Southeast Coastal Ocean Observing Regional Association	C.DD.C	
(SECOORA)	C;PP;S	
Gullah-Geechee Cultural Heritage Corridor Commission	C;PP;S	
Southeast Center for Ocean Sciences Education Excellence	C;PP;S	
(COSEE-SE)		
Ocean Sciences Bowl, South Carolina/Georgia Region	C;PP	
NOAA Southeast and Caribbean Regional Team	C;PP	
Consortium Member Institutions (8)	PP	<b>Academic Institutions</b>
Clemson University Restoration Institute	С	
University of Florida	С	
VIMS – College of William and Mary	С	
SUNY-Albany	C	
	C	

University of North Carolina - Chapel Hill	С	
University of North Carolina – Wilmington	С	
East Carolina University	С	
Duke University	C;PP	
Georgia Institute of Technology	С	
North Carolina State University	С	
Skidaway Institute of Oceanography	C;PP	
University of Rhode Island	С	
and others		
S.C. Chamber of Commerce	С	Business and Industry
Charleston Metro Chamber of Commerce	C;PP	
Institute of Business and Home Safety (IBHS)	C;PP	
Santee Cooper	С	
Southland Fisheries Corporation	C;S	
Swimming Rock Fish & Shrimp Farm	C;S	
Design Works	С	
Lack's Beach Lifeguards	S	
Midway Fire Department	S	
Geodynamics, Inc.	C;S	
Applied Technology & Management	C;S	
BP Cooper River Plant	PP	
Ben & Jerry's of Charleston	PP	
Wild American Shrimp, Inc.	С	
Southeast Biodiesel, Inc.	С	
Charleston City Marina	С	
Charleston Water System	С	
Coastal Expeditions	C;PP	
Duke Energy Foundation	С	
Magnolia Plantation and Gardens	С	
Middleton Place	C;PP	
Mount Pleasant Waterworks	C;S	
Osprey Marina	С	
Piggly Wiggly Carolina Co.	C;PP	
Walmart Market 123	PP	
International Conference on Shellfish Restoration	PP	International Organizations
Aquatic Plant Management Society	C	meeriational organizations
The Coastal Society	C	
The coustal coolety	C	
Hilton Head Sportfishing Club	S	Other Organizations
Georgia Aquarium	С	
North Carolina Aquarium	С	
Kiawah Island Community Association	S	
Edisto Beach Community	S	
Waccamaw Watershed Academy	С	
Coastal Waccamaw Stormwater Education Consortium	PP	
Ashley-Cooper Stormwater Education Consortium	PP	
S.C. Coastal Information Network	C;PP	
S.C. Task Group on Harmful Algae	C;PP	
Ocean Conservancy	C;PP	

## Reporting Requirements

Agency Responding
Date of Submission
Fiscal Year for which information below pertains

<u>Instructions</u>:

List all reports, if any, the agency is required to submit to a state, federal or outside entity on a regular basis. Insert the name of each report in a separate

column and answer the questions below it. Add as many columns as needed. PLEASE NOTE: All information the agency provides in the rows below the row labeled, "Date the Report was last submitted," should apply to when the agency

most recently submitted the report (i.e. date report was last submitted).

gency Responding	S.C. Sea Grant Consortium	S.C. Sea Grant Consortium	S.C. Sea Grant Consortium	S.C. Sea Grant Consortium	S.C. Sea Grant Consortium	S.C. Sea Grant Consortium	S.C. Sea Grant Consortium	S.C. Sea Grant Consortium	S.C. Sea Grant Consortium	S.C. Sea Grant Consortium	S.C. Sea Grant Consortium	S.C. Sea Grant Consortium	S.C. Sea Grant Consortium	S.C. Sea Grant Consortium	S.C. Sea Grant Consortium	S.C. Sea Grant Consortium	S.C. Sea Grant Consortium
eport #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
eport Name:	Restructuring Report	Restructuring Report	Accountability Report	Debt Reporting and Collection	Comprehensive Annual Financial I	Report   Schedule of Federal Financial	South Carolina State Sales and Use Ta	OSHA Form 301: Injury and Illness	UCE-101/120 Quarterly Filings:	State of South Carolina Information	NOAA National Sea Grant College	NOAA National Sea Grant College	Annual Energy Consumption Report	South Carolina State Recycling and E	Buy State Procurement Sole-Source Repo	ort State of South Carolina Minority	State Fleet Accident Repor
					(CAFR)	Assistance (SFFA) Report	Return	Incident Report	Contribution and Wage Reports	Technology and Information Security	Program Annual Progress Report	Program Semi-Annual Financial Repor	t	Recycling Annual Report		Business Utilization Report	
Vhy Report is Required										Flair							
egislative entity requesting the agency complete the report:	House Legislative Oversight Committee	Senate Legislative Oversight Committee	Executive Budget Office	Executive Budget Office	CG's Office	Office of the State Auditor	State of South Carolina	U.S. Department of Labor Bureau of	South Carolina Department of	South Carolina Department of	NOAA National Sea Grant College	NOAA National Sea Grant College	Office of Regulatory Staff, Energy Office	South Carolina Department of Healt	h & State of South Carolina Department of	of South Carolina Division of Small and	State of South Carolina De
								Labor Statistics	Employment and Workforce	Administration	Program	Program		Environmental Control	Administration, Division of Procureme	ent Minority Business Contracting and	Administration
															Services	Certification	
aw which requires the report:	1-30-10 (G)(1)	1-30-10 (G)(1)	1-1-820, Proviso 117.31	Proviso 117.37	Section 11-7-10 et seq.	Proviso 117.105	Sections 12-36-5 et seq	Public Law 91-596	Section 41-29-120	Proviso 117.118	N/A; Required by Grant Terms	N/A; Required by Grant Terms	Sections 48-52-610 thru 680, 48-52-910	Section 44-96-10 et seq.	Sections 11-35-2440, -3830, -1220	Section 11-35-5010	State Lease Contract
gency's understanding of the intent of the report:																	
ear agency was first required to complete the report:	2015	2015	2001 (?)	(?)	(?)	(?)	(?)	1970	2010	(?)	1980	1980	1992	1991	(?)	1981	(?)
eporting frequency (i.e. annually, quarterly, monthly):	Annual	Annual	Annual	Quarterly	Annual	Annual	Annual	Annual	Quarterly	Annual	Annual	Semi-annual	Annual	Annual	Quarterly	Annual	Quarterly
nformation on Most Recently Submitted Report																	
	04 02 2016	01 13 2015	09 15 2015	10 01 2015	11 02 2015	08 15 2015	01 20 2015		12 23 2015	10 23 2015	06 01 2015	08 01 2015	09 01 2015	09 30 2015	01 05 2016	09 24 2015	01 06-16
Ionth Report Template is Received by Agency:	December	November (?)	mav	quarterly (one month in advance)	July	July	N/A	N/A	Quarterly	September	February	May: November	August	June	Quarterly (one month in advance)	August	Quarterly
Nonth Agency is Required to Submit the Report:	January	January (?)	September	quarterly	November (last report)	August	January	January	Quarterly	October	June	August; February	September	September	Quarterly	September	Quarterly
here Report is Available & Positive Results																	
o whom the agency provides the completed report:	House Legislative Oversight Committee	Senate Legislative Oversight Committee	Executive Budget Office	Executive Budget Office	CG's Office	Office of the State Auditor	South Carolina Department of	South Carolina Department of Labor	South Carolina Department of	South Carolina Department of	NOAA National Sea Grant College	NOAA National Sea Grant College	Office of Regulatory Staff, Energy Office	South Carolina Department of Healt	h & State Fiscal Accountability Authority	Office of Small and Minority Business	State Fleet Management
							Revenue	Licensing and Regulation	Employment and Workforce	Administration, Division of Technolo	ogy Program Office	Program Office		Environmental Control		Assistance	
ebsite on which the report is available:																	
it is not online, how can someone obtain a copy of it:																	
ositive results agency has seen from completing the report:																	

### Restructuring Recommendations and Feedback

Agency Responding	South Carolina Sea Grant Consortium
Date of Submission	12-Jan-16
Fiscal Year for which information below pertains	2015-16

#### RESTRUCTURING RECOMMENDATIONS

Instructions: Please answer the questions below and add as many rows as needed.

Does the agency have any recommendations, minor or major, for restructuring?

The agency has no recommendations for restructuring at this time.

If the agency has recommendations for restructuring, list each one on a separate row in the chart below. Add as many rows as needed.

Does the agency recomme	endation require legislative action?	Recommendation for restructuring

#### FEEDBACK (Optional)

Instructions: Please answer the questions below to provide feedback on this Annual Restructuring Report ("Report").

		Now that the agency has completed the Report, please list 1-3 things the agency could do differently next year (or it could advise other agencies to do) to complete the Report in less time and at a lower cost to the agency.
1	1	1
2	2	2
3	3	3

Does the agency believe this year's Restructuring Report was less	Please list 1-3 changes to the Report questions, format, etc. the agency	Please add any other feedback the agency would like to provide (add as
burdensome than last year's?	recommends to ensure the Report provides the best information to the public and	many additional rows as necessary)
	General Assembly, in the least burdensome way to the agency.	
	1	
Why or why not?	2	
	3	

Agencies are not required to do anything in this worksheet. This worksheet is part of the document so the proper drop down menus can be available in the other tabs.

#### Is Performance Measure Required?

State Federal Only Agency Selected

#### **Type of Performance Measure**

Outcome Efficiency Output Input/Explanatory/Activity

### Is the Partner a State/Local Government Entity; College, University; or Other Business, Association, or Individual?

State/Local Government Entity College/University Business, Association or Individual

#### Does the Agency have any restructuring recommendations

Yes

No

Does the agency believe this year's Restructuring Report was less burdensome than last year's?

Yes

No

#### South Carolina Sea Grant Consortium



#### The Changing Face of Coastal South Carolina: Enhancing Understanding – Informing Decision-making

STRATEGIC PLAN 2014-2017

October 29, 2012





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#### South Carolina Sea Grant Consortium

#### The Changing Face of Coastal South Carolina: Enhancing Understanding - Informing Decision-making

STRATEGIC PLAN 2014-2017

#### **Setting**

#### The Changing Face of Coastal South Carolina

Every day, more and more people are competing for the use of the coast's natural resources. Today, the state's challenge is to conserve those resources while accommodating growth, economic development, environmental quality, and the heritage and quality of life for all of the citizens of South Carolina. This is a crucial challenge because the state's abundant natural resources contribute much more than just scenic mountain views and beach vistas. A 2009 study by the Darla Moore School of Business at the University of South Carolina documented that the states diverse natural resource sectors contributed \$29.1 billion and 236,110 jobs to the state's economy in 2008.

What are coastal South Carolina's natural resources? The state boasts 2,876 miles of tidal shoreline, 504,450 acres of salt marsh (20 percent of the East Coast's total), 500,000 acres of tidal bottomlands, 165 linear miles of beaches, more than 40 barrier/sea islands, and 10,000 square miles of continental shelf, the latter a region of growing economic and resource interest. One of today's challenges is the potential for oil and gas exploration and alternative energy development off our coast; regional planning in the coastal ocean will be particularly important.

This diverse, complex region supports a wide range of living resources and human activities, including shipping, tourism, fishing, manufacturing, residential and commercial development, just to name a few.

But in just one decade (2000 to 2010), however, South Carolina's coastal population increased by an average of 21 percent, exceeding the state's overall population increase of 13.6 percent. People are increasingly drawn to the coast, placing especially great pressures at the margins of urbanized areas.

So, where do we put all of the new arrivals to the coast, and how do we maintain the environmental, cultural, and historical qualities that continue to draw people there? In the 2010 Charleston Metro Chamber of Commerce Legislative Agenda, growth management is listed as one of the top issues and is a legislative priority for the Chamber.

Recent patterns of growth have resulted in changes in land use and an increased demand on our resources. Already, pollution, erosion, coastal storms, and poorly planned development have left their mark.

The economy of coastal South Carolina continues to change. Although commercial fisheries (for fish, oysters, clams, shrimp and crabs) represent a decreasing portion of the state's economy, they remain an important waterfront use and a functional component of local economies and way of life. In 2005, 1,500 to 2,000 commercial South Carolina fishermen harvested 11.2 million pounds of seafood worth about \$17.5 million. Stable aquaculture operations in hard clam and other shellfish aquaculture have already been established. Recreational fishing and boating are making larger contributions to the state's economy. According to the S.C. Department of Natural Resources, the annual impact of marine recreational fishing in South Carolina significantly exceeds \$300 million. Since July 1992, more than 1,839,483 saltwater fishing licenses have been sold.

In addition, tourism is now a \$15 billion industry, with the eight coastal counties accounting for approximately 50 percent of that total and supporting almost 81,000 jobs. Three of the eight coastal counties led all of South Carolina's 46 counties in domestic travel expenditures in 2010.

The Port of Charleston is one of the busiest container ports on the East and Gulf coasts, and ranks eighth in the nation for dollar value of international shipments, with cargo valued at more than \$50 billion in 2010. The South Carolina State Ports Authority (SPA) served over 1,800 vessels and had a total operating revenue of \$112 million in 2010. The SPA also supports nearly 300,000 jobs across the state, providing an economic impact of \$45 billion annually.

South Carolina's challenges are not unique. State boundaries are political boundaries; however, rivers, watersheds, and the movement of pollutants and people are not restricted to individual states.

Similar to other coastal states from Texas to Maine, naturally occurring coastal erosion threatens homes and businesses built along our shoreline. If scenarios of sea level rise due to global climate change and land subsidence play out as predicted, erosion impacts will be exacerbated in the future. Episodic hazards events, such as wind, surge, and flood associated with hurricanes, tropical storms, and nor'easters will also continue to threaten developed portions of our coast. Historically, major tropical storms have struck the South Carolina coast every seven to eight years. Many long-range climate forecasters argue that we are now entering a cycle of more severe coastal storms.

Accommodating the various needs of those who use and enjoy coastal and marine resources presents an enormous challenge. The S.C. Sea Grant Consortium is committed to optimizing the balance among economic, social, and environmental potential of the state's coastal and marine resources through the support of integrated research, education, and extension programs. The Consortium is also interested in addressing the uncertainty that change brings with it to the coastal

region, and how we can adapt and prosper. It does so by engaging the talents and expertise found at South Carolina's leading university and research institutions to increase our knowledge about the natural, cultural, and social environments of South Carolina and the region.

#### Mission

The S.C. Sea Grant Consortium's mission statement is:

"South Carolina Sea Grant Consortium generates and provides science-based information to enhance the practical use and conservation of coastal and marine resources that fosters a sustainable economy and environment for the state of South Carolina and its citizens."

#### **Our Niche**

The Consortium is well aware of the many organizations and institutions that are engaged with coastal and ocean resources issues and opportunities. But the Consortium is unique in that it provides mechanisms by which many interests can come together to identify, discuss, study, and share information about our coastal and ocean environment and its economic, environmental, and socio-economic importance to the state. We do this through partnerships, and we recognize that "the value of working with partners from all sectors is critical to our success." In fact, one element of the Consortium's South Carolina legislative mandate is to "encourage and follow a regional approach to solving problems or meeting needs relating to ocean and coastal resources in cooperation with appropriate institutions, programs and persons in the region."

We find our partners everywhere, from working waterfronts to the research laboratories of our Consortium members. We partner in research, extension, education and communication programs. As a partner, sometimes our role may be to organize and manage multi-disciplinary/institutional research programs. For example, the South Atlantic Bight Land Use–Coastal Ecosystem Study (LU-CES), a five-year, multidisciplinary research and outreach program funded by the NOAA Coastal Ocean Program, S.C. Sea Grant, and GA Sea Grant engaged scientists from South Carolina and Georgia working collaboratively to examine how land use and land use change affects marine resources, to provide a better understanding of the cause-and-effect relationships of land use activities on coastal ecosystems, and to inform decisions being made by state resource managers and local communities every day.

In other cases, our partnership efforts take the form of facilitating communication between and among parties. For example, our fishery extension specialist continues to work with South Carolina fishermen to help them better understand and navigate through the many Federal and state fishery regulations, as has been the case with turtle excluder devices, by-catch reduction, and more recently marine protected areas.

The Consortium also partners by serving as a bridge between parties the need data and information to assist in making management decisions, and scientists that can generate and acquire it. For example, the South Carolina Coastal Erosion Study,

managed by the Consortium with funding provided by the U.S. Geological Survey, has served coastal managers and local communities by documenting shoreline change over time (due to erosion and accretion), the effectiveness of nourishment projects, and locations of sand resources for future nourishment projects. Although initiated as a research program, components of it continue to provide information to these audiences to inform their decision making processes.

Finally, sometimes we help initiate programs which then grow and become something much larger than anyone ever envisioned. This was the case when in the 1980s the Consortium made a very small grant to the Roper Mountain Science Center in the upstate to acquire a 'touch-tank' to begin a marine science program, and then sent us a letter 15 years later acknowledging that our investment served as the foundation for the creation of a new expansive marine science wing at their facility.

The bottom line is that the Consortium and its programs serve to address specific and unique needs of coastal stakeholders, and help initiate efforts that take on lives of their own.

#### Motto

"Coastal Science Serving South Carolina"

While the focus of S.C. Sea Grant is on coastal and ocean resources and communities, we are mindful of the interrelationships between the mountains, piedmont, and coastal plain of South Carolina. Therefore, our work has impact throughout the state.

#### Vision for the Coast

Looking toward the future (next 25 years), the Consortium envisions a thriving South Carolina where the following are true:

- Communities are employing strategies to manage growth associated with coastal population expansion in ways that conserve coastal and marine resources, support a vigorous economy, and preserve a high quality of life for their citizens.
- 2. Decision-makers are incorporating scientific information as they make choices about coastal growth, coastal health, and public safety.
- 3. Coastal and marine resources are healthy, vital, and abundant.
- 4. Children are knowledgeable about the importance and limitations of coastal and ocean resources.
- 5. People across the state and region are informed about coastal and marine resource issues, and practice good resources stewardship.
- 6. Individuals, businesses, and governments fully understand and anticipate the coastal risks that confront them and act to reduce those risks.

#### Vision for the Consortium

The South Carolina Sea Grant Consortium is...

- The best Sea Grant College Program in the Nation.
- One of the most efficiently and effectively managed State (South Carolina) agencies.

#### Core Values

The S.C. Sea Grant Consortium operates on a core set of values that are essential for successful performance.

#### The Consortium values:

- *Trust, Honesty,* and *Respect* in our professional interactions.
- Integrity and Objectivity of program activities.
- Partnerships and Teamwork critical to meet increasing demands for products and services.
- Excellence in quality of work by staff and partners.
- Public *Service* to our stakeholders throughout the state, region, and nation.

#### **Operational Principles**

The S.C. Sea Grant Consortium achieves excellence in its mission by adhering to the following operational principles:

- 1. People are our greatest asset.
- 2. Stakeholder input drives programs and activities.
- 3. The value of working with partners from all sectors is critical to our success.
- 4. Consortium research, extension, education, and training programs require full integration of resources.
- 5. Accountability and transparency are key components of the agency's performance and achievement of results.
- 6. Equal access to opportunities will be afforded to all constituencies.
- 7. Agility and flexibility create strategic opportunities for addressing emerging and contemporary issues important to South Carolina and the region.
- 8. Quality of work is assured through a competitive peer-reviewed process for selection of activities.
- 9. Science-based information will be expressed in an objective fashion and delivered in formats and terms suitable for diverse audiences.
- 10. An active role will be taken in local, state, regional, and national partnerships and collaborations.

#### **Planning Process**

The goal of the Consortium's strategic planning process is to optimize the ability of S.C. Sea Grant Consortium's research, education, and outreach programs to address the coastal resource needs of South Carolina.

#### Strategic Planning for 2010-13

An extensive review of other Sea Grant strategic plans, an on-line survey and a review by the Consortium's Program Advisory Board formed the basis for the Consortium's 2006-10 strategic plan. Likewise, a review of the 2006-10 plan led us to the conclusion that the programs identified in it were still relevant and thus a revision and alignment were the necessary steps to developing a comprehensive Consortium strategic plan for 2010-13.

In the 2010-13 planning process, the NOAA National Sea Grant College Program Office (NSGO) alignment took a stepwise approach, with the first phase focusing on the strategic plan and the second phase on implementation plans. One of the requirements of the NSGO was that the strategic and implementation plans be developed on four-year cycles starting in 2010. The NSGO required the Consortium to (1) identify how each of its strategies fit into the National Sea Grant strategies (strategy) and (2) identify outcomes, performance measures, and targets (implementation) for the four-year period. The Consortium's senior management team completed these two alignment activities and received favorable comments from the National Sea Grant office regarding the Consortium's plan for alignment.

The Consortium's 2010-13 strategic and implementation plan was developed based on the alignment process. The Consortium's Program Advisory Board (PAB) met on September 4, 2009 to review and discuss the plan. The PAB provided input on the strategic areas, visions, goals, and strategies. The PAB unanimously endorsed the plan for submission to the Consortium Board of Directors for approval.

The Consortium's Board of Directors met on September 21, 2009. The Board provided a few comments which were incorporated in the plan, including a statement that the plan recognize the fact that the Consortium must be flexible and nimble enough to be able to address emerging issues in the state and the region and to take advantage of funding opportunities within and outside of Sea Grant when they available. The Board unanimously approved the Consortium's 2010-13 strategic and implementation plan.

#### Strategic Planning for FY2014-17

Much the same process that was implemented in the 2006-10 and 2010-13 periods was followed in the current 2014-2017 planning process. Our 2014-17 strategic planning effort engaged our constituents and collaborators beginning in the fall of 2011 and throughout the winter of 2012. Four Extension Advisory Committees, corresponding to the Consortium's program focus areas, were convened for annual meetings. At these meetings, activities and accomplishments of the previous year as well as priorities for the upcoming year were presented, and current and emerging issues on the horizon for the next several years were discussed. Information gleaned from this process was then captured and formed the basis for

drafting the initial version of the FY14-17 plan. This input was also synthesized and provided as input into the National Sea Grant strategic planning process via a questionnaire in April 2012.

Based on the structure and organizational elements of previous plans and up-to-date constituent input on current needs, the Consortium staff met throughout the spring of 2012 to work on the draft plan. Then, in September 2012, the Consortium convened five stakeholder/partner focus groups, organized according the Consortium's five program areas, to provide additional input into the substance of the plan. After final revisions, the Consortium presented its proposed 2014-17 strategic plan to its Program Advisory Board on September 26, 2012 at which time it was endorsed to be sent to the Consortium's Board of Directors for final review and approval. The Consortium Board met on October 2, 2012 and formally approved the plan.

The structure and organization of the plan remains very similar to that of the FY2010-13 plan. With regard to its programmatic content, the 2014-17 plan is also similar. The Consortium's five programmatic areas remain the same, while the issues, goals, objectives, and strategies sections have been modified only slightly in response to stakeholder input, for further clarity, or for improved focus. It differs mainly in its integration of the previously separate implementation plan into the main body of the strategic plan. In addition, the performance measures and program metrics, previously located in the implementation plan section, have been significantly consolidated and are now integrated within each program area.

Implementation of this plan will be partially achieved through the Consortium's biennial Sea Grant Omnibus proposal solicitation and review process. To assist the agency in identifying specific projects and activities that it will pursue over the next two biennia, the Consortium will convene engagement groups consisting of representatives of a diversity of public and private sector interests. These engagement groups will help Consortium staff identify the specific issues and opportunities, based on this strategic plan, which will serve as the basis for the Consortium's efforts over the next four years.

### Strategic Plan: A Framework for Action

The S.C. Sea Grant Consortium has developed a strategic plan for the next four years to address contemporary coastal and marine resource issues facing South Carolina. These goals and objectives will serve as a guide and filter for the activities that the S.C. Sea Grant Consortium will undertake over the next four years.

Within each of these sections, the strategic areas are divided into Programmatic and Management focus areas. The programmatic areas include the Consortium's plans for research, education and outreach-based activities. The management areas include process-based activities that dictate how the Consortium will support its mission, assess customer satisfaction, ensure financial performance, and document human resource activities.

The strategic plan section includes the vision, goals, objectives, and strategies for each strategic area. Within each area, the Consortium has identified major strategic areas of emphasis. Each strategic area includes a background statement, identification of key issues, and a single agency goal. For each goal, one to three objectives are identified; for each objective, a set of strategies, outcomes, and indicators are listed. The purposes for each are as follows:

- Background Statement context and historical information for each Strategic Area.
- *Issues* the underlying justification for the identification of activities to be undertaken for each Strategic Area.
- *Vision* the overall anticipated outcome for each Strategic Area.
- Goals the overall anticipated results within each Strategic Area.

For each Goal, a set of objectives and strategies, intended outcomes, performance measures and targets are listed, and are defined as follows:

- Objectives specific program/management areas of emphasis that will be addressed.
- Strategies activities to be conducted to achieve the objective.
- Outcomes The end results or consequences of the strategies employed.
- Performance Measures The measures to be used to evaluate success in achieving objectives.
- Targets The predicted level of each performance measure over the four year period.

The Consortium's 2014-17 strategic plan will serve as the template for future strategic plans. The strategic areas, goals, and objectives are expected to continue to be relevant for a number of years to come. The strategies the Consortium utilizes to achieve these goals and objectives are expected to be re-evaluated during each subsequent revision of the plan. New strategies will be included as current strategies are addressed and new issues arise. The outcomes and performance measures will be assessed on two-year cycles.

### **Definitions**

Within this document there are several terms that are used repeatedly that encompass greater meaning than may be immediately apparent. For this reason, we will provide our definitions for these terms here.

- 1. "community/ies" is a term of reference used in the broadest, small "c", sense to include: people, local governments, organizations, associations, businesses, etc. For example, the community of Charleston, the environmental community, the commercial fishing community, etc. We use this general term 'communities' to avoid unnecessary repetition, and are confident that for most people the context in which the term is used will sufficiently identify the referenced community.
- 2. "decision-maker" is a term of reference used to include anyone who makes decisions at any level. This would include home/property owners, community groups/organizations, local/state/federal government, business/industry, etc.

For our purposes, 'decision-maker' is synonymous with "stakeholder". Our rationale for the broad use of 'decision-maker' is again, to avoid repetition. More importantly, our intent is to emphasize that everyone is a decision-maker. We all make choices about what we do, how we vote, what we manage, what we study, what we value, and what laws we enact. One of the most important roles of Sea Grant is to inform the decision making process at any and all levels, with science-based information.

3. "sustainability" is defined as meeting the needs of the present generation without compromising the ability of future generations to meet their own needs. Sustainability has three equally weighted components: economic, environmental, and societal.

## Plan of Action

### **Programmatic Areas**

Five programmatic areas have been identified by the Consortium:

- 1. The Coastal and Ocean Landscape
- 2. Sustainable Coastal Development and Economy
- 3. Sustainable Fisheries and Aquaculture
- 4. Hazard Resilience in Coastal Communities
- 5. Scientific Literacy and Workforce Development

Programmatic areas outlined in this plan will not necessarily be completed within the four-year time frame, but rather reflect research, education, and outreach priorities that the Consortium will use to take advantage of opportunities. For example, the Consortium will issue requests for proposals related to the Programmatic topic areas; however, the strategies that will be pursued will be determined in part by those proposals received and favorably considered, through the agency's rigorous peer review process.

### I. THE COASTAL AND OCEAN LANDSCAPE

The natural features of the State of South Carolina are diverse and striking. South Carolina contains 2,876 miles of tidal shoreline, 500,000 acres of tidal bottoms, 504,450 acres of salt marsh, (representing 20 percent of the East Coast total), some 4.5 million acres of freshwater wetlands (covering about 24 percent of the land area of the state), and 10,000 square miles of coastal ocean. The South Carolina coastline is characterized by more than 165 linear miles of beaches and dotted with more than 40 barrier and sea islands. Five major estuaries drain major watersheds originating from as far away as western North Carolina. Plantation lands and managed wetlands, remnants of the once flourishing rice culture industry of the late 18th and 19th centuries, remain remarkably intact today; many form the basis for significant refuge holdings and hunting and agricultural pursuits, while others have provided the "raw material" for resort development and tourism.

Collectively, these lands represent the importance of the state's coastal heritage in shaping growth and development along the coast.

The coastal and marine resources of South Carolina are directly affected by both human influences throughout the watersheds in the coastal zone and by the physical and natural processes of the state's adjacent coastal ocean. The focus of this program area is to support research efforts to assess and document the natural coastal and oceanographic processes, the valuation of resources, and the services they provide to inform targeted constituencies and decision-makers. Consortium stakeholders identified an improved understanding of natural processes, coastal and ocean ecosystem health, and long-term conservation of natural and cultural resources as high priority areas. In addition, they suggested that the development of predictive tools for coastal ocean processes and estuarine water quality events, and determination of the economic and social value of resources to be priority areas. Generating this baseline information is critically important in order to gain a better understanding of the effects and impacts that natural and anthropogenic influences are having on how our coastal and ocean environments function.

#### Issues

- The South Carolina coastal landscape is rapidly changing, with potential for significant alterations in the structure and function of the natural environment. Before the effects of this change can be determined, the physical, chemical, geological, biological, and socio-demographic environment along the South Carolina coast must be documented.
- In the course of history, humans have impacted natural environments and as a result fisheries and their associated habitats may experience negative impacts (e.g., decline in fisheries). Restoration efforts, both habitat and stock, are critical to offset these impacts. (incl. marine debris, climate, fisheries)
- Upland watershed processes drive estuarine and coastal ocean ecosystems through freshwater input and groundwater discharge. Issues of scaling and variability must be taken into account.

**Vision:** The ecological and economic value of coastal and ocean ecosystem functions are documented and resultant information and tools are delivered to state and local decision-makers, resource managers, and interested public.

**Goal 1:** Sound scientific information is available to support ecosystem-based approaches to management and decision-making for the coastal environment.

**Objective 1.1:** Generate information on the biotic and abiotic processes that affect the long-term ecosystem condition and communicate this information to coastal decision-makers.

### Strategies:

- Assess the boundary dynamics and biogeochemical processes that influence the source, transport, fate, exposure, and effects of materials on ecosystem and living marine resource condition.
- Develop models of productivity, effects of estuarine interactions with the shelf system, and sensitivity of the system to variability and change, which can be used in the development of ecosystem-based approaches to living marine resources management.
- Refine the understanding of ecological relationships between living marine resource production in estuaries and tidal creeks, and the quantity and quality of critical habitat areas (e.g., essential fish habitat for state- and federally-managed species).
- Identify the ecological relationship of upland watershed ecosystems on estuarine and coastal ocean productivity (e.g., changes in flow dynamics).
- Identify the causes of and develop mitigation strategies for marine biotoxin production and exposure.

**Objective 1.2:** Integrate baseline data, standards, and key indicators to support ecosystem-based management of land, water, and coastal and ocean resources.

### Strategies:

- Identify relevant baseline data, standards, and indicators of land, coastal, and ocean resources useful in support of ecosystem-based management.
- Identify and assess the cumulative effects on key "indicators" of low-level, sub-chronic exposure to chemical contamination and/or physical changes (e.g., low dissolved oxygen [DO]) to the marine ecosystem.
- Determine the socioeconomic value of coastal and marine resources and ecosystem benefits (e.g., value of coastal wetlands in supporting fisheries and barrier islands in buffering storm hazards).
- Establish partnerships at the local, state, regional, and federal levels to share and make information accessible to a broader population of users.

**Goal 2:** Widespread use by decision-makers of ecosystem-based approaches to managing land, water, and living resources in coastal areas.

**Objective 2.1:** Work with partners to develop and share data products, models, and training activities that support ecosystem-based planning and management approaches.

- Examine and identify ecological interrelationships between upland, river, estuarine, and coastal ocean productivity, transport, and cycling.
- Assess and model pathways and mechanisms for transport of pollutants from the landscape into coastal waters.

 Construct and evaluate the effectiveness of models of coastal ocean processes (e.g., upwelling) and water quality events (e.g., hypoxia) to assist resource planning and management decision-makers.

**Objective 2.2:** Support state and regional coastal and ocean planning, offshore energy development, and ocean observing activities.

### Strategies:

- Support the efforts of the Southeast Coastal Ocean Observing Regional Association (SECOORA) through participation on its Board (on behalf of the Southeast Atlantic Sea Grant College programs).
- Assist the Governor's South Atlantic Alliance (GSAA) as it transitions to an independent, non-profit organization.
- Work with the S.C. Energy Office to foster a policy and regulatory environment conducive to the sustainable development of traditional and alternative sources of offshore energy.
- Work with the South Atlantic Fishery Management Council (SAFMC) on issues related to ecosystem-based management and essential fish habitat.

**Goal 3:** Restored function and productivity of coastal and ocean ecosystems

**Objective 3.1:** Support enhancement and restoration of coastal and ocean ecosystems.

# Strategies:

- Foster effective protection and restoration of coastal and ocean habitats (especially oyster reefs, salt marsh) through the development of demonstration projects and use of new approaches and technologies.
- Facilitate stakeholder-driven and community-based approaches to habitat enhancement and restoration.
- Encourage implementation of science-based restoration, incorporating the evaluation of restoration efforts through the comparison of metrics across habitats.
- Support research, education, and outreach programs that seek to prevent, remove, repurpose, and dispose of marine debris.

**Objective 3.2:** Develop and provide new information, methods, and technologies that help minimize the introduction, spread, and negative impacts of coastal and ocean invasive species.

- Working collaboratively with regional partners, assess and mitigate the impacts of invasive species on coastal ecosystems and human communities.
- Assess the impacts of reduced water quality and quantity on coastal ecosystem biodiversity and support efforts to mitigate these impacts.

# **Anticipated Outcomes**

- Baseline data, standards, and indicators developed by the Consortium and its partners are used to support ecosystem-based approaches to management.
- Models are made available to and used by the scientific community and natural resource agencies to assess and predict coastal and ocean processes (e.g., water quality).
- South Carolinians are more knowledgeable about the natural processes that influence South Carolina's estuaries and coastal ocean waters.
- Science-based information is provided to natural-resource managers and decision-makers to support national, regional, state, and local resourcemanagement objectives.
- Economic valuation of resources is performed based on priority needs.
- Coastal South Carolina property owners and communities are aware of the problems associated with invasive species such as *Phragmites* and lionfish.

# Performance Measures and Four-year Targets

- Number of communities that incorporate results of Consortium research to address habitat management goals.
  - 0 5
- Number of tools and technologies developed with Consortium support for use in ecosystem-based management, habitat restoration applications, and economic valuation.
  - 0 2
- Number of ecosystem "indicators" developed through Consortium support.
  - 。 2
- Number of scientific, technical, and educational products produced by Consortium related to healthy coastal ecosystems and aquatic invasives.
  - 。 20
- Attendance at Consortium-sponsored ecological services workshops and information events.
  - o 120
- Number of management policies developed by state natural resource agencies as a result of work supported through Consortium.
  - 0 2
- Number of website downloads of coastal and ocean landscape-related pages and products.
  - 0 750,000
- Number of information requests for coastal and ocean landscape-related projects and products.
  - 0 876

### II. SUSTAINABLE COASTAL DEVELOPMENT AND ECONOMY

Population growth along the South Carolina coast is increasing at a rapid rate, with approximately 700,000 new residents expected to move to coastal South Carolina by 2025. This has and will continue to result in an explosion of residential and

commercial development and concomitant pressures on the state's coastal and marine resources. Several examples of this growth highlight the magnitude of change that will occur in coastal South Carolina. Some 135,000 housing units are planned and will be constructed in the Charleston metropolitan region. The small Town of Bluffton, current population of 12,500 (based on 2010 census data), expects its population to increase to 62,000 based upon the number of planned units. Recent growth projections in Jasper County, based on approved developments, estimate that 31,000 acres will be developed and bring over 150,000 new residents to the county in the next 20 years (based on a 2007 Clemson University study), a more than six-fold increase over the current population.

Coastal resource management and economic development issues in South Carolina continue to challenge coastal zone planners, resource managers, developers, and those involved in commerce, industry, recreation, and tourism. The Consortium plans to continue to examine coastal development and management issues and explore sustainable economic development opportunities in cooperation with state and local management agencies and coastal resource users. In this way, the needs of the state and region will be served simultaneously in terms of decision-making, planning, and assessment related to all facets of coastal development. The coastal-dependent economy in South Carolina includes a wide variety of businesses including commercial fishing, recreational fishing, aquaculture, tourism, and future endeavors such as energy development.

Traditional, water-dependent uses of coastal waterfront property are drastically changing as more of the U.S. population moves to the coast, and pressure for 'highest and best use' development increases. For example, commercial fishermen are finding it difficult to find and afford docking space, fuel, and ice. Sustaining traditional working waterfronts and balancing the changing needs of coastal communities is a challenge for individual property owners, commercial/recreational fishermen, developers, and resource managers. Solutions are needed to help preserve the historical profiles of coastal communities while allowing for community-driven economic development.

Offshore energy development is becoming a consistent topic of discussion. Two of the prominent discussions have been directed towards the development of wind energy and oil and gas exploration. The private energy sector is engaged in discussions about the potential for offshore wind energy development in the coastal ocean of South Carolina, and yet we have little foundational information about the environmental and societal issues that may arise as this potential is realized. Additionally, for years, the information available stated that the South Carolina coastal ocean was not suitable for gas or oil extraction; however, new information has indicated that it may have significant natural gas reserves. In addition, the ability to extract these resources has been limited by Federal policies which are currently being re-evaluated. Therefore, the prospect for gas and oil exploration and eventual extraction are raising expectations and related questions regarding coastal access and support, and economic and environmental sustainability.

The focus of this program area is to provide information through the Consortium's research and outreach programs that document the impacts of land use change and coastal and ocean resource development on marine and coastal resources, and address production and resource economics, policy, law, regulation, preservation, and development of coastal resources in support of a balanced resource—based economy, environment, and society.

#### Issues

- Traditional uses of coastal waterfront property are drastically changing as more of the U.S. population moves to the coast. Sustaining traditional working waterfronts and balancing the changing needs of coastal communities is a challenge for coastal communities and decision-makers.
- User conflicts over public access to beaches and waterfront areas are increasing as more property is privately developed. There are policy implications related to the private use of public trust resources (e.g., marinas, dockominiums, conservation leases) and user conflicts (e.g., private and commercial uses of public trust resources).
- Recent interest among many sectors in the potential for energy development (e.g., oil, gas, wind, wave, and current) offshore of South Carolina has raised a series of environmental, economic, and land use questions.
- The effects of ever-increasing coastal development and related pressures on the state's coastal and marine resources, and its aging infrastructure, remain poorly understood, and thus challenge communities as they cope with landuse planning decisions.
- The lack of direct cause-and-effect information on how marine ecosystems may be affected by human activities restricts the use of science in decisionmaking processes.
- The economic and societal value of South Carolina's coastal resources and the ecosystem services (i.e., their benefits and functions) that they provide are not well documented. This information is critical if appropriate use and protection of these resources and services are to continue.
- The need to accommodate a robust coastal recreation and tourism industry within a healthy coastal ecosystem is a challenge for coastal communities.

**Vision:** Decision-makers balance growth and resource conservation by applying ecosystem science-based information and management tools and techniques to problems related to demographic and land-use changes.

<u>Goal 1</u>: Healthy and viable coastal communities and economies that include robust working waterfronts, abundant recreation and tourism opportunities, and coastal access.

**Objective 1.1:** Provide information and tools to coastal communities to enhance waterfront-related economic opportunities (e.g., commercial and recreational fishing, aquaculture, tourism, and energy and port development) without diminishing the long-term health of the natural coastal environment.

### Strategies:

- Characterize the socio-economic and demographic factors that impact South Carolina's traditional coastal economic activities and identify options for sustaining these uses.
- Support the development of economically-viable and environmentallysustainable recreation and tourism practices and operations.
- Develop and apply models in collaboration with decision-makers of how climate variability and change may affect working waterfronts.
- Design and deliver outreach programming to the public on potential uses of the coastal and ocean environment (e.g., offshore sand resource management and offshore energy development).

**Objective 1.2:** Support local, state, regional, and national efforts to preserve and increase public access to the South Carolina's beaches, waterfronts, and waterways.

# Strategies:

- Evaluate the public policy and legal dimensions of submerged lands use and management and ocean planning.
- Develop and/or provide coastal communities with planning and policy tools to evaluate current and future coastal access needs.
- Foster a coastal community network to aid in information exchange with regard to coastal access and working waterfront issues and initiatives.

<u>Goal 2</u>: Coastal communities make effective use of land, energy, and water to conserve the resources needed to sustain coastal ecosystems and quality of life.

**Objective 2.1:** Work with federal, state, and local partners to develop and disseminate assessment tools, model plans and ordinances, best management practices, alternative development approaches, and other techniques that will enable the citizens to develop coastal economies in environmentally-sound ways.

- Assess and develop practical and realistic models that predict and forecast the impacts of land use change and practices on coastal watersheds (e.g., rivers, estuaries, salt marsh, tidal creeks) and the resources therein.
- Evaluate the effectiveness, efficiency, and durability of stormwater management techniques, including existing and sustainable development practices, and inform target audiences, such as individual landowners, of the results.
- Inform community leaders, decision-makers, and staff about land use planning and non-point source pollution control alternatives that address impacts on coastal and marine resources.

Identify and evaluate regionalized approaches to land use, watershed, and coastal ocean planning to support integrated community and economic development projects.

**Objective 2.2:** Assist coastal communities to determine the carrying capacity of their land, water, and energy to enhance and better inform community resource management decisions.

# Strategies:

- Communicate research and information related to land-use change and population growth impacts on coastal and ocean ecosystems to coastal communities to support decision-making.
- Develop tools that illustrate possible changes in land use and land cover in response to projected population growth.
- Identify, test, and deliver local and regional information on the effectiveness, efficiency, and durability of watershed planning and management techniques to control nonpoint source pollution.
- Generate and distribute information, management tools, and technologies on beach, marsh, and dune systems that can help communities to manage coastal environments for recreation, tourism, and other uses.

<u>Goal 3</u>: State and local decision-makers possess the knowledge about the complex inter-relationships among the social, economic, and environmental characteristics of the state's coastal ocean (offshore) environment, and the tools necessary to manage emerging uses and optimize economic and environmental sustainability.

**Objective 3.1:** Document the ecological, economic, policy, and societal implications of offshore energy development (e.g., oil, gas, and wind) on the South Carolina coastal landscape.

## Strategies:

- Identify offshore energy issues, policies, technologies, infrastructure needs, and impacts.
- Communicate science-based information on offshore energy development to communities in South Carolina.
- Continue engagement on issues of energy development through the Regulatory Task Force of the South Carolina Energy Office and other efforts (e.g., BOEM Task Force).

### **Anticipated Outcomes**

- Traditional working waterfront uses become a prominent subject in the public dialogue on waterfront development.
- South Carolinians and decision-makers are more knowledgeable about the "cause-and-effect" impacts and influences of humans on South Carolina's estuaries and coastal waters.
- Existing population growth and land-use change models are refined and improved.

- South Carolina decision-makers understand the impacts of development on coastal and ocean resources and develop strategies to address them.
- Regional approaches are incorporated into coastal land-use/watershed planning efforts by local governments.
- Decisions related to offshore energy and ocean uses and planning are addressed at a regional scale using science-based information.

# Performance Measures and Four-year Targets

- Number of communities that incorporate strategies to maintain and enhance working waterfronts.
  - 0 2
- Number of scientific, technical, and educational products produced by Consortium related to sustainable coastal communities.
  - 0 28
- Number of coastal communities engaged in planning and development activities that address economic and environmental sustainability.
  - 0 15
- Number of coastal communities who have adopted and/or implemented economically and environmentally sustainable development practices and policies.
  - 0 5
- Number of regional ocean governance initiatives fostered by the SC Sea Grant Consortium.
  - 0 1
- Number of website downloads of sustainable coastal development and economyrelated pages and products.
  - 0 1,050,000
- Number of information requests for sustainable coastal development and economy-related projects and products.
  - 0 1,224

### III. SUSTAINABLE FISHERIES AND AQUACULTURE

Historically, South Carolina's commercial fisheries have played an important role in the state's economy, providing jobs and fresh sources of seafood harvested from the abundant waters of the state. Today, the three primary commercial fisheries in South Carolina are penaeid shrimp, blue crabs, and oysters, with a commercial value of \$5,648,848, \$3,407,540 and \$1,241,925, respectively. Since 2001, however, the influx of imported seafood products, particularly shrimp and swimming crabs, has dramatically changed the face of the domestic seafood industry. With a rise in imports and the high cost of fuel and labor, the domestic commercial shrimp and blue crab industries experienced a significant economic downturn. Additionally, these ailing industries suffered from a decline in seafood industry-related infrastructure that is necessary to maintain viable commercial fishing operations. Seafood processing plants, ice plants, cold storage facilities, and commercial dock space have all been in decline over the past 10 years due to changes in the market place and catastrophic natural hazard events in the form of

hurricanes. All of these factors have combined to form what is often dubbed "The Perfect Storm" for the domestic seafood industry. These challenges have brought about the need to develop innovative methods and rapid response programs for the commercial seafood industry to assist them in effectively adapting to the continually changing environment and marketplace.

While the commercial industries struggle with increasing regulation, competition from imports, low domestic prices, rising operational costs, and changing land use patterns, the role of recreational fisheries in the tourism economy has grown. There has been an increase in population along our coasts which has placed unprecedented pressure on our living marine resources. South Carolina's inshore and offshore recreational fishing industries contribute significantly to the local, state, and tourism economies. As more people retire to the coast, recreational boating and fishing has moved to the forefront as one of the largest economic drivers in South Carolina. The need for targeted programs dealing with living marine resource management and conservation has arisen out of this coastal growth pattern. These issues are also connected to non-traditional coast-dependent businesses that are forming to meet the growing recreational needs of coastal residents, such as charter fishing, eco-tour operations, and kayaking businesses.

The South Carolina aquaculture industry is diverse and, unlike other southern states, marine aquaculture produces greater farm-gate receipts than its freshwater counterparts. The South Carolina shellfish aquaculture industry, after progressing through its many developmental iterations, is now the largest sector of the aquaculture industry in the state with an over \$8 million farm-gate value. Clam and oyster hatchery, nursery, and grow-out comprise more than 50% of the state's aquaculture production value. Furthermore, grow-out is conducted on permitted state bottoms, and growth potential exceeds other marine species requiring high priced waterfront property in the near term. The aquaculture industry has also been threatened by disease, competition from overseas imports, and concerns with regulations.

The focus of this program area is to generate and disseminate information through research, education, and extension on the development of sustainability in the fisheries and aquaculture sectors. In particular, the development of viable and sustainable marine fisheries (commercial and recreational) practices and operations, dynamics and processes for the development of ecosystem-based approaches to fisheries management, innovative practices to foster sustainable aquaculture of shellfish, and restoration programs to enhance fisheries populations are significant areas of interest.

#### Issues

 Fishery managers, scientists, fishermen, and citizens must be prepared to take a pro-active approach to addressing economic and environmental threats to wild fisheries, water-dependent industries, coastal landscapes, beaches, and humans.

- The changing global marketplace has forced many fishermen to seek alternative selling and marketing practices or to simply exit the fishery.
- The era of managing single species in fisheries has progressed into a holistic and comprehensive strategy of ecosystem-based approaches to fisheries management that include the interactions of multiple species, habitats, and humans. The complexity of these management approaches proves to be challenging and will need innovative techniques that incorporate both natural sciences and human dimensions (e.g., socio-economics).
- As wild fish populations continue to be exploited and sustainable fishing and management practices are still being developed, there is a potential for the development of marine aquaculture practices to offset the loss of wild stock harvests (e.g., shrimp). There is, however, the potential for negative impacts of aquaculture development on the natural environment and there will be a need to develop environmentally sustainable aquaculture practices (e.g., offshore aquaculture).
- Throughout the course of history, humans have impacted natural environments and as a result fisheries and their associated habitats may experience negative impacts (e.g., decline in fisheries). Restoration efforts, both habitat and stock, are critical to offset human and environmental impacts.

**Vision:** Sustainable fisheries and aquaculture in the coastal region compatible with changing demographics, business development, regulatory environments, and long-term conservation of natural and cultural resources.

<u>Goal 1</u>: Sustainable fisheries and aquaculture that balance the ecological needs of the resource and socioeconomic needs of communities.

**Objective 1.1:** Support the identification and development of innovative fisheries management strategies and other approaches to minimize natural and human threats to the long-term viability of wild fish populations.

#### Strategies:

- Improve knowledge of the linkages among fisheries populations in support of ecosystem-based management.
- Understand the relationships between fisheries production in estuaries and the quality of habitat.
- Document the dynamic short-term and long-term processes (e.g., climate, circulation) that regulate fisheries (finfish and shellfish) recruitment and migration patterns.
- Enhance and facilitate communication between commercial and recreational fishermen and among state fisheries managers and policymakers, non-governmental conservationists, and fisheries scientists.
- Disseminate information about natural and human threats to the longterm viability of wild fish populations.

**Objective 1.2:** Support a sustainable domestic aquaculture industry.

# Strategies:

- Support the development of economically viable and environmentally sustainable aquaculture practices and operations at a variety of scales, with an emphasis on shellfish aquaculture.
- Evaluate and assess the environmental and economic feasibility of stock enhancement programs for key commercial and recreational fisheries in South Carolina.

**Goal 2**: A healthy domestic seafood industry that harvests, produces, processes, and markets seafood responsibly and efficiently.

**Objective 2.1:** Assist the seafood industry in understanding fisheries and aquaculture regulations and policies, how the management and policy processes work, and how it can effectively participate in those processes.

## Strategies:

- Assist the seafood industry in developing cooperative research projects to address key data collection, management strategies and policy issues.
- Work with the aquaculture industry, state and federal agencies, and other interested parties to document the current regulatory environment for marine aquaculture in South Carolina, and to inform the policy and regulatory dialogue.

**Objective 2.2:** Develop new products and innovative marketing approaches to increase seafood availability and profitability.

### Strategies:

- Enhance the economic viability of South Carolina seafood producers through partnerships that support local direct sales and marketing, including Community Supported Fisheries, cooperative marketing and web-based initiatives (i.e., MarketMaker).
- Improve the capacity of South Carolina seafood businesses to meet the buying, packaging, delivery, and legal needs of buyers through market-ready training.

### **Anticipated Outcomes**

- The fisheries community has an increased understanding of fisheries ecology, fisheries management strategies, and the regulatory process.
- The fisheries community participates in cooperative research leading to a greater awareness of more sustainable fisheries practices.
- The South Carolina seafood industry is using marketing tools to optimize direct sales.
- Improved communication, understanding, and collaboration are developed among commercial fisheries stakeholders, managers, and scientists.
- State and federal fisheries managers use Consortium information in essential fish habitat and marine protected areas management.

- Aquaculture and fishing industries are economically stable, environmentally sustainable, and diverse.
- Innovative shellfish aquaculture and restoration strategies are evaluated, tested, and implemented.

### Performance Measures and Four-year Targets

- Number of new and/or enhanced industry and management partnerships.
   3
- Number of scientific, technical, and educational products produced by Consortium related to safe and sustainable seafood.
  - 0 20
- Number of fisheries and seafood businesses which adopt and implement responsible harvesting and processing techniques and practices.
  - $\circ$  10
- Number of seafood producers and retailers educated about and adopted local, direct sales techniques to enhance market competitiveness.
  - 0 35
- Number of seafood industry members that received technical assistance from S.C. Sea Grant extension
  - o 50
- Number of state and federal fisheries managers engaged in planning and developing activities and strategies that address essential fish habitat and marine protected areas management.
  - 0 10
- Number of new SC shellfish aquaculture producers.
  - 0 6
- Number of website downloads of sustainable fisheries and aquaculture-related pages and products.
  - 0 450,000
- Number of information requests for sustainable fisheries and aquaculture-related projects and products.
  - 0524

### IV. HAZARD RESILIENCE IN COASTAL COMMUNITIES

Coastal regions of the United States continue to attract residential, commercial, and industrial development. More than half of the country's population resides within 50 miles of the coastline and that percentage is expected to continue to increase. Many residents who have moved to the coastal zone have done so within the last three decades and are not experienced with the associated hazards as they exist on an assortment of temporal scales and threat levels. Event-scale hazards such as coastal storms and interannual events like drought or long term weather alterations in response to gradual climate change are all threats, but have varying temporal scales. In addition to atmospheric hazards, the constant threat of the ocean's impact on the beach is evident in the dynamic shorefront due to erosion, accretion, and inlet and barrier island migration. Planning for these coastal hazards that range from the short-term (6 to 12 hour) storm surges, rip currents and wind and

erosion events to the slow but pervasive rise in sea level, land subsidence, and resultant shoreline retreat over a period of decades becomes a major concern for coastal residents.

South Carolina is vulnerable to most known natural hazards, including rip currents, tornadoes, fires, hurricanes, flooding, drought, heat waves, shoreline change, and earthquakes, each of which has the potential to cause loss of life and substantial damage to the residential, economic, and natural coastal communities.

Additionally, a modest increase in sea level would have profound impacts on low-lying and minimal-relief landscapes in coastal South Carolina; areas presently subject to short-term storm events and spring tides that significantly affect natural systems. When global phenomena are superimposed on these hazards, the range of possible impacts is exacerbated and includes increased vulnerability to coastal storms, more frequent and severe flooding, accelerated erosion of ocean and waterfront areas, saltwater intrusion of surface and groundwater supplies, marsh destruction, and habitat alteration. While their occurrence cannot be prevented, there is much that can be done to minimize exposure to these damages and facilitate recovery processes.

To minimize the exposure and facilitate recovery, attention to both the natural environment and human infrastructure are required. When severe storms threaten large portions of the coast, infrastructure often accounts for most of the damage, and the individuals, families, communities, and businesses that it supports suffer severe social and economic disruption. In addition to the direct impact the storms may have in altering the natural environment, the resultant wide-spread damage to infrastructure can also result in severe environmental degradation through debris deposition and the release of toxic materials.

The focus of this program area is to provide science-based information through research, technical, and educational programs that examine natural hazards and their effects on physical infrastructure, the natural environment, society and people, including the influence that long-term climate patterns may have on influencing the severity of these hazards. The Consortium will also provide information to the public and private sectors on the nature of these diverse hazards and the appropriate methods to mitigate their impacts and facilitate recovery.

### Issues

- South Carolina has exposure to most known natural hazards. These hazards have the potential to cause substantial risk to natural habitats, public health, safety, infrastructure, private property, and the economy.
- Hurricane Hugo (1989) was the last significant hurricane to make landfall in South Carolina, causing approximately \$7 billion in damages. Recent hurricanes and tropical storms such as Katrina, Ike, and Irene raised awareness in America about the reality of coastal risk and vulnerability, and the need to plan for the mitigation of damages, timely response, and speedy recovery.

- As hurricanes from Hugo through Irene have demonstrated, hazards have a broad impact on every sector of a community – physical, economic, and social. There is a need to broaden the scope of hazards management to engage all of these sectors in a community-wide approach to hazards resiliency.
- There is a continuing need for hazards research and outreach to help those who plan for and manage hazards, those who design, build, insure, and regulate the development of infrastructure, and to aid policy makers at all levels to better understand the impacts of coastal hazards.
- Many buildings, especially residential homes and small commercial structures, continue to be especially vulnerable to hazards. Research is needed to develop and evaluate innovative construction-oriented hazards mitigation techniques for residential and commercial structures and infrastructure.
- Efforts to reduce greenhouse gases will not change the global warming trends for several decades. Greenhouse gas reductions will not address factors like land-use change that also influence local scale climate variability and change. In the short term, adapting to climate variability and mitigating the long-term effects of climate change is and will be a challenge for coastal communities.

**Vision:** Coastal residents, communities, and businesses understand the risks and vulnerabilities associated with both chronic and episodic coastal hazards, and are prepared for and able to recover from these hazards with minimal disruption to social, economic, and natural systems.

**Goal 1:** Widespread community understanding of the risks associated with living, working, and doing business along the South Carolina coast.

**Objective 1.1:** Increase the base of scientific knowledge regarding hazards and the associated risks and impacts for citizens, industries, and decision-makers in coastal communities in South Carolina.

- Assess the effects of event-scale hazards, short-term weather, and long-term climate change on the coastal communities of South Carolina.
- Assess risk perception of key audiences specific to hazards in South Carolina to inform human response and improve communication
- Develop information on cost-effective, structurally sound hazardresilient building siting, design, and construction.
- Evaluate the effects of hazards on estuarine and tidal marsh shorelines (non-beachfront), including the impacts from hardened structures.
- Conduct economic analyses of hazard mitigation incentives, including market, insurance, and tax and regulatory incentives, as possible motivators for public and private mitigation measures.

**Objective 1.2:** Disseminate science-based information to improve community capacity to prepare for, adapt to, mitigate, and recover from hazards.

# Strategies:

- Use data analysis to develop hazard mitigation planning tools for coastal communities.
- Conduct community-scale analyses of the vulnerability of South Carolina's infrastructure, resources, and people to hazard events.
- Develop and convey scenarios for hazard preparation, adaptation, mitigation, and recovery to reduce the negative impacts and increase any benefits to communities.
- Develop and apply decision-support tools that enhance local community awareness, mitigation and adaptation planning.
- Provide technical assistance to apply risk perception and risk communication research, and best practices to improve response and communication about risk before, during, and after a hazard event.
- Convey science-based information to resource management agencies and the public on direct impacts that hazards can have on property.

<u>Goal 2</u>: Public and private decision-makers create and adopt policies, plans, and ordinances to reduce risks, manage hazard events, and speed recovery.

**Objective 2.1**: Facilitate the use of science-based research outcomes in the implementation of adaptive hazard management at varying governmental levels.

### Strategies:

- Establish and maintain partnerships to develop and identify effective standards and metrics for assessing hazard resiliency.
- Develop interdisciplinary approaches to hazards that integrate findings from social and natural science to support effective policy and management decisions at all levels of government.
- Implement public education programs on short- and long-term climate variability and long-term hazards (e.g., sea level rise).
- Generate and deliver information materials on the risks of chronic and episodic events (e.g., rip currents) and hazard impact reduction practices (e.g., signage) to enhance community preparedness.

**Objective 2.2:** Generate and distribute information, management tools and technologies on beach, marsh, and dune systems that can help communities prepare for and mitigate the impacts of shoreline changes.

### Strategies:

 Assess and predict long-term and episodic trends in beach change accounting for anthropogenic responses (e.g. nourishment, hard structures, and dune alterations).

- Establish and evaluate model criteria necessary to determine the efficacy of beach nourishment programs.
- Deliver outcomes of assessments to both decision-makers and the community-at-large.
- Identify and convey information to coastal communities about beach nourishment options, including permitting and funding issues.

# **Anticipated Outcomes**

- Coastal communities increase their awareness of socio-economic, structural, and natural resource impacts of hazards.
- Hazard mitigation and adaptation techniques are developed and used in response to changing conditions in hazard-prone areas.
- Data visualization and decision-support tools provide communities with pertinent, comprehensive, and timely information for planning and response.
- Coastal decision-makers have the capacity to incorporate science-based data and information in hazard planning and response efforts.
- Data and results are readily available to and usable by scientists, emergency managers, first responders, citizens, and policymakers.
- State and federal resource management agencies in South Carolina are utilizing shoreline change information in management and policy decisionmaking.

# Performance Measures and Four-year Targets

- Number of coastal communities and resource managers provided with information and/or trained in hazard resiliency, mitigation tools, techniques, and best practices.
  - 0 10
- Number of coastal communities that have implemented hazard resiliency practices.
  - 0 4
- Number of tools and technologies developed with Consortium support for use in short-term hazards and long-term climate change applications.
- Number of scientific, technical, and educational products produced by Consortium related to hazard resiliency in coastal communities.
- Miles of South Carolina beaches surveyed to assess erosional/accretional patterns and risk to property and infrastructure.
   110
- Number of website downloads of hazard resilience-related pages and products.
   150,000
- Number of information requests for hazard resilience-related projects and products.
  - 0 176

### V. SCIENTIFIC LITERACY AND WORKFORCE DEVELOPMENT

The **scientific literacy program component** of this Focus Area provides quality coastal and marine information reflective of current research to K-12 students, informal and formal educators, and the general public. Careers in ocean sciences, as well as STEM (science-technology-engineering-math) disciplines, are highlighted during program planning and delivery. Through professional development programs for formal and informal educators, community action projects, and robust classroom lessons aligned with South Carolina State Science Standards and the national Ocean Literacy Essential Principles, the Consortium provides access to resources and training that facilitates the inclusion of marine, coastal, and natural resources information in the classroom and at informal science education centers such as aquariums, science centers, and museums.

Program efforts include the development and implementation of strategies and products that provide ocean and coastal information to formal and informal educators, K-12 and college students, and the general public concerning sustained use, conservation, and management of coastal and marine resources. A well-informed constituency has proven to be essential for balanced coastal and marine resource management and economic growth. Education and stewardship were identified by an earlier constituent survey as being very important, particularly innovative curricula and programs for K-12, professional development opportunities for K-12 teachers, and environmental literacy of coastal residents and visitors.

Workforce development efforts are geared towards providing research and training opportunities for undergraduate and graduate students through Consortium-funded research projects. With more than one-half of the marine-related federal work force eligible for retirement within the next five years, the continuing emergence of new marine technologies and discoveries, and the increasing pressures on the nation's coastal and ocean resources due to population growth, the need for highly qualified and adequately trained professionals will continue to increase. Furthermore, the Consortium will continue to assist with the diversification of the ocean-based work force by promoting ocean and coastal related careers to under-represented groups.

#### **Issues**

- South Carolina state standards for innovative science learning curricula do not identify ocean sciences as being relevant.
- Few long-term supported STEM based training opportunities and programs exist for K-12 students and teachers.
- When compared to national scores, South Carolina consistently ranks lower on standardized science test score rankings than other states.
- There is a need to engage early career higher education faculty and graduate, and undergraduate students in Sea Grant research and fellowship opportunities.
- Diverse populations are under-represented in the ocean sciences workforce.

- A workforce unprepared for practical work results from a lack of technical skill development.
- Students need early exposure to and experience manipulating authentic, large data sets to be able to navigate in the data-rich environments of the ocean sciences workforce.
- Undergraduate students do not understand regulatory processes due to a lack of integrated research and policy at this level.
- The future of the conservation and management of our coastal resources depends upon a robust effort to foster stewardship and increase public awareness about the societal value and ecological function of South Carolina's coastal resources.

**Vision:** A scientifically literate public, at youth and adult levels, understands the value and vulnerability of coastal and marine resources, makes wise decisions regarding these resources, and supports the development of a well-trained and diverse workforce in coastal and marine related careers.

**Goal 1:** Coastal and ocean K-12 education programs foster scientific literacy, stewardship, and exposure to STEM-based careers in both formal and informal settings.

**Objective 1.1**: Design, implement, and/or enhance K-12 ocean and coastal resource educational programs that focus on STEM disciplines and align with Ocean Literacy Essential Principles and South Carolina Science Standards.

# Strategies:

- Deliver existing K-12 marine science educational lessons and program support materials that align with state education standards.
- Leverage existing and develop new educational resources that reflect the current Consortium research and outreach agenda to further the implementation of Sea Grant's K-12 educational programs.
- Align and develop programmatic areas that support the seven Ocean Literacy Essential Principles.
- Establish stronger connections between Consortium-led educational activities and Consortium-funded research projects.
- Introduce K-12 students to opportunities in higher education, to begin linking early education to workforce development.

**Objective 1.2:** Design, implement, and/or enhance professional development opportunities for educators that provide content and resources for incorporating ocean sciences concepts.

- Coordinate professional development opportunities focused on relevant Sea Grant research topics.
- Offer professional development opportunities to incorporate STEM and ocean science topics into the classroom.

 Provide opportunities for scientist-educator collaboration in research and education.

**Objective 1.3:** Design, implement, and/or enhance stewardship-focused programs, including student-action and community action projects.

### Strategies:

- Develop community-based, student action environmental programs that focus on coastal issues and serve the community-at-large.
- Engage the general public and communities with student-action projects.
- Develop public and social media outlets to promote programs and projects.

**Goal 2**: Coastal and ocean education programs foster the development of a scientifically trained workforce.

**Objective 2.1:** Undergraduate and graduate populations are trained to meet workforce needs in ocean sciences fields.

# Strategies:

- Encourage the involvement of new faculty, professional staff, and students in Consortium-supported programs and activities.
- Provide research, education, and training experiences in coastal and marine research to graduate and undergraduate students at South Carolina universities and colleges.
- Offer educational and professional development opportunities for outstanding South Carolina undergraduate and graduate students through national fellowships.
- Offer education and professional development opportunities for outstanding South Carolina university students through in-state internships (Consortium, private industry, NGOs).
- Assess, predict, and communicate current and potential workforce needs and opportunities in the southeast.

**Objective 2.2**: Support the development of a diverse workforce.

# Strategies:

 Implement strategies to recruit and retain underrepresented and underserved (UR/US) groups into the coastal and ocean sciences at the college/university level.

**Goal 3:** Improve public understanding about the coastal and marine environment and related community issues.

**Objective 3.1**: Provide engagement opportunities for adult learners.

- Engage adults in local discovery and stewardship activities.
- Inform local constituencies of research relevant to their communities.
- Collaborate with formal and informal institutions to develop new or enhance existing programs, exhibits and outreach designed for the general public and families.
- Develop public and social media outlets to extend products and programs.

# **Anticipated Outcomes**

- K-12 educational materials, including curricula, are developed and promoted by the Consortium.
- K-12 educational materials developed through the Consortium are being used in classrooms and at informal education facilities throughout South Carolina.
- Formal and informal education communities are engaged in stewardship projects.
- Cultivation and engagement of young and new faculty are supported through the Consortium.
- Graduate and undergraduate student training continues to be a priority for Consortium-supported research projects.
- South Carolina graduate and undergraduate students successfully compete for national and state fellowship and internship opportunities.
- Cultivation of culturally diverse undergraduate and graduate students to pursue ocean science careers.
- Coastal Heritage Curriculum Connection is accessed by formal and informal educators.

### **Performance Measures and Four-year Targets**

- Number of new or revised educational materials developed and promoted by the Consortium
  - 0 20
- Number of K-12 teachers using Consortium-based scientific information and educational products in their classrooms.
  - 0 400
- Number of K-12 educators participating in professional development opportunities.
  - o 200
- Number of informal education facilities using Consortium-based scientific information and educational products.
  - o 50
- Number of informal educators participating in professional development opportunities.
  - 0 100
- Number of formal and informal education communities (i.e. schools, museums, aquariums) engaged in stewardship projects.
  - 。 75
- Percentage of new/junior faculty supported by Consortium.
  - 0 20
- Number of graduate/undergraduate students supported by Consortium.

- 0 100
- Percentage of graduate and undergraduate students who apply and are selected for national fellowships and internships.
  - 50
- Number of website downloads of scientific literacy and workforce developmentrelated pages and products.
  - 0 600,000
- Number of information requests for scientific literacy and workforce development-related projects and products.
  - o 700

### **Management Areas**

Three management areas are identified as priorities for the Consortium over the next four years:

- 1. Planning, Program Management, and Overall Performance
- 2. Connecting with Users
- 3. Human Resources

## I. PLANNING, PROGRAM MANAGEMENT, AND OVERALL PERFORMANCE

The development and success of our Programmatic Areas is contingent on the success of our planning, program management, and overall performance. These serve as the foundation of effective and efficient programs.

The Consortium identified priority coastal and marine resource needs through its strategic planning process. These needs will be addressed through research, education, communication, and extension programs. The strategic plan will also help to solicit and secure funding to support these activities and to generate and provide resultant information to the agency's stakeholders in forms that they can use (covered in the Connecting with Users area). To ensure that Consortium activities are consistent with public needs and are of high quality, the Consortium:

- Conducts strategic planning every four years and implementation planning every two years,
- 2. Employs a rigorous peer review and evaluation process of all proposals submitted to the agency for support,
- 3. Solicits formal evaluations from all Consortium conferences and workshop participants, and
- 4. Is formally evaluated by the NOAA National Sea Grant College Program Office through its Program Assessment process every four years.

Program management and accountability are important components of the success of the South Carolina Sea Grant Consortium. The Consortium must manage its program in accordance with State of South Carolina requirements as well as those of the National Sea Grant College Program. Therefore, the Consortium is accountable to both programs and receives both internal (state) and external (federal) evaluations of its programs and finances. Strategic Planning, National

Program Assessments (PATs), State Accountability Reports, State and Federal audits, and other reporting are all part of these reviews.

#### Issues

- The Consortium depends on its annual state appropriation to support many operational and management functions, which also serves as matching funds for the core Sea Grant program. These funds must be justified on an annual basis before the South Carolina General Assembly, and any request for increased funding comes under more scrutiny.
- Consortium programs are supported through the successful acquisition of competitive grants from federal, state, and other sources of funds (now approximately 90 percent of the agency's total budget). As the competition for federal funding (from ever-decreasing federal discretionary funds) continues to increase, the Consortium must expend additional staff time and energy to successfully secure extramural grant funding.
- The importance of strategic planning has become more critical to the Consortium as demands for Consortium program activities and services continue to increase and many constituencies seek agency assistance; however the resources (human and fiscal) are not there to satisfy all needs for maintaining and expanding the agency's programs and activities.
- The Consortium's success is predicated on its ability to maintain an efficient, timely and responsive administrative and program management capabilities, including a rigorous peer review process for Consortium proposals and good communications with its member institutions.
- Competition for federal and state dollars requires strict accountability and performance metrics.

**Vision:** The Consortium is the best Sea Grant program in the nation and is the most efficiently and effectively managed state agency in South Carolina.

**Goal 1:** Effective planning, financing, and performance efforts in support of the mission and programmatic goals of the Consortium.

**Objective 1.1:** Ensure the programmatic mission of the Consortium is accomplished through planning activities and an efficient administrative and management system which supports its programmatic themes.

- Identify priority areas, engage users, develop programs, and assess proposed priority areas.
- Continually update the Consortium's strategic plan (including performance indicators) and biennial implementation plan based on constituent needs; this requires continued engagement of staff in strategic and implementation planning to ensure revisions are made and indicators are tracked.
- Engage the Consortium's Program Advisory Board in setting overall program priorities and developing strategies for program development.

- Maintain communications with the Consortium's liaisons at the university levels to promote open and viable interaction among university officials, faculty, and Consortium staff.
- Maintain a rigorous technical peer review process for all competitive research, education, and outreach proposals received by the agency.
- Continue the activities of the Consortium management team (Core Group) to facilitate communication and information exchange to set the agency's short- and long-term directions.

**Objective 1.2:** Develop, maintain, and enhance the Consortium's funding levels and financial and reporting system to support the programmatic goals of the research, education, extension, and communications programs of the Consortium.

### **Strategies**

- Adhere to Consortium Board and State leadership directives to maintain, and where possible, enhance state funding.
- Compete for public and private extramural funding in support of Consortium programs and activities to benefit the citizens and state of South Carolina.
- Obtain research and outreach funding through National Sea Grant Core and other National competitions.
- Ensure that the Consortium's accounting and fiscal management procedures meet or exceed federal, state, and local policies, regulations, and guidelines.
- Develop and implement a Consortium-wide Web-based Management Information System (MIS) to track program progress and document performance.
- Prepare annual State Accountability and National Sea Grant Annual Reports.
- Ensure that the most current software and equipment are used to enhance efficient operations.
- Prepare for the external National Sea Grant Program Assessment review.

### **Anticipated Outcomes**

- Strong short- and long-term planning is conducted by agency Core Group with support of the Consortium Program Advisory Board, extension specialist advisory committees, and other user input.
- Viable research and education programs which meet constituent needs are funded through the Consortium.
- Increased levels of both state and non-state financial support to further the Consortium's program goals are obtained.
- A strong and diverse funding base to support Consortium programs, activities, and administrative needs is established.
- Sound fiscal practices are maintained and statewide single agency audits will have no significant findings.

- Annual state and federal accountability reports will document the agency's performance.
- The Consortium will be rated as one of the highest performing Sea Grant College Programs in the nation.

### Performance Measures and Four-year Targets

- State and federal approval of Consortium strategic plan.
  - o 2
- Number of external peer reviews received per proposal.
  - o 4
- Percentage of Sea Grant core research and education proposals submitted to the Consortium that are funded.
  - 0 25
- Percentage of extramural proposals that are submitted by the Consortium that are funded.
  - 0 40
- Return on investment of core Sea Grant funding (percentage).
  - 0 300
- Level of extramural (competitive and otherwise) funding in dollars secured from non-state sources.
  - 0 12,000,000
- Number of significant findings in statewide single agency audit.
  - o C
- Number of approved annual state accountability reports submitted.
  - 0 4
- Rating by the external National Sea Grant Program Assessment process.
  - 0 4

#### II. CONNECTING WITH USERS

The South Carolina Sea Grant Consortium has two ways to connect with users: (1) input from our constituents; and (2) output to our constituents. This two-way communication is imperative to the success of the agency.

The South Carolina Sea Grant Consortium, by definition, continuously and consistently seeks involvement and input from its constituents, its Board of Directors, liaisons at the Consortium's member institutions, and Sea Grant Extension Program Advisory Committees to help shape Consortium priorities and programs. This ensures that our activities are responsive to the needs of the Consortium's stakeholders and allows us to determine:

- 1. Priority needs pertaining to coastal and ocean resources use and conservation;
- 2. Current activities that are underway to address these needs;
- 3. Priority needs that are not being adequately addressed by current activities; and
- 4. Most importantly, specific potential actions that the Consortium can take to address these unmet needs.

In addition to obtaining input from its constituents, the Consortium also provides output to our varied constituents in the form of two primary "products" – program support and science-based information. Linking information "generators" with information "consumers" through feedback mechanisms ensures the timely delivery of research information to a variety of user groups. These interactions manifest themselves in several ways. Sea Grant Extension Program efforts are directed to specific user groups and involves the development and delivery of publications, workshops, and direct contact. Informal education and awareness efforts are also developed for the general public; vehicles for information transfer include brochures, slide shows, group presentations, media interaction, and others.

The agency has no management or regulatory responsibilities. This allows the agency to maintain a non-advocacy role and serve as a neutral third party. The products, activities, and services generated and disseminated by the Consortium are at the request of its constituencies. Consortium funded-research projects also produce quality scientific publications.

#### **Issues**

- One of the primary functions of the Consortium is to identify priority coastal and marine resource needs as mentioned in the Planning, Management and Overall Performance section. To do this effectively requires ongoing interaction with and engagement of its constituents.
- To function effectively, the Consortium must partner with a diverse group of organizations, institutions, and individuals representing universities; federal, state, and local natural resource and economic development agencies; business and industry; state and local governments; community groups; non-governmental organizations; K-12 educational institutions; and others.
- In the world of the Internet, accessibility to information through the Web is an essential addition to more traditional information media. Keeping up with evolving communications technology, for both internal and external communications is, and will be, a significant challenge in the foreseeable future.
- The human landscape of the coast is changing. With coastal growth and development also come demographic shifts. For example, 20 years ago the Hispanic population of the coast consisted mainly of migrant farm workers for the spring tomato harvest. Today Hispanics account for a large segment of the permanent labor force serving the tourism, landscape and other industries. The Consortium must attempt to address the needs of all coastal stakeholders with its programs.
- Science can and should play a role in informing the decision-making process in natural resources policy. To do so requires the collaboration of scientists and resources managers in the identification of research issues, and the extension and communication of research results in forms which can be easily understood and used by decision-makers at all levels.
- According to a 2006 National Science Foundation survey, the public is "science-starved." To promote enhanced coastal stewardship, there is a

- need to release more scientific and technical information to the public in digestible formats.
- Due to the limited availability of resources and the increasing need for public awareness and education programs, the engagement of professionals and citizens alike in volunteer activities must be pursued.
- Overall strategic and policy guidance from outside the agency in the development and continual refinement of the agency's strategic plan is a critical need for the Consortium.

**Vision:** The Consortium is the primary source for applied coastal and ocean resource information in South Carolina.

**Goal 1:** Needs of the Consortium's diverse constituencies throughout the state and region are well-documented and addressed.

**Objective 1.1:** Ensure that issues and needs of those who live and work along the coast are accurately identified.

## Strategies:

- Periodically engage constituents in the identification of coastal and marine resource issues and needs through a range of activities such as surveys and individual contact.
- Periodically engage the Consortium's Program Advisory Board, as representatives of our constituents, in setting overall program priorities and developing strategies for program development.
- Seek programmatic guidance from extension specialist advisory committees.
- Seek programmatic guidance from ad hoc program area advisory groups.
- Maintain and expand partnerships with federal, state and local governments, business and industry, non-Consortium universities, and NGOs.

**Objective 1.2:** Ensure that Consortium programs are effective in providing the necessary science-based information and that this information is delivered to target audiences in a timely fashion and in appropriate formats.

- Produce and distribute quarterly issues of Coastal Heritage magazine, which covers relevant issues pertaining to coastal- and marineresource policy, science, and history.
- Produce and distribute bi-annual issues of *Inside Sea Grant*, a newsletter that reports on the programmatic highlights of the agency, to local, state, regional, and national key decision-maker.
- Enhance the knowledge and awareness of coastal residents and visitors of the value of coastal and ocean resources through Consortium communications efforts.

- Serve as the co-coordinators of the S.C. Beach Sweep/River Sweep litter cleanup program with the S.C. Department of Natural Resources.
- Publicize Consortium-funded research, education, and outreach through print, broadcast, electronic, and web-based media.
- Regularly maintain and enhance the information on the Consortium Web site and ancillary Web sites.
- Produce and distribute electronic and hard copy publications and products, targeted to constituent needs.
- Engage community volunteers in Consortium outreach activities.
- Solicit formal evaluations from Consortium conference and workshop participants.

**Objective 1.3:** Bring diverse perspectives together to facilitate interactions and discourse on critical coastal and ocean issues.

## **Strategies**

- Periodically engage constituents in discussions of emerging issues affecting coastal South Carolina and the region.
- Coordinate multi-investigator partnerships working together to solve critical resource needs.
- Broker resolutions to resource management questions.
- Provide leadership on committees and other forums that seek to resolve coastal and ocean resource challenges.

## **Anticipated Outcomes**

- The problems and needs of those who live and work along the coast are accurately identified.
- Consortium is partnering with a diverse group of organizations, institutions, and individuals.
- Consortium demonstrates leadership and catalytic roles in addressing and resolving coastal and ocean resource issues.
- Consortium information is delivered to target audiences in a timely fashion and user-friendly formats.
- The demand for the Consortium's publications is increased.
- High quality scientific and outreach publications are produced.
- Consortium Web site continues to be a significant source of coastal and ocean information.
- Volunteers are engaged in Consortium stewardship activities, including Beach Sweep River Sweep.
- Consortium activities are covered in mass media outlets.

## Performance Measures and Targets

- Number of Program Advisory Board and Extension Advisory Committees meetings for setting priorities.
  - o 20
- Number of program partnerships.
  - 0 400
- Number of committees/workgroups that Consortium staff lead or participate on.

- 0 40
- Number of Inside Sea Grant and CoastalScience@Work newsletter issues produced and distributed.
  - o 52
- Number of extension workshops and presentations.
  - o 700
- Attendance at extension workshops and presentations
  - 0 18,600
- Number of agency publications and products produced and distributed.
  - o 100
- Number of Web hits.
  - o 5,000,000
- Number of unique visits
  - 000,000
- Number of downloads
  - 0 3,000,000
- Number of professional awards/recognitions for Consortium programs.
  - 0 5
- Number of awards for Coastal Heritage.
  - ∘ 8
- Number of unsolicited information requests.
  - o 3,500
- Number of Beach Sweep/River Sweep coastal site captains.
  - o 100
- Number of Beach Sweep/River Sweep coastal locations cleaned
  - o 125
- Number of Beach Sweep/River Sweep coastal volunteers
  - 0 16,000
- Total value of volunteer hours in dollars
  - 0 697,280
- Number of news releases distributed
  - 0 48
- Number of media placements as a result.
  - 0 800
- Number of unsolicited media placements.
  - 0 80

#### III. HUMAN RESOURCES

The Consortium staff demonstrate excellence both within the agency and among its various partners. This excellence is achieved through dedication, loyalty, industry, and integrity. In addition the Consortium staff also work to demonstrate leadership skills and agency engagement of the agency's diverse stakeholder community. One critical way that this is achieved is through its involvement in leadership roles with a number of public, private, and non-governmental organizations (NGOs). Consortium staff assume key leadership roles in organizations, professional

societies, and activities that advance the mission of the Consortium and the visibility of Sea Grant in the state of South Carolina, which enables it to better serve the needs of its constituencies.

#### Issues

- The Consortium's success is predicated on its ability to maintain a solid administrative and program management capability. The challenge of recruiting and retaining high caliber staff in an environment of static budgets is a significant one that senior management endeavors to address.
- Limited financial resources to support both administrative and program staff present a barrier to effective program administration, as well as program delivery. This is a challenge that must be overcome for the Consortium to continue delivering high quality administrative and program services that support its research and outreach programs.
- The Consortium is a relatively small agency with limited staff resources and seemingly unlimited program opportunities. To optimize the potential of the agency, each staff member "wears many hats" and thus each staff member performs multiple tasks that are critically important to the agency's success.
- Highly qualified, trained and experienced professional and support staff are essential to maintaining high quality administrative and program performance.
- Rapid changes in technology, accountability, etc. require an increasing commitment to provide training opportunities for staff.

**Vision:** The Consortium is fully staffed with professionals of diverse skills to effectively serve the varied interests of our constituencies.

Goal 1: A highly qualified, well-trained, and professionally recognized agency staff.

**Objective 1.1:** Encourage an "environment of excellence" to maintain and hire talented staff and support the development of professional and other skills among the Consortium staff in partnership with other Federal, state, and local agencies and professional organizations.

- Hire highly qualified staff through a rigorous recruitment and selection process.
- Seek partnerships with other organizations to jointly support key management and/or programmatic staff.
- Retain extension specialist staff to effectively provide science-based information to their constituents.
- Enhance skills, capabilities (including the possibility of cross-training), and professional development goals of the Consortium staff through attendance at workshops, seminars, and development events and activities.

- Promote performance excellence through incentive-based efforts and program competition, and encourage staff through staff recognition and awards.
- Encourage staff to become actively involved in professional organizations pertinent to their staff positions (e.g., as committee members, elected officers).

# **Anticipated Outcomes**

- Staff retention is high.
- Staff are well-trained and engaged in internal and external agency activities.
- Staff assume leadership roles within relevant professional institutions and organizations.
- Staff are regionally and nationally recognized by peers and professional organizations.

## Performance Measures and Targets

- Staff retention rates (e.g., FTE/TGE vacancy rate).
  - o **90**
- Number of staff professional development opportunities.
  - 0 90
- Number of program-related state, regional, and community-based committees and task forces populated with Consortium staff and extension specialists.
  - 。 28
- Number of professional awards/recognitions for Consortium staff.
  - 0 10

#### **National Context**

The Consortium is an academically based state agency and a member of the NOAA National Sea Grant College Program (NSGCP) network of 33 Sea Grant College Programs, administered by the National Sea Grant Office (NSGO). The Consortium participates as an active member of the NSGCP network, and continues to be committed to aligning its statewide programmatic activities with those of NOAA and the NSGCP.

NOAA's Next Generation Strategic Plan, released in December 2010, lays out four long-term goals and outcomes for the nation: (1) Climate Adaptation and Mitigation, where an informed society is able to anticipate and respond to climate and its impacts; (2) Weather-Ready Nation, where society is prepared for and responds to weather-related events; (3) Healthy Oceans, where marine fisheries, habitats, and biodiversity are sustained within healthy and productive ecosystems; and (4) Resilient Coastal Communities and Economies, where coastal and Great Lakes communities are environmentally and economically sustainable (<a href="http://www.ppi.noaa.gov/ngsp/">http://www.ppi.noaa.gov/ngsp/</a>). The Consortium's FY2014-17 plan elements fall within the NOAA Mission Goals.

The NSGO is presently completing its National Strategic Plan for 2014-17, which has four Focus Areas: (1) Healthy Coastal Ecosystems, (2) Sustainable Fisheries and Aquaculture, (3) Resilient Communities and Economies, and (4) Environmental

Literacy and Workforce Development. The NSGO is requiring that each state Sea Grant College Program align its plan with the National Plan. The Consortium's Plan has five programmatic areas, which are in very good alignment with the national focus areas; we have decided to maintain two of our thematic areas – Sustainable Coastal Development and Economy and Hazard Resilience in Coastal Communities – that have been combined into one in the National Plan.

The NSGCP Strategic Plan outlines 11 performance measures that are specific to one of the plan's focus areas, and 7 additional performance measures that cross-cut the four focus areas. The Consortium staff has evaluated these measures and identified four-year targets for each of the 17 measures, as follows:

Focus Area/ Cross-cut	National Performance Measure	S.C. Sea Grant Consortium 4-Year Target
Healthy Coastal Ecosystems	Number of Sea Grant tools, technologies and information services that are used by our partners/customers to improve ecosystem-based management.	4
Healthy Coastal Ecosystems	Number of ecosystem-based approaches used to manage land, water and living resources in coastal areas as a result of Sea Grant activities.	2
Healthy Coastal Ecosystems	Number of acres of coastal habitat protected, enhanced or restored as a result of Sea Grant activities.	0
Sustainable Fisheries and Aquaculture	Number of fishermen, seafood processors and aquaculture industry personnel who modify their practices using knowledge gained in fisheries sustainability and seafood safety as a result of Sea Grant activities.	100
Sustainable Fisheries and Aquaculture	Number of seafood consumers who modify their purchases using knowledge gained in fisheries sustainability, seafood safety and the health benefits of seafood as a result of Sea Grant activities.	0
Resilient Communities and Economies	Number of communities that implemented sustainable economic and environmental development practices and policies (e.g., landuse planning, working waterfronts, energy efficiency, climate change planning, smart growth measures, green infrastructure) as a result of Sea Grant activities.	22
Resilient Communities and Economies	Number of communities that implemented hazard resiliency practices to prepare for, respond to or minimize coastal hazardous events as a result of Sea Grant activities.	16
Environmental Literacy and Workforce	Number of Sea Grant facilitated curricula adopted by formal and informal educators.	16

Development		
Environmental Literacy and Workforce Development	Number of people engaged in Sea Grant supported informal education programs.	575
Environmental Literacy and Workforce Development	Number of Sea Grant-supported graduates who become employed in a career related to their degree within two years of graduation.	50
Cross-Cut	Economic (market and non-market) benefits derived from Sea Grant activities.	0
Cross-Cut	Businesses created as a result Sea Grant activities.	6
Cross-Cut	Businesses retained as a result Sea Grant activities.	2
Cross-Cut	Jobs created as a result Sea Grant activities.	10
Cross-Cut	Jobs retained as a result Sea Grant activities.	4
Cross-Cut	Patents derived from Sea Grant activities.	1
Cross-Cut	Number of peer-reviewed publications.	20

#### What is the S.C. Sea Grant Consortium?

The S.C. Sea Grant Consortium (<a href="www.scseagrant.org">www.scseagrant.org</a>) is an independent state agency created in 1978 through Act No. 643, South Carolina Code of Laws, to manage and administer the NOAA National Sea Grant College Program and similar programs for the state of South Carolina and regionally. The Consortium generates and applies science-based information on issues and opportunities to enhance the practical use and conservation of coastal and marine resources to foster a sustainable economy and environment.

The S.C. Sea Grant Consortium became an operating entity in January 1980. With the submission and acceptance of its initial program proposal for Sea Grant support, the S.C. Sea Grant program was designated an Institutional Program that year. In April 1985, application was made to the Secretary of Commerce for Sea Grant College designation; Sea Grant College status was conferred on the Consortium in August 1986 by then-Secretary of Commerce Malcolm Baldrige.

The Consortium develops and supports balanced and integrated scientific research, formal and informal education, extension, communications, and education and outreach programs that are driven and determined by our stakeholders. Programmatic efforts focus on addressing critical issues and opportunities in the five programmatic areas identified in this plan. These programs support economic opportunity (business and jobs), ensure wise use and development of the state's marine and coastal natural resources, and improve the social well-being of those who live, visit, and depend upon South Carolina's coastal and ocean resources.

The Consortium employs a team of extension, communications, and education personnel to identify the information needs of the state's stakeholders and effective

delivery methods, and leverages state appropriations to secure non-state competitive grants to support research and education programs.

# **Consortium Membership**

Institutions that hold membership in the Consortium include Clemson University, College of Charleston, Coastal Carolina University, the Medical University of South Carolina, S.C. Department of Natural Resources, S.C. State University, The Citadel, and University of South Carolina. Consortium institutions provide the expertise of their respective faculty and professional staffs, as well as a wide range of facilities and equipment, necessary to carry out the diversity of programs supported by the S.C. Sea Grant Consortium program. Over the last six years, member institutions contributed over \$2 million in matching funds to the agency.

## **Consortium Organization**

The S.C. Sea Grant Consortium is structured to optimize communication and feedback linkages necessary for the proper development and implementation of its programs. Its offices are headquartered in Charleston, with additional extension agents in Beaufort and Conway. Activities of the Consortium are governed by authorizing committees of the S.C. General Assembly and a Board of Directors to which the Executive Director reports. The Board of Directors includes the chief executive officers of the Consortium's member institutions.

The Board meets annually to review Consortium program policies and procedures. The Board also provides a direct line of communication between the Consortium Executive Director and the higher administrative levels of its eight member institutions.

The S.C. Sea Grant Consortium maintains direct contact with coastal and marine user groups and the general public, and serves as a conduit between institutional knowledge seekers and coastal and marine knowledge users, through S.C. Sea Grant Extension Program (SGEP), marine education, and Communications and Information Services (CIS) activities. These outreach programs assure that (1) problems and needs of those who live and work along the coast are accurately identified, (2) research projects and programs are effectively providing the necessary information, and (3) this information is delivered to target audiences in a timely fashion and user-friendly format.