Sapelo Island National Estuarine Research Reserve 2013 Market Analysis and Needs Assessment Summary

Sapelo Island National Estuarine Research Reserve

P.O. Box 15 Sapelo Island Georgia 31327

Background: In the summer of 2013 the Sapelo Island National Estuarine Research Reserve initiated a Market Analysis and Needs Assessment (MANA). Limited funds were made available from end of the year funding sources to contract a vendor to conduct the MANA. Bids were sent out to three vendors, the Carl Vincent Institute for Government, Responsive Management and the SRA Research group. Vendors responded within 30 days with their firm's quotes. The quotes for the proposed MANA were as follows: Carl Vincent $8,500; Responsive Management: $7,500 and SRA Research Group $5,900. Only the SRA research group bid came in at or below funds allotted for the MANA and thus the SRA Research firm was awarded the contract. The winning contractor was required to finalize the MANA by October 31st in order to close out the funding source.

The SRA Research group contacted many local and state school systems and ran into several personal data privacy issues with the school systems and thus it was decided for timeline purposes to use an existing database of teacher contact information. This database of teacher contact information was from an existing database managed by the Sapelo Island National Estuarine Research Reserve/ Georgia Department of Natural Resources (SINERR/GADNR) and housed in a Microsoft ACCESS© database. The teacher information database included teacher information from the time period of December 2011 to the summer of 2013. No teacher contact records existed prior to these dates. Contacts housed in this database came from several sources including k-12 and university questionnaires for programs held on and off the reserve , SINERR teacher workshops held on and off the reserve, SINNER teacher workshop partnership programs including SINERR/Georgia Marine Extension's *Green Eggs and Sand* workshop, SINERR/Georgia Southern University's *Blue Bloods* and *REAL STEM* workshops and the SINERR/The Nature Conservancy's *Rivers to the Sea* and *Leaders in Environmental Action for the Future* (LEAF) workshops. Contact information was also sourced from the teacher distribution list of the University of Georgia Marine Sciences Long Term Ecological Research (LTER) children's book and curriculum "*And the Tide Comes In.*" This dataset included teachers from five (5) states and at least thirty two (32) different cities representing a broad geographic reach (47 teachers failed to record their state and 51 teachers failed to state their city, so the previous geographical scope represents the minimum geographic data distribution).

SRA Research group was provided all the guidance documentation from the Nation Estuarine Research Reserve System and engaged in several consultations with SINERR staff. The SINERR and the SRA Research group then plotted a course on how to accomplish the MANA goals and objectives given the pecuniary and temporal constraints. The SRA Research group sent of questionnaires via e-mail to all the contacts provided to them starting in September 2013and ending in November, 2011. Teachers not responding had the contact information verified and the questionnaire was resubmitted. The survey was sent out to teachers on three separate occasions. Results were then tabulated and submitted to the SINERR for review.

Conclusions and Recommendations:

Several interesting data trends emerged from the MANA that will be used to implement future programming on the SINERR. First among these was that educators in the survey had either taught about estuaries and related systems for an extensive amount of time (more than15 years) or had no experience with these systems. This datum point is crucial in determining what level of instruction is appropriate to the average consumer. This datum suggests that a mix of basic instruction and higher level instruction would yield the greatest programmatic results.

The majority of the teachers in this survey also came to the reserve with other professional development training in estuary and watershed or ocean education. Knowledge of these programs will help to supplement or augment the teacher's overall estuaries and coastal watershed knowledge and skill set and help enforce key universal teaching elements among the programs. The MANA was critical in localizing products and services being utilized by the user groups. This information will be a key tool to future development of these programs.

The MANA verifies the SINERR emphasis on topics such as zooplankton, sea level rise and others, but suggests that the SINERR may need to place further emphasis on such topics as currents which currently only has a minor emphasis at the SINERR. The MANA further suggests that greater emphasis be placed in showing teachers how to use the real time and archived data sets available to educators and students.

Travel and transportation constraints continue to be a barrier to professional development and student education programming. The MANA showed that state of Georgia decision to increase ferry fees from $6 per student to $15 student will be a barrier to schools visiting the reserve (63% of respondents stated that it would be a barrier). Most of these constraints are immutable on the SINERR but can be used to justify more programs off the reserve or serve as point of discussion when the student/teacher fee issue is revisited. Since the MANA has identified student/teacher costs as a barrier to visitation, the SINERR will monitor and analyze any discernable trends.

The MANA highlighted the need for continued emphasis on climate change programming. Climate change programming will continue to be prominently featured in the SINERR's K-16 programming, public programs and teacher workshops. The MANA also verifies the need for hands-on experimentation for addressing climate change education and more such activities will be incorporated into SINEER climate change education at all levels.

Additional programs or presentations will be developed based on the MANA results such as invasive species, tides waves and currents as well as biodiversity and adaptation in the marine environment.

The results of the MANA concluded that professional learning units (plu's) are not statistically significant in a teacher's decision whether or not to participate in a professional development program. The data does suggest however that the SINERR continue to offer plu's through its teacher workshops as it remains great tool in recruiting teachers to the SINERR professional development programs.

Future actions needed:

The SINERR will begin introducing lessons learned from the MANA into current and future programming. The SINERR will set up a timeframe and schedule to develop the next MANA to incorporate a larger more diverse audience. The SINERR will engage the Georgia Board of education at regional levels to encourage their support of future SINERR MANA surveys.

SRA RESEARCH GROUP INC

DATE: November 22, 2013

TO: Adam Mackinnon

FROM: Mark Sandler
cc: Tish Nichols

RE: Market Analysis and Needs Assessment Research (MA/NA)

The intent of this memo is to provide the required information which is part of the mandatory market analysis and needs assessment (MA/NA). This memo follows the requests outlined in the MA/NA Data Collection Requirements document. A document showing frequencies and comments for each question has been submitted under separate cover.

SCOPE AND METHODOLOGY

About SRA – SRA is a business solutions organization which helps companies identify opportunities for sustainable growth and a stronger competitive position. Founded in 1985, SRA has helped for profit and not for profit organizations improve by providing knowledge and understanding of their existing and prospective customers' needs. We are a trusted partner who can deliver guidance to help frame issues, develop solutions, and refine new opportunities. We engage with our clients to provide innovation, creativity, analytics, strategy, and consulting to address complex business needs. We help our clients maximize their competitive advantage and drive business value.

For more on SRA, visit www.sra-researchgroup.com.

Background – The Sapelo Island National Estuarine Research Reserve is part of the Georgia Department of Natural Resources and receives funding from NOAA. Teachers from schools in Georgia bring students to the island to learn about the estuary and the environment. NOAA mandates a market analysis and needs assessment with required baseline questions. In addition, the Reserve is interested in better understanding some local issues, such as the impact of ferry charges increasing to $15 per person.

Methodology – A total of approximately 100 teachers who have brought students to the island were sent a link to a web-based survey. SRA made three attempts to have these teachers complete the survey.

Response Rate – SRA obtained 43 completed interviews. Respondents were sent a $5 Starbucks gift card as a thank you for participating.

REQUIRED QUESTIONS

Following are the responses to the 8 questions that are required in the Needs Assessment exactly as written.

1. How many years have you been teaching estuary, watershed, and ocean related topics?

	None	Less than 2 years	2-3 years	3-5 years	5-7 years	7-10 years	10-15 years	More than 15 years
Estuaries	19%	12%	7%	12%	7%	14%	7%	23%
Watershed	19%	12%	12%	9%	5%	14%	7%	23%
Ocean	14%	9%	7%	12%	5%	14%	7%	33%

2. How many class or activity periods of estuary, watershed, and/or ocean instruction do your students receive in a typical school year?

	None	A portion of one class	One to two classes per year	3 to 5 classes per year	6 to 15 classes per year	More than 15 classes per year
Estuaries	16%	14%	14%	14%	26%	16%
Watershed	14%	9%	28%	21%	16%	12%
Ocean	12%	12%	19%	16%	21%	21%

3. In the last three years, how many hours of professional development training in science have you obtained related to estuaries, watersheds, and the ocean?

	None	Less than 8 hours	8-16 hours (1-2 days)	16-24 hours (2-3 days)	24-32 hours (3-4 days)	32-40 hours (4-5 days)	More than 40 hours
Estuaries	14%	9%	14%	5%	16%	23%	19%
Watershed	19%	23%	9%	5%	9%	21%	14%
Ocean	19%	16%	7%	9%	9%	21%	19%

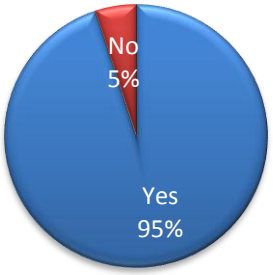
4. Which professional development trainings have you taken to supplement your estuary/watershed/ocean education? (CHECK ALL THAT APPLY)

Project WET	33%
Project Wild Aquatic	28%
NOAA/NERRS Teachers on the Estuary Training	26%
The Jason Project Professional Development	12%
Green Eggs and Sand Workshop	7%
None of the above	23%
Other	40%

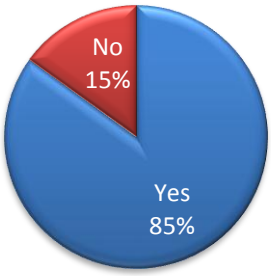
5. Thinking about your plans for your class for the entire year, how much emphasis did you or will you give each of the following?

	Little or no emphasis	Moderate emphasis	Heavy emphasis	Not applicable
Outdoor experiential activities	23%	35%	35%	7%
Lab or field work/data collection	12%	44%	33%	12%
Stewardship projects or activities	28%	49%	14%	9%
Data analysis, statistics, and probability	21%	51%	19%	9%
Scientific inquiry	7%	44%	40%	9%

6a. There is a National Estuarine Research Reserve located in Georgia called Sapelo Island Natural Estuarine Research Reserve, which is one of 28 Reserves around the country protected for the purposes of education, research, water quality monitoring, and coastal stewardship. Were you aware that your state has a National Estuarine Research Reserve?



6b. Have you ever used any of their educational services or products?



6c. If yes, which services or products have you used? If no, why not?

Services or products used
I attended a field experience this summer that was part of our school's partnership with Georgia Southern for the Race to the Top STEM Grant.
Sapelo Island trainings through SINERR.
I take my students to Sapelo Island every year for a week. We have done dock and plankton/estuaries study at the lab there each year.
Lab room for studying organisms under a microscope; materials for measuring water temperature, depth, salinity, etc. of ocean water near a dock; shark dissection; finding the small bones in a fish head.
I took a coastal ecology teacher workshop there.
Sapelo Island coastal ecology teacher workshop University of Georgia Marine Lab Book: Living Beaches Georgia DNR resources Coast Fest SINERR Sapelo Yellow Bats Georgia DNR Georgia's Wetland Treasures.
Workshops and supporting materials from coastal concerns barrier island habitats coastal ecology.
I have attended classes there with colleagues. We used the wet lab, the beach area, and the Georgia Marine Institute. We used the Georgia Natural Wildlife Resources staff.
Field trips to Sapelo Georgia's Coastal Treasure.
Camping, beach studies, seining, plant studies, following the studies going on by the DNR. I bring a group to Sapelo Island each week in June and July of 40 students. We work with Adam and Yvonne in the lab and different sights on the island.
Educator's summer workshop at Sapelo for turtles and estuary ecology.

I have taken courses at Sapelo NERR: barrier island ecology, coastal ecology, sea turtles, coastal birding.
Teacher Workshops – UGAMI.
The training that Georgia Graves has given through her workshops has been great for providing materials. Also, through her efforts, I have received supplies and equipment through The Coastal Resources Division of the Georgia Department of Natural Resources.
Posters, website, and teacher resources listed on website.
I have taken my class to Sapelo for a lab presentation and activities with the Education and Research Coordinators.
The grant that I am working on partnered with the education program to design a 2½ hour teacher workshop specifically tailored to the teachers in my program.
I attended the 2011 coastal ecology teacher workshop on Sapelo, as well as the coastal concerns workshop in January 2012. Georgia Graves did a terrific job organizing these sessions, and I took back a great deal of materials/resources to help in the classroom. Since 2012, I have taken four environmental science classes on field trips to Sapelo. Adam McKinnon and Yvonne Grovner are excellent, and I hope to bring more classes in the future.
The materials that were provided when I went to 'ecology of Sapelo' workshop.
Educational workshops on coastal ecology and shorebirds.
Take students on field trips each spring to Sapelo Island to participate in SINERR-sponsored lab activities and field work; participated myself this past summer in SINERR teacher workshop for three days in July.
Attended sea turtle workshop.
Estuaries 101 resources, lesson plans and knowledge gained from various workshops on marine mammals, shorebirds, and sea turtles that I have attended through Sapelo's education programs.
ACE basin & north inlet/Winyah Bay NERRs and SC DNR teacher adventure program.
I have participated in two workshops on Sapelo Island - coastal ecology and sea turtle workshop. I've used resources from these classes for instruction.
Websites.
Field trips with high school students, workshops during the summer for professional development.
Field trips for students.
I have attended a weeklong coastal ecology workshop for educators.
I have used their curriculum guide. I can't remember the name... there may be two of them that I've used.
With the turtle conservation materials I received this summer, I was able to develop a unit for PK-K students. My students loved learning about turtles and we will expand on that unit in February for Georgia History Day at our school and even more when we do our big ocean unit that starts at the end of April, and will wrap up at the end of May.
Baruch Marine (Field) Lab - teacher class; also have done student salt marsh classes at Hobcaw Barony.
Teacher training.

Reasons for not using products or services
I am an informal educator through Tidelands Nature Center. All of our programs are on-site.
I haven't had need of it.
I am not from Georgia. I have used products and information from NOAA and from other sources in my state and in my research area (Caribbean).
Last summer was my first workshop. I plan on integrating the data on sea turtle population when we are doing quadratics in my 10th grade math class this year. Also planning on doing a project on water quality with one of the science teachers at my school.
This is my first year teaching.
I am not a science teacher. I am an English teacher who also does outdoor activities with our students. I want to come to Sapelo for a mix of cultural and environmental activities.

7. From which web resources do you currently obtain estuary, watersheds, and ocean information for use in your classroom? (CHECK ALL THAT APPLY)

NOAA's Education	74%
Sapelo Island Natural Estuarine Research Reserve	67%
Georgia Department of Natural Resources	65%
National Estuarine Research Reserve System's Education	37%
National Estuarine Research Reserve Systems	35%
EPA Education Website	30%
Wikipedia	16%
Local non-profit	12%
NSTA Estuaries Sci Guide	9%
National non-profit	7%
Other	14%
I do not use web resources	5%

8. Which of the following real-time/archived data sets would you need synthesized into age-appropriate learning materials and visualization for your teaching? (CHECK ALL THAT APPLY)

Zooplankton species	58%
Sea level rise	53%
Animal tag/tracking	51%
Salinity	51%
Water contaminants	51%
Fish species and abundance	47%
pH	47%
Nutrients	42%
Temperature: water	42%
Dissolved oxygen (DO)	40%
Temperature: air	40%
Waves	40%
Water turbidity (clarity/cloudiness)	37%
Currents	35%
Algal blooms	33%
Atmospheric carbon dioxide	33%
Water depth	23%
Bathymetry/topography	14%
Ocean color	9%
None of the above	12%
Other	9%

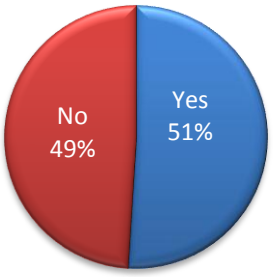
REQUIRED DATA

Following are the responses to the 12 data requirements that needed to be fulfilled as part of the Needs Assessment process.

1. Number of K-12 educators in your region & total number of K-12 educators who actually completed your Needs Assessment (NA).

Number of K-12 educators who completed NA = 43

2. Reasons why teachers attend teacher professional development training. Sample question: Are CEUs (continuing education units) and/or PLUs (professional learning units) important or required in determining which professional development opportunities you participate?



3. Barriers for teachers to attending professional teacher development. Sample question: What factors prevent you from attending professional teacher development? List of the top five barriers.

Travel/transportation constraints	72%
Can't get time off	58%
High registration fees	49%
No time/too busy	42%
Lack of administration support	26%

4. Educator's skill-building interests. Sample questions: What type of professional development training do you need?

Conducting hands-on activities	63%
Facilitating field work/data collection	49%
Using real-time or archived data from monitoring sites	49%
Facilitating inquiry-based activities	47%
Science content	44%
Using computer-generated visualizations of data	37%
Incorporating new lab activities	35%
Analyzing data	33%
Using new websites	21%
Other (specify)	2%

5. Projections – effect of changing demographics: Sample question: Approximately what percentage of students in your school or program identify with the following racial/ethnic groups? (Provide a list of groups)

	0 to 5%	6 to 10%	11 to 25%	26 to 50%	50 to 75%	76 to 100%	Don't know
White	5%	7%	7%	19%	28%	33%	2%
Black/African American	16%	9%	16%	30%	14%	12%	2%
Latino	58%	23%	14%	2%	0%	0%	2%
Asian/Pacific Islander	72%	12%	5%	0%	0%	0%	12%
Native American	88%	2%	0%	0%	0%	0%	9%

6. Types of real time/archived science data sets educators use in their teaching. List of the top five topics.

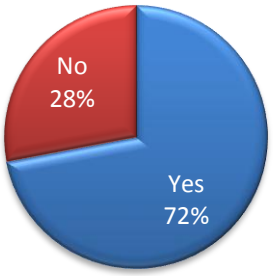
Animal tag/tracking	35%
Salinity	26%
Temperature: water	26%
Sea level rise	23%
Temperature: air	23%

7. Connection to the outdoors. Sample question: What kind of outdoor experiential opportunities/activities are your students provided with?

Outdoor activities
In science courses, students are able to do data collection around the school campus, but we are unable to go on field trips due to budget restraints.
Stream analysis.
Hiking at various natural areas in Georgia (Stone Mountain, Arabia Mountain, Cloudland Canyon, Blackbeard Island), plant and animal identification, study of geological features on location; coastal kayaking, water quality testing, marsh, beach and dock studies, programs led by naturalists and foresters, documentation using photography.
Jekyll Island 4-H Center; creek and pond ecology near our school.
Observation activities.
Off campus: none.
N/A.
We checked the water quality near the school. My school really cracked down on trips so my outdoor opportunities stopped. They did not want us away from school so we stayed there. If there is no support, it does not happen.
Field trips to Sapelo Island (1/year). Occasional trips into the schoolyard.
The school grounds: herb garden, pre-K organic garden, composting, brown thum garden, Monet's garden, five 450 sq. foot organic gardens, Shakespeare garden, vermicomposting, chicken coop, fruit garden, butterfly garden. In the center of the complex, a Pangeas garden. We also have a water cistern for watering. The Rock Eagle 4H center. Oatland Island. The Marine Center on Skideway Island.
None.
We track land use on a 400 acre plot. We do water quality testing every 3 weeks and then compare the data from the two ponds with the changes in land use for those areas.
Students are provided with materials, resources, and information gained by teachers attending workshops such as those offered by UGAMI. Teachers are usually paying their own way to attend. Due to location and budget constraints, students do not have the opportunity to do on-site studies. Many students have never left the area and have not had the opportunity to experience educational outdoor

activities. Most have never seen an estuary/ocean.
I use activities from: project wet, project learning tree, project wild, garden earth naturalist, junior master gardener, master gardeners, monarchs across Georgia, and from various workshops I have taken over the years. These include hands-on and outside science/experiential activities. This year I plan to do more service environmental activities.
Help the Hooch (cleanup), soil testing, bug collections, bird watching, and water testing.
Very few due to our location and budget restraints.
Field surveys and observations through the DNR, SINERR outdoor education/coastal ecology trips, etc.
n/a for my situation - I am project coordinator for a grant that provides PD opportunities for our partner schools.
Insect collection/identification, leaf collection/identification, butterfly garden field trip to Sapelo after studying coastal ecology.
Field trips and gardening.
None at the moment. Budget concerns have eliminated all field trips and lab supply funding.
Outdoor food web study; water quality and DO study; oyster reef and biodiversity studies; marine debris activity; marsh transect; invertebrate study and beach seining.
Marsh/beach walks, adopt-a-wetland monitoring, live animal exhibits.
None.
Some stream monitoring, mainly just being outside and observing the marsh.
Observing insects, birds, plants, and clouds.
Pond water quality testing, visiting salt marsh and sandy beach ecosystems.
Field trips to the marsh and beach, food web demonstrations, beach sweeps, manatee encounters.
This is my first year teaching and so far the experiments take place in the classroom lab. On one occasion we went outside to see what happens when dry ice is trapped in a water bottle. I am hoping to have more outdoor activities when we go into the physics portion of the course.
Our students receive science daily in school, based on Georgia science standards. They participate in an environmental education camp at Jekyll Island, Georgia for 4 days in May. They learn beach, marsh, & maritime forest ecology.
3 raised garden beds, plant identification transects.
N/A.
I have taken students to Sapelo, but due to budget cuts, our school no longer allows them. Our campus set up limits on outdoor activities, although I have done some activities from project WILD.
Field trips.
I utilize site visits in my courses, which are in the humanities, not in science.
Planning on a combined water quality activity with science teacher.
Field trips to nearby natural areas including salt marsh, barrier island, forest, swamp, and pond habitats.
We do a cubic meter community project where the students track weather, flora, and fauna over the entire year and compare/contrast.
None! All that my children receive is what I teach during 3 different times a year.
Unfortunately due to budget cuts we are not allowed to go on any field trips. Truly sad so I have to depend on virtual interactions and my own experiences.
Trips to local salt marsh to identify plants and animals, occasional phytoplankton identification, fouling community identification, trash collection from edge of salt marsh (marine debris), kayaking, yearly interpreted trip to barrier island, butterfly garden, vegetable garden, bird feeding stations where students identify birds, hiking, demonstration bee hive, field trips to local natural places of interest.
Water quality testing, watershed observation areas, macroinvertebrates.
All sorts. I visit the field at least 2-3 times per class, normally more than that if I count all the times that I use our campus to teach geoscience. I do research in field-based geoscience for intro students, I am fully aware of the benefits of experiential and outdoor education opportunities for students.

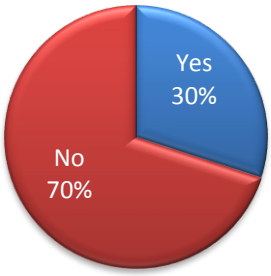
8. Total number and percentage of schools, districts and/or counties that offer estuary and estuary related topics to be taught. Sample question: Are estuary and estuary-related topics a required part of your school's/district's/state's science teaching requirements?



9. Sample question: What help do you need to incorporate more outdoor education in your classroom?

Facilitating field work/data collection	53%
Backpacks with field guides, binoculars, magnifying glasses, and activity guides, among others	47%
Conducting hands-on activities	42%
Unstructured outdoor experiential activities	37%
Facilitating inquiry-based activities	35%
Guidance on monitoring activities	23%

10. Sample question: Do you foresee a need for new estuary/ocean/watershed related educational materials in different languages? If yes, which?



Languages needed:
- Spanish (12 mentions)
- Chinese (1 mention)
- Korean (1 mention)
- All languages (1 mention)

11. Sample question: Which topics would you like to see developed into educational materials?

Invasive species	63%
Wetlands/marshes	63%
Estuaries as nurseries for marine life	60%
Climate change/sea level rise	56%
Biodiversity and adaptation	53%
Marine/aquatic habitats	53%
Tides, waves, and currents	53%
Human impact on the environment	49%
Conservation	47%
Coastal hazards	47%
Nutrient cycles and food webs	44%
Animal migration	44%
Life cycles of marine/aquatic organisms	42%
Rivers and watersheds	40%
Weather	37%
Water cycle	37%
Lab or field work techniques	37%
Geologic change	35%
Marine related careers	35%
Experimentation and the scientific method	33%
Real estuary measurements and data (temperature, dissolved oxygen, salinity, etc.)	33%
Erosion and sedimentation	30%
Water quality and health	30%
Water pollution	28%
Recreation (fishing, birding, boating, etc.)	28%
Physical properties of water	26%
Technology and instrumentation	26%
Water chemistry	23%
Interdisciplinary research	23%
Commercial fishing and fisheries	23%
Actions you can take	23%
Salinity	21%
Heat transfer	19%
Earth systems	16%
Water density	16%
Other (specify)	5%

12. Sample question: What help do you need to incorporate more discussion about the effects of climate change on coastal areas in your classroom?

Help needed
More information...we do have access to NERR's database which helps, but hands-on experiences would help students attach meaning to the data.
Data.
Materials that are clear and easy for students to understand (on internet or otherwise), more visual representations of effects.

Time!
Increased education on my part – data.
Science texts, student books.
Activities for the elementary level.
Age appropriate material – elementary.
A change on the common core curriculum that places more emphasis on climate change on coastal areas, as well as more flexibility in the classroom in presenting the material.
A lesson plan that includes hands-on activity or virtual activity.
I honestly would like to hear a debate on both sides of the argument.
Current data, future modeling software and data.
I need to be able to incorporate this topic into my chemistry curriculum.
Updated models/projections.
Lessons and activities ideas.
Posters with information on them.
A different course! Physical science allows for some discussion on the topic but not detailed interpretations.
Data, maps, websites.
Data and lesson plan ideas.
Data collected that can be related to the CCGPS where the kids can create graphs from data and do statistics.
Need more knowledge; lesson plans would be helpful. I attended a workshop on climate change, but I really don't know how to adapt the info to age-appropriate activities.
Just more materials, a teachable website that PK-2 children could interact with.
Probably need more education on the topic.
Actual data.

MARKET ANALYSIS (MA)

Following are the responses to the 10 data requirements that Reserves need to fulfill upon completion of the MA process.

1. List of the organizations surveyed.

Refer to list of organizations surveyed which is submitted under separate cover.

2. Total number and percentage of organizations that you surveyed that are (1) federal/state government, (2) educational institutions, (3) zoos/aquarium, and/or (4) non-profits.

Educational institution (university, community college, etc.)	65%
State government agency	12%
National non-profit organization	7%
Local non-profit organization	5%
Nature center/environmental education center	5%
Municipal agency/department	2%
Other (specify)	19%

3. Data requirement: Number of percentage of organizations that you surveyed that are part of the NOAA family (Sea Grant, Sanctuaries, Fisheries, etc.)

None of the respondents are associated with NOAA

4. Data requirement: Top five types of educational programming provided by other organizations (include percent breakdown).

High school programs	58%
Middle school programs	37%
Elementary school programs	35%
Field trips for K-12 students	35%
In-service training	23%

5. Data requirement: Top five topics addressed by other organizations.

	Elementary	Middle	High	Not applicable
Water Cycle	33%	26%	40%	21%
Experimentation and the Scientific Method	30%	30%	49%	23%
Nutrient Cycles and Food Webs	30%	23%	37%	26%
Biodiversity and Adaptation	21%	30%	47%	28%
Weather	30%	23%	35%	30%
Physical Properties of Water	14%	28%	44%	30%
Wetlands/Marshes	21%	26%	40%	30%
Lab or Field Work Techniques	21%	26%	49%	30%
Data Analysis	19%	26%	49%	30%
Human Impact on the Environment	19%	26%	47%	30%
Water Quality and Health	14%	21%	47%	30%

6. Data requirement: Top five topics that other organizations think need more attention.

Lab or field work techniques	53%
Climate change/sea level rise	51%
Human impact on the environment	51%
Conservation	40%
Invasive species	37%

7. Data requirement: Number and percent of organizations targeting each grade level.

Elementary school	37%
Middle school	33%
High school	40%
Other (specify)	2%
Do not offer professional teacher development	26%

8. Data requirement: Percent of organizations that offer educational credits.

Not applicable (Question to be answered by the Reserve)

9. Data required: Top 5 most common methods of marketing programs.

Not applicable (Question to be answered by the Reserve)

10. Data requirement: Comparison of the counties served by other organizations with those served by your Reserve.

Montgomery, AL	3%
Bulloch, GA	5%
Camden	3%
Catoosa	3%
Chatham	10%
DeKalb	10%
Dougherty	3%
Evans	3%
Fulton	8%
Glynn	13%
Liberty	3%
Muscogee	3%
Richmond	5%
Walton	5%
Kent, MI	3%
Mecklenburg, NC	3%
Charleston, SC	3%
Horry, SC	5%
Franklin, TN	3%
Salt Lake, UT	3%
No response	10%