

South Atlantic Regional Research Project Survey

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Overview: The SARRP Stakeholder Survey to evaluate coastal resource issues and impacts for the southeast is now complete. The Survey, which was hosted on Survey Monkey, ran from August 25 through September 30, 2008. This report provides information on survey distribution, details on the respondents, and an overview of the results.

The link below will give you access the full results of the survey:

(http://www.surveymonkey.com/sr.aspx?sm=zYbs_2blXyDR_2bPdW8IcpHHQrzCLodb3Izo4X390U7g1Q4_3d)

Attached is a summary of those results.

I. Survey Distribution

We prepared and distributed SARRP Survey announcements, press release text and general information to the four Sea Grant Communications teams. Members of each Communications team collaborated regarding overall distribution strategy, and each Sea Grant program tailored its methods and targeted recipients for their state.

The Survey was sent out in “open distribution”, meaning that individuals were able to forward the information to others who may be interested in responding, without limits on who could access the survey. Therefore, the numbers listed below reflect only the known number distributed.

Websites that featured prominent links to the Survey

South Atlantic Regional Research Project (SARRP)
Sea Grant of North Carolina
South Carolina Sea Grant Consortium
Georgia Sea Grant
Florida Sea Grant
Georgia Coastal Research Council
Georgia Department of Natural Resources, Coastal Resources Division
National Oceanic and Atmospheric Agency: NOAA in the Carolinas

Emails and Hard Copies Sent

SARRP/Sea Grant email and hard copy distribution

SARRP Regional Advisory Group	40 - Members including Organizing Committee
Georgia Coastal Research Council	140 - Affiliates list
Sea Grant of North Carolina	800 - Combined lists plus 310 hard copy fliers
South Carolina Sea Grant Consortium	872 - Combined lists
Georgia Sea Grant	369 - Combined lists
Florida Sea Grant	1256 - UF sample of alumni residing in coastal counties

SARRP Partners - emails

Georgia Department of Natural Resources, Coastal Resources Division 150 - Combined lists
Georgia Department of Community Affairs CA list 45 - General list
Georgia Center for Ocean Sciences Education Excellence 400 - Affiliates list

TOTAL known emails and hard copies sent: 4072

Open distribution

NOAA in Carolinas (featured item in quarterly e-newsletter)
Coastal States Organization (featured item in e-newsletter)

II. Overview of Survey Response and Demographics

Of the 552 respondents who began the survey, 524 finished, resulting in a completion rate of 94.9%.

Respondent Tallies by State

Florida	34.0%	182 respondents
Georgia	23.0%	120 respondents
North Carolina	21.8%	114 respondents
South Carolina	18.2%	95 respondents

Demographic Highlights

The majority of the respondents self-defined as “Current Coastal County resident” (74.6%), with the largest category of respondents residing on the coast for 1-10 years (21%).

Respondents were asked to choose their “Professional Association”. Table 1 lists how respondents self-identified in this category. The majority (39%) self-identified with the “Education and Academic Research” affiliation.

Affiliations in the “Other” category included Manufacturing, Student, Retired, Journalism, Engineering Consultant, Utility, Extension, Attorney, Media, Transportation, Homemaker, Retail sales / rental, fitness and IT. It also included several responses that actually fit into categories above, but the tallies in this table do not reflect those edits.

TABLE 1 Professional Association responses

Commercial fishing	2	0.4%
Recreational fishing	2	0.4%
Environmental organization	22	4.8%
Arts	5	1.1%
Other NGO	3	0.7%
Seafood industry	2	0.4%
Tourism	4	0.9%
Religious organization	1	0.2%
City or county government	25	5.5%

State government	80	17.5%
Federal government	49	10.7%
Education or academic research	178	39.0%
Forestry/timber	4	0.9%
Port industry	2	0.4%
Construction - real estate industries	42	9.2%
Medical and health-related services	18	3.9%
Insurance	3	0.7%
Banking - finance	14	3.1%
Other	86	

Please refer to the Survey Monkey site results

(http://www.surveymonkey.com/sr.aspx?sm=zYbs_2blXyDR_2bPdW8lcpHHOrzCLodb3Izo4X390U7g1Q4_3d) for more details and to sort the specific responses by each stakeholder.

III. Overview of Survey Results

TABLE 2 All Responses Results. The top ten are in **BLUE**.

All Impacts "Very Important" exc. in italics which scored as "Somewhat Important"	% of All	Vote Tally	Rank
PHYSICAL ENVIRONMENT AND HABITATS			
Tidal wetland loss, including marshes, fresh and brackish wetlands	84	462	1
Changes in estuaries (e.g. water and sediment quality)	79	428	2 tie
Changes in tidal creeks (e.g. water and sediment quality)	70	382	5
Changes in near shore waters (e.g. changes in water and sediment quality)	66	356	9
Loss of Non-tidal freshwater wetlands	64	353	10
Loss of soft and hard corals	62	337	12
Decrease in underwater vegetation; sea grasses and marine aquatic vegetation	60	326	13
Loss of hard or rocky formations supporting sponges, corals, and other invertebrates on the ocean floor	57	311	15
Increase of erosion	56	303	16
Potential changes in shoreline and habitats due to sea level rise	56	299	17
Loss of cypress forests or bottom hardwood	54	295	18
Changes in the salinity of tidal waters	53	285	19
Loss of bird rookeries	52	280	20 tie
Changes in the size and character of beaches on mainland coastal and barrier islands	46	251	25
<i>Alterations in beach migration patterns or sand budgets</i>	39	212	28
<i>Changes in dune distribution</i>	38	202	29
ORGANISMS			
Degradation / loss of commercial/recreational fisheries, including crabs, shrimp, shellfish, coral, finfish	79	428	2 tie
Effects of chemicals on organisms, including toxins, contaminants (pesticides, herbicides, petroleum products), hormones	77	417	3
Continuing loss of endangered, threatened spp, incl. sea turtles, marine mammals, fish, sea grasses, birds and coastal plants	76	410	4
Contaminated seafood	67	361	6

All Impacts "Very Important" exc. in italics which scored as "Somewhat Important"	% of All	Vote Tally	Rank
<i>Other effects of human actions on marine life, including food web interactions, community dynamics, trophic structure</i>	66	360	7
Spread of invasive or other undesirable species - e.g. lion fish, several mussel species	63	338	11
Fish kills	51	278	21 tie
Incidence of Harmful Algal Blooms(HABS)	50	271	23
EFFECTS ON QUALITY OF LIFE AND COASTAL ECONOMY			
<i>Increase in coastal human population and changing demographics</i>	66	360	8
Loss of viable fishing or other traditional livelihoods associated with coastal economies	59	315	14
Decrease in public access to coastal waters, shores and beaches	52	280	20 tie
Beach and estuarine closures/advisories, including warnings/ bans on swimming, fishing or other public uses	52	278	21 tie
Increase in debris in waters and on shore	51	278	22
Decrease in nature-based recreation opportunities, including wildlife viewing, kayaking, hiking, camping, swimming	50	273	24
Vulnerability of coastal population & property to storms, including hurricanes	46	248	26
<i>Changing "look" or "feel" of the coast, including aesthetics or Sense of Place, cultural impacts</i>	41	222	27
<i>Changing economics and cultural opportunities</i>	33	175	30
<i>Increase in cost of recreational activities</i>	8	96	32
<i>Decrease in fish limits for hobbyists</i>	12	81	31

Filtered Results

Because 39% of respondents who responded to the affiliations question self-identified as working in “Education or academic research,” we separated out these results to allow comparison. Table 3 compares voting percentages for each question between **All Respondents** and **Respondents minus Those Self-identifying as Working in “Education and Academic Research.”** The results are very similar. NB: This table continues on page 6.

TABLE 3 Filtered Results

All Impacts "Very Important" except those in italics ("Somewhat Important)	% Votes	% Votes w/o "Educ.-Acad."
PHYSICAL ENVIRONMENT AND HABITATS		
Tidal wetland loss, including marshes, fresh and brackish wetlands	84	81
Loss of Non-tidal freshwater wetlands	64	64
Loss of cypress forests or bottom hardwood	54	52
Decrease in underwater vegetation; sea grasses and marine aquatic vegetation	60	60
Loss of soft and hard corals	62	66
Loss of hard or rocky formations supporting sponges, corals, and other invertebrates on the ocean floor	57	59
Changes in tidal creeks (e.g. water and sediment quality)	70	66
Changes in estuaries (e.g. water and sediment quality)	79	76
Changes in near shore waters (e.g. changes in water and sediment quality)	66	63

All Impacts "Very Important" except those in italics ("Somewhat Important)	% Votes	% Votes w/o "Educ.-Acad."
Loss of bird rookeries	52	50
Changes in the salinity of tidal waters	53	55
Changes in the size and character of beaches on mainland coastal and barrier islands	46	47
<i>Changes in dune distribution</i>	38	38
<i>Alterations in beach migration patterns or sand budgets</i>	39	40
Increase of erosion	56	55
Potential changes in shoreline and habitats due to sea level rise	56	54
ORGANISMS		
Degradation / loss of commercial/recreational fisheries, including crabs, shrimp, shellfish, coral, finfish	79	80
Continuing loss of endangered, threatened spp, incl sea turtles, marine mammals, fish, sea grasses, birds and coastal plants	76	76
Spread of invasive or other undesirable species - e.g. lion fish, several mussel species	63	64
Effects of chemicals on organisms, including toxins, contaminants (pesticides, herbicides, petroleum products), hormones	77	76
Other effects of human actions on marine life, including food web interactions, community dynamics, trophic structure	66	63
Contaminated seafood	67	70
Fish kills	51	53
Incidence of Harmful Algal Blooms(HABS)	50	53
EFFECTS ON QUALITY OF LIFE AND COASTAL ECONOMY		
Beach and estuarine closures/advisories, including warnings/ bans on swimming, fishing or other public uses	52	54
Vulnerability of coastal population & property to storms, including hurricanes	46	49
Loss of viable fishing or other traditional livelihoods associated with coastal economies	59	60
Increase in coastal human population and changing demographics	66	64
Decrease in public access to coastal waters, shores and beaches	52	54
Increase in debris in waters and on shore	51	52
Decrease in nature-based recreation opportunities, including wildlife viewing, kayaking, hiking, camping, swimming	50	50
<i>Increase in cost of recreational activities</i>	18	20
<i>Decrease in fish limits for hobbyists</i>	15	18
<i>Changing "look" or "feel" of the coast, including aesthetics or Sense of Place, cultural impacts</i>	41	39
<i>Changing economics and cultural opportunities</i>	33	33

Additional Impacts

In Question 4 of the survey, respondents were given the opportunity to list important impacts that were not included in the menu of choices offered by the survey. These impacts, along with impacts that emerged from their responses to the two other open-ended survey questions, are presented in Table 4.

TABLE 4 Additional Impacts from Comments

Anticipated Impacts of offshore drilling (8)
Effect of docks and other structures on the marsh (2)
Impacts of erosion and sea level change on coastal tourism
Loss of ecosystem services (quantity and quality)
Changes in salinity and linkages between watersheds, tidal streams and continental shelf waters
Decrease in tidal saltwater endemic species
Saltwater intrusion in to drinking water (2)
Human health issues (pollutants causing red tide, odors, respiratory illnesses)
The effects of levies on Lake Okeechobee, the quality of drinking water and on the Everglades
Cumulative impacts, how to study them or regulate them.
Loss of nurseries for fisheries
Loss of plankton
Decline in water quantity and quality

IV. Highlights of comments in the 3 open-ended questions

In order to solicit more specific information from respondents regarding impacts and to allow stakeholders to suggest ideas related to specific research needs, the survey included three opportunities for respondents to contribute additional information in an open-ended format. Below is a summary of those Comments. The comments may be viewed in full via the link to the Survey Monkey Results (http://www.surveymonkey.com/sr.aspx?sm=zYbs_2blXyDR_2bPdW81cpHHQrzCLodb3Izo4X390U7g1Q4_3d).

Question 4 - “Please list any additional impacts here.” (80 comments)

On-topic comments from this question appear in Table 3, which lists additional impacts arising from all three open-ended questions.

As with all the open-ended questions, respondents did not restrict their comments to the content specifically solicited by the question. In their off-topic comments, respondents tended to discuss either what they viewed to be driving the impacts or to suggest responses to the impacts. The drivers mentioned most often (three to five times) were **human overpopulation, over-development, increased recreational boating and non-point pollution**. Mentioned twice each were the conversion of forested lands to development, shoreline hardening and lax regulations that allowed building in sensitive areas.

Among suggested responses to the impacts, the response suggested most often was no response – that **people learn to live with a dynamic coastline and refrain from working against it by shoreline armoring, beach re-nourishment, etc.** Comments with similar content were offered six times in response to Question 4. Conversely, two respondents suggested beach re-nourishment AS a response to environmental impacts. Also, mentioned twice were education, building sustainable, hurricane-resistant structures and the better regulation of septic tanks.

Question 5- “Please use this box below to expand on each of the Impacts you rated as Very Important”. (207 Comments)

“Expansions” in response to this question tended to discuss drivers associated with the impacts or to suggest responses to the impacts. Far and away the driver cited most often was **population growth or over-population**. This was frequently mentioned in connection with **increased development**. A great many (38) cited population growth/development as THE single-most cause of the negative impacts they observed on the coast. And many more included it in longer lists of drivers.

Non-point-source pollution and **changes in land-use** were each cited as important drivers 10 to 15 times. Responses that referred to **damage to the food web** also occurred often enough to merit special mention. A great many other commonly acknowledged drivers were also cited by individuals or in numbers smaller than five.

Among the suggested responses to the impacts chosen as “very important,” **promoting better land-use planning** and **educating the public about coastal resource issues** were each recommended 12 to 15 times. 11 respondents **advised that we should not try to stop dune movement, beach loss and the migration of barrier islands**. In somewhat related comments, six respondents said that the health of natural resources should be considered before quality of life issues.

Though somewhat off-topic, several respondents used the box to say in a very general way why the coastal environment was important to them, without relating their comments to specific impacts.

Question 13 “Please feel free to add any additional comments.” (87 Comments)

Most respondents used this comment box to express appreciation or offer positive exhortations that, while encouraging, are not especially helpful to the purposes of this survey. A great many thanked us for seeking their opinion, complimented the various Sea Grant programs on their efforts or recognized that protecting coastal resources is a daunting task and wished us good luck.

Many offered advice about responses to coastal problems but the responses did not significantly aggregate around single approaches. Improving enforcement was cited most and garnered four mentions.

A dozen respondents offered very general personal or philosophical statements about why coastal resources are important to them. For example (Q13, #77), “Since I go to the beach every morning to look for shells & watch the sun rise, it is important to me that we maintain the coastal areas.”

Four respondents drew attention to local problems about which they were particularly concerned. Notably, two suggested we consult the North Carolina Coastal Habitat Protection Plan at <http://www.ncdmf.net/habitat/chpp28.html>.

Comments on the Survey by Respondents

In their responses to all three open-ended questions, some respondents commented on the survey itself. The comment registered most often, some 25 times, was that **all or most of the impacts were very important and it was therefore difficult to choose between them or adequately rate their importance**. Respondents often combined this observation with the statement that **the impacts were interrelated and difficult to rate discretely**. Two respondents objected to the inclusion of sea-level rise as an impact, claiming that it is a myth. Two complained that the survey contained a bias against change, stating that change can often be a good thing. Their comments were echoed by two more who thought the survey did not grade change due to the impacts finely enough and forced them to choose between extremes, not allowing them to specify that they might find a certain level of impact to be acceptable. Occurring singly were comments that the survey should have included impacts on cultural heritage; that the survey should not have focused only on impacts; that the survey did not include enough information for someone unfamiliar with coastal resources to make intelligent responses; and that there was not an adequate opportunity for detailed input.

On the positive side, more than 20 respondents expressed their thanks for the opportunity to express their opinions through the survey, some expressing curiosity about the ultimate results and volunteering to help in whatever way they could. Example (Q 5, #163): “Your survey was well worded and does not need my embellishments. Thank you for the opportunity to participate.”