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Facilitator’s Note: This document combined with the Report of Proceedings reflects the work, discussion, acceptance and changes of the 08-09 Research Plan of the Oceans Council at their December, 2007 meeting. Additions are noted in underlined text, deletions by ~~striketrough~~. Many sections are either preceded or followed by member discussion/commentary which was recorded prior to the acceptance ranking of a section. If a section was accepted with “no objections” there was no ranking table indicated. If there were still concerns, a ranking table was created and the level of consensus indicated.

**Full document: Need all full sentences; check grammar throughout, there is inconsistency in subject/object/verb, etc.**

COASTAL AND OCEAN SYSTEMS  
FLORIDA’S NATURAL, ECONOMIC AND SOCIAL  
LIFEBLOOD Old title to be used

**TITLE:**

Comments:

We need a different title, it is not an action title; use last year’s title we should not change the title each year  
“Investing..... and include the year”

**Agreed with no objections to keep original title**

**Introduction**

There is no greater influence in our lives than the sea. Our waters define Florida and we are recognizing, as never before, the inextricable links between our communities, our coasts, our ocean, and our quality of life. Our oceans control our weather and dictate the climates. Our oceans hold 97 percent of Earth's water, generate more than 70 percent of the oxygen we breathe, absorb carbon dioxide, supply our fresh water through rain, provide food, and are a deep source of inspiration to all.

Florida is the only continental state largely surrounded by coastal seas and ocean. In Florida you are never more than 75 miles from saltwater. Now, more than ever before, we as Floridians recognize how our decisions individually and regionally can impact the oceans as a whole. Today through cutting-edge technologies we have access to advanced data and new, timely information. By sharing our collective resources—the best science available, the expertise of hundreds of scientists and resource managers and our collective commitment—we can better protect the health of our complex ocean and coastal ecosystems and secure an ocean legacy for future generations.

Florida’s economy and population are ~~growing rapidly~~ projected to grow rapidly over the long term with development booming along our coasts. This is where multiple interests intersect and informed

1 management is critical. To abate critical threats to Florida’s marine resources requires accurate  
 2 assessments, continuous monitoring, and real-time ability to predict *and interpret* changes to the  
 3 physical, chemical, biological, geological, and socioeconomic components of our marine ecosystems. It  
 4 also requires a fully-integrated ~~information handling~~ system to allow resource managers and other  
 5 interested parties to share data and information ~~to easily use existing and future data~~ in making their  
 6 decisions.

7 **Introduction: Agreed with changes no objections incorporating changes above.**

8 Member Comments:

- 9 1. Is 70% the correct number, do a check
  - 10 a. It is a fuzzy number, do a fact check, US Ocean Council could be checked
- 11 2. Line 23, last sentence is not clear; make more clear, need

12  
 13 Florida’s economy is heavily dependent on its oceans and coastal ecosystems ~~and shoreline~~ and it is  
 14 important to know how to use them sustainably to strengthen our economy. In 2003<sup>1</sup>:

- 15 • Florida’s coastal Gross State Product (GSP) was over \$402 billion, two-and-a-half times the nearly  
 16 \$160 billion of its’ inland economy.
- 17 • Florida produced \$23.2 billion from transactions of marine resources and marine-related industries.
- 18 • Ocean tourism and recreation for 2005-2015 in Florida is projected to grow by 73 percent, creating  
 19 more than 268,000 new jobs.
- 20 • Florida’s GSPs for marine transportation and for coastal recreation are each among the top five in  
 21 the nation, a significant influence on the ocean economy.

22 **Bullet points: Agreed with no objections incorporating changes above**

23  
 24 Member Comments:

- 25 1. Focuses on human economy and not natural resources, there are ecosystem uses too, what about them?  
 26 Do we want to include ecosystem uses, coastal resources
- 27 2. I would agree, we might be going overboard with human economy
- 28 3. Intent works, but implication is that nothing is doable unless sustainable

29  
 30 Together, working across local, state, regional and international borders, we can further demonstrate  
 31 the uncommon commitment that Florida has in protecting a most remarkable treasure—its oceans.

## 32 The Oceans and Coastal Council

33 The Oceans and Coastal Resources Act, §161.70, et seq., Florida Statutes, created the Florida Oceans  
 34 and Coastal Council (Council). The Secretary of the Florida Department of Environmental Protection,  
 35 the Executive Director of the Florida Fish and Wildlife Conservation Commission, and the  
 36 Commissioner of the Department of Agriculture and Consumer Services, each appoints five marine  
 37 scientists and experts who serve as voting members of the Council. These three agencies serve as ex-  
 38 officio members with the Department of Environmental Protection and the Florida Fish and Wildlife

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<sup>1</sup> Kildow, J. 2006. Phase 1, Florida’s Ocean and Coastal Economies Report. Report to FL Dept. of Environ.  
 Protection. Office of Coastal and Aquatic Managed Areas. 111 pp.

1 Conservation Commission co-chairing the Council. This resulting Council of 18 is charged with  
2 coordinating coastal and marine research in Florida, identifying research gaps and creating an annual  
3 Research Plan, and recommending new strategies that enhance management and conservation efforts  
4 for our coastal and marine resources.

5 **Members: Agreed with no objections incorporating changes above**

## 7 Accomplishments

8 The Council has already made significant achievements and been able to influence a broad range of  
9 activities. Among these are:

- 10 • Solicited and incorporated input from 17 Florida resource-management agencies and entities. This  
11 was used to perform a broad-based assessment of resource-management needs and to prioritize the  
12 research needed to address those needs.
- 13 • State agencies are using the Council's Annual Science Research Plan to guide their actions in the  
14 areas of research and resource assessment.
- 15 • Priorities identified by the Council are being used to shape the newly formed regional  
16 collaborations, the Gulf of Mexico Alliance and South Atlantic Alliance.
- 17 • Creation and initial steps to implement a Resource Assessment, providing internet-based  
18 information for all about the location and status of Florida's natural and human resources.
- 19 • Creation and initial steps to implement a Research Review for Florida, providing internet-based  
20 information for all on existing ocean and coastal research. This will help locate research gaps and  
21 prevent duplication of effort.
- 22 • Creation of a white paper on aquaculture in Florida. This explores opportunities and hindrances  
23 for expanding aquaculture's role in Florida.
- 24 • Partnered with the Florida Water Resources Management Council to support establishing metadata  
25 standards to improve use of existing Florida data.

26 ~~In addition,~~ **just continue the bullets**

- 27 • The Council's efforts have stimulated creation of an organized ocean observing effort for Florida  
28 that includes public/private partnerships.
- 29 • Council emphasis on mapping prompted joint state-federal interagency workshop to assess existing  
30 information and identify and prioritize mapping needs for Florida. Results have already  
31 influenced projects funded through other sources *for example:* A website was established with  
32 information to help with coordination within the state ([www.dep.state.fl.us/MarineMapping](http://www.dep.state.fl.us/MarineMapping));  
33 Projects at USGS: Florida Shelf Habitat Mapping Project and Response of Florida Shelf Ecosystems  
34 to Climate Change; Pending project: Establishing habitat and resource baselines within the  
35 boundaries of an impact zone on a test and training range in Northwest Florida (DOD).
- 36 • Priorities identified by the Council influenced the National Ocean Research Priorities Plan.
- 37 • The GAME project (Geospatial Assessment of Marine Ecosystems) is gathering existing biological  
38 and physical information in a web-based GIS format. The goals are to identify critical information  
39 gaps and to define and map Florida's marine ecosystems.

41 **Accomplishments: Agreed with no objections incorporating changes above**

1 Member Comments:

- 2 1. Does this list of accomplishments really cover the accomplishments?
- 3 2. I think this is a really important list so we should get GAME off.
- 4 3. Don't eliminate GAME but explain it more.
- 5 4. Have we really sold what we have accomplished?
- 6 5. Ask other organization to include more accomplishments.
- 7 6. If we don't know them who would know the accomplishments?
- 8 7. This is not a single agency effort.
- 9 8. Need to look at grammatical construction throughout document.
- 10 9. Maybe we shouldn't separate into "in additions" and put them all together.
- 11 10. Make sure all full sentences in all bullets.

14 **The Annual Science Research Plan**

15 This third Annual Science Research Plan is based on prioritized resource-management needs. These  
 16 were collected from a comprehensive array of state and local government agencies with coastal and  
 17 oceans resource management responsibilities and augmented by input from non-governmental  
 18 organizations regarding their view of the State's resource-management needs. This information was  
 19 used to identify research gaps and guide research priorities. The Council compared the management  
 20 needs to available research to identify where research funding was needed. Two common themes  
 21 throughout the lists were the need to understand and predict environmental change on an ecosystem  
 22 level and develop science based solutions to environmental problems. ~~And the need to better handle,~~  
 23 ~~store, interpret and use the data that have been and are being collected.~~

24 More details and the foundation on which this Research Plan is constructed are located at  
 25 [www.FloridaOceansCouncil.org](http://www.FloridaOceansCouncil.org). The Full Science Research Overview contains the areas of research  
 26 needs identified by the Council and an explanation of their importance. The research needs are based  
 27 on the survey of resource-management agencies, which can also be found on this website.

28 ~~A list of research projects is in preparation. This list will be developed by the Council agencies from~~  
 29 ~~peer reviewed proposals addressing the research priorities identified in this Research Plan. This list~~  
 30 ~~will present projects in order of their priority for funding consideration and will be submitted the~~  
 31 ~~Legislature.~~

32 **Annual Science Research Plan: Agreed to without objections incorporating changes above**

33 Comments:

- 34 1. Ernie handed out a document; a suggestion to move it and add language (done, see funding section
- 35 below)
- 36 2. In overall document, the data handling has assumed too important a focus, this needs to be minimized
- 37 more and not the focus in our role (role of the Council); next year in our plan we need a better balance
- 38

39 **The Future of Florida's Oceans**

40 Article II, Section 7 Florida's Constitution states (a) it shall be the policy of the state to conserve and  
 41 protect its natural resources<sup>2</sup>..." goal is to protect and conserve our ocean and coastal resources for  
 42 future generations. ~~While generating economic benefits from their use.~~ Success mandates that we use

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<sup>2</sup> Florida Constitution, Article II, Section 7

1 creative public and private partnerships, pursue opportunities to leverage funds, use our universities  
 2 and research laboratories and coordinate our efforts with local, state and federal agencies. A discussion  
 3 of the Council's overall research priorities is contained in the Full Research Overview (v 12/17/07),  
 4 which can be downloaded from their website.

5 **Introduction to priority areas: Agreed to without objections incorporating changes above**

6 Comments:

- 7 1. Ocean and economy are linked but too much emphasis here in this document; the "economic use" is not  
 8 in the Legislative language
- 9 2. Our economic reps are not here today (DACs)
- 10 3. I am not worried about this because we focus on economics early on quite a bit

11  
 12 The Council recommends the following areas of priority for research in FY2008-2009:

13 **Water Quality**

14 Water quality is of critical importance to Florida—it determines what biological communities can live  
 15 in a water body, whether the water is harmful to humans and whether the water is suitable for ~~human~~  
 16 ~~uses such as manufacturing or cooling other designated uses.~~ With an economy driven by our  
 17 environment, maintaining water quality to support coral reefs, grass beds, fishing and beach activities  
 18 must be a high priority.

19 **Introduction to water quality section: Agreed to with no objections and with indicated changes.**

20 Member Comments:

- 21 1. Line 3, change to see
- 22 2. Water quality; #2 is where it is now, where to put the quantity issue
- 23 3. Quantity does not belong in this section; we are only talking about quality here
- 24 4. Agree, quality and quantity is more appropriate to fresh water, it should not be together in a marine  
 25 and coastal environment

26  
 27 ***Research Priorities—Water Quality:***

- 28 1. Research and monitoring that examines effects of excess nutrients on living coastal resources and  
 29 relates them to causes and sources and to human activities. The intent is to ~~provide~~ and support  
 30 cost-effective resource management programs to improve oceans and human health.
- 31 2. Statewide coastal observing that guides water quality management, marine resource management,  
 32 and navigation and hazard response.
- 33 3. Harmful algal bloom (HAB) research, to protect tourism, commercial and recreational fisheries and  
 34 inform watershed management for ocean health. The emphasis is on non-red tide HABs. Red tide  
 35 HABs are already being addressed.
- 36 4. Modeling of hydrodynamics, water quality, and coastal/ocean ecosystems to support better  
 37 understanding of cause and effect between uplands activities, coastal freshwater discharges, and  
 38 resulting effects on estuarine and marine biological communities.

39 **List of items water quality section: Agreed with no objections and changes indicated.**

40 Member Comments:

- 41 1. Structural question: each section and priorities, then recommendations for funding, then there is a new  
 42 list that doesn't seem to be in the right place; page 11 list, this is a breakdown of #5 of page 10 and should  
 43 really be part of that and not separated

2. The priorities on page 11 are refined and so there is some duplication
3. The order on page 5 is the correct order and the order on page 11 is out of order
4. Need to make the last section of page 11 of document track the same as this page 5
5. #1 intent is to provide cost effective programs; do we want to provide and support?
  - a. No, it is to provide new tools
  - b. But new tools are not necessarily new programs
  - c. See changes above
6. want to demonstrate effect of excess nutrients; do you want to indicate that?
7. we need to add something to focus these projects

## Climate Change

~~The world's changing climate creates a need to understand its potential effects on Florida's surrounding coastline and waters and to develop a strategy for mitigation and adaptive management.~~

The world's changing climate has the potential to dramatically impact Florida's marine resources, disrupt marine-based economies and cause significant damage to coastal development; thereby creating the need for mitigation and adaptive management strategies.

**Introduction to climate change section: Agreed with no objections and with changes indicated.**

Member Comments:

1. Fair to mild an opening to this section; suggested wording

### *Research Priorities – Climate Change:*

To provide guidance to minimize effects on Florida's population and natural resources must begin with requires investigation into ~~two~~ three key areas.

1. Modeling of sea-level rise based on IPCC scenarios and developing cost estimates for effects resulting from it in terms of natural resource impacts and adaptation of the built community. Emphasis is on collaborative, statewide efforts with peer review. These can include steps that may be necessary to improve model accuracy such as improved topography for coastal uplands.
2. Assessing the impact on fisheries productivity from changes in Florida's estuarine habitat due to sea level rise
3. Monitoring, modeling, and mapping of natural system responses. Emphasis is on predicting effects of climate change on coral reef communities. To establish baseline data, it will be necessary to map and characterize Florida's coral reef communities ~~within State boundaries but outside the boundaries of the FKNMS.~~

**List of items in climate change section: Agreed to with no objections and changes indicated.**

Comments:

1. The word "florida" in item #2
2. Verification: first sentence
3. We need to include mitigation
4. we need to develop cost estimates so this change is good

## 1 Ocean and Coastal Ecosystems

2 Florida's beaches and near shore coastal waters draw more than 33 million tourists to Florida each year;  
3 contributing more than \$56 billion and more than 900,000 jobs to the economy.

4 Those same resources are shaped by geology, water movement, and the plants and animals themselves  
5 interacting on a variety of scales from hundreds of kilometers to millimeters. Having a comprehensive  
6 understanding of these ecosystems through reliable baseline information is critical to supporting wise  
7 management decisions.

8 **Introduction to ecosystems section:** Agreed to with no objections and with changes indicated.

### 10 *Research Priorities—Ocean and Coastal Ecosystems:*

- 11 1. Map and characterize the seafloor and coast including the distribution and abundance patterns of  
12 coastal marine organisms. Emphasis is on the gaps in mapping identified by the state resource  
13 management agencies at the Florida Mapping Workshop in February 2007.
- 14 2. Improve understanding of coastal and ocean hydrology, including the linkages between freshwater  
15 input and coastal water. Emphasis should be on water budgets, hydrologic modeling, and factors  
16 affecting and controlling freshwater input to coastal and nearshore waters.
- 17 3. Research and modeling to understand and describe linkages between ocean and coastal habitats  
18 and the living marine resources they support. One area of emphasis is the effects of marine  
19 protected areas (MPAs) on surrounding populations. Fisheries and their linkages to habitats are an  
20 important area of these studies.
- 21 4. Oceans and coastal economics, including the values of non-market resources and the costs and  
22 benefits of beach renourishment and beach restoration.
- 23 5. ~~Improved understanding of Harmful Algal Bloom (HABs), with emphasis on non-red tide types of~~  
24 ~~blooms.~~

25 **List of items in ecosystem section:** Agreed to with no objections and with changes indicated.

#### 26 Comments:

- 27 1. grammar throughout document (see #3 and 4) not consistent in construction
- 28 2. #5 under Oceans and Coastal Systems and #3 in Water Quality may be redundant; should be under;  
29 remove #5 in this section and leave #3 in Water Quality
- 30 3. We need to keep at the concept of marine protected areas, not just RMZs, I think we should add  
31 something in here about that
- 32 4. On page 11, MPAs are listed twice and yet we don't have them anywhere else, replace #5 with something  
33 on MPAs
- 34 5. I don't think we should add something new at this point, we can talk about it after we get through the  
35 document
- 36 6. I think it is just an oversight that we left out the MPAs

## 38 Tools and Technology

39 Fulfilling Florida's need to observe and predict environmental change and the ecosystem responses of  
40 its coastal waters provides abundant opportunity for the development and implementation of cost  
41 effective tools and technologies ~~that reduce the cost of~~ to understand,ing and monitor,ing and improve  
42 the health of Florida's resources.

43 **Introduction to technology section:** Agreed to with no objections and with changes indicated.

1 Comments:

- 2 1. do we want to add “improving” the health of Florida’s resources? Was it intentionally left out?
- 3 2. Where does the “reduce the cost” come from?
- 4 3. Get new language from Holly
- 5 4. need to add “improvement”

7 **Research Priorities—Tools and Technology:**

- 8 1. Integrated Coastal and Ocean Observing Systems—A mix of in-water platforms and buoys,  
9 shipboard surveys and remote sensing is required for continuous monitoring of water quality and  
10 status of marine resources. The goal is to create a sustained interdisciplinary observing system that  
11 spans all of Florida’s waters from the outer shelf to coastal estuaries and rivers. Emphasis is on  
12 extending, integrating and filling gaps in the existing coastal observations.
- 13 2. Development of sensors to provide improved abilities to determine the status and trends of our  
14 coastal waters and their inhabitants. Emphasis is on development of sensors for biological and  
15 chemical sensing, as well as means to tag and track wildlife.
- 16 3. Integrated Data Management and Prediction—Coordinated collection, handling, quality control,  
17 sharing, and interpretation of research and monitoring data are critical to improving the State’s  
18 resource management. Centralized coordination of model development to provide prediction, and  
19 user-friendly web-based posting of information and model predictions are needed to accommodate  
20 science-based decisions by management agencies and the general public.
- 21 4. New tools to help cost-effectively map and monitor the State’s coasts and oceans.
- 22 5. Development of assessment tools, particularly for assessments of biological community status and  
23 trends, ~~and~~ and for rapid assessments of natural resources, and evaluation of management efforts.

25 **List of items in tools and technology section:** Agreed to with no objections and with changes  
26 indicated.

27 **Ongoing Research Efforts**

28 The Oceans and Coastal Resources Act seeks better coordination of coastal and ocean research. The  
29 Council stresses that this Research Plan is not generally intended to replace ongoing state-funded  
30 research efforts and partnerships. These research recommendations are based on identified research  
31 gaps, ~~and are intended~~ to supplement that research already underway, and eliminate duplication of  
32 efforts.

34 **Closing paragraph to Plan section:** Agreed to with no objections and with changes indicated.

35 Member Comments:

- 36 1. Do we want to say we are not going to replace efforts in partnership but that does not mean we won’t  
37 eliminate duplication of efforts



## Integrated Data Management and Dissemination

~~In addition to specific research topics, managers of coastal resources in Florida stressed the need to deal more effectively with the data and communication portion of the research/management circle.~~

~~The need for and benefits from improvements in this area cannot be overemphasized. Based on input from Manager's~~ The Council believes improved collection, handling, sharing, and interpretation of research and monitoring data is a critical first step necessary element towards improving the State's resource management. Initial steps of this effort were launched in FY 2007-2008, but the full design and implementation necessary to produce a robust, cost—effective, and useful system must take place over several years.

To ensure continued support for ~~this necessary part of the management/research circle~~, the Council encourages that an appropriate percentage of research funding be targeted to support the costs of providing a strong integrated data management and dissemination program. The proposed next steps are below.

- 1) Complete the development of metadata standards for the remaining major types of research and monitoring data, complete vetting of proposed standards with the public, and establish the final metadata standards.
- 2) Work with State of Florida technology oversight entities to initiate ~~develop low-level~~ system design, including system specifications and requirements.
- 3) Undertake a pilot project to identify key historical data for rescue and restoration and develop methods to achieve restoration in a cost-effective manner. Have state and local agencies identify existing databases that are candidates for conversion and compile information describing data contained therein.
- 4) Establish a working panel to recommend the best means for providing strong statistical support to researchers during both the design and analysis phases of their research and to ensure that support is incorporated into the state's research programs.
- 5) Establish working panel to recommend the best means for providing strong data-interpretation support to researchers and resource managers. ~~Ensure that support is incorporated into the state's research programs.~~

**IDM Section:** Agreed to with no objections and with changes indicated.

Member Comments:

1. Did we want the graphic that was in the last plan? This language refers to it.
2. Do we want a replacement graphic?
3. what is a low level system design?
4. In #5, do we want to add resource managers to ensure.....

## Management Recommendation: Interagency Coordination

~~The Council recommends that the relevant State agencies establish an interagency working group, the goal of which will be to identify overlapping interests and programs, develop cost-effective mechanism to eliminate redundancies in research and monitoring programs, and work together to establish integrated databases, consistent with the Integrated Data Management and Dissemination priorities listed above.~~

## COMMUNICATION AND INTERAGENCY COORDINATION **NEW TITLE**

The Council encourages the agency or agencies charged with implementing funding of the priority research areas to use existing mechanisms, or to develop new mechanisms as appropriate, to fund innovative collaborative work between the private sector and Florida universities and research institutions in order to maximize the expertise of each and effectively link research with education of the next generation of scientists.

Building on the success of the 2007 Mapping Workshop, the Council will continue to engage scientists, managers and members of the public on priority issues through workshops, Oceans Day and other forums.

**Recommendation: interagency coordination: Agreed with no objections and with changes indicated.**

Member Comments:

1. Eliminate paragraph 1 and replace with other language (agencies to draft the language).
2. Language to stress importance of integrated data gathering and support.
3. In the document let's refer to something specific that the workshop would focus on.
4. We should discuss this at the end of this document discussion, but keep the concept of interagency cooperation.
5. Comments from Karl Havens:
  - a. Under the list of accomplishments, where the aquaculture white paper is listed, it would be good to briefly mention what it contains and why it is a valuable product.
  - b. The management recommendation does not seem to be necessary. Everyone wants agencies to work together and develop efficient and effective ways to fund good work. Is it necessary to state the obvious?
6. We must state the obvious over and over
7. Let's hold this section till we discuss the others
8. Let's reference an extension of our desire to support through public forums to promote climate change awareness; science to facilitate to the public information on climate change
9. Since we don't do any work we don't fit the mold of giving workshops on giving information; what we should be doing is getting the expertise of the state for us; we gather the experts to help inform us and by doing that we also inform the public
10. We need to be a little more mature before we do presentations on our own

### Recommended Priority of Funding

The Council offers the following five items in order of importance. This list is also expected to provide guidance on state research priorities for state, regional, and federal research, ocean observation, and natural resource data management programs.

#### **1. Council administration and operation:**

**Operating costs for Oceans Council** – costs for Council meetings and support staff to create annual Research Plan and oversee research proposals and contacts.

**Recommended funding = \$300K**

Member Comments:

1. I think we keep it the same.

2. Is this self-serving, shouldn't we indicate that the continuation of the Council is important.
3. However, we were asked by the Legislature to do this work.
4. But the first budget did not include the budget to keep Council going so we always put it in the budget.
5. Have it be "legislatively defined duties"?
6. Move this entire section as a stand alone rather than under priority of funding called Council Operations or some other language.

**Keep at \$300K and place where agencies feel is best- Agreed with no objections.**

## 2. *Legislatively-defined duties*

- a) **Research Review** – maintain publicly-available Research Review detailing past and present coastal and ocean research in Florida;
- b) **Resource Assessment** – complete publicly-available Resource Assessment providing information on the location and status of the natural and human resources in Florida's coastal and ocean realm.

**Recommended funding = \$??**

## 3. *Integrated Data Management and Dissemination*

Continue efforts to establish standards, procedures and a metadata framework to safely and efficiently store and share research data, and to develop and maximize the usefulness of the information generated from that data.

**Recommended funding = \$??**

Council comments and discussion:

1. Current budget: \$800,000.00
2. They are now asking for approximately \$725,000.00
  - a. 350K for the design and implementation a survey to a larger office
  - b. 350K for the system design portion (includes Form IV-B, RFQ, Iterative process)
3. What is the outcome by the end of year 2?
  - a. Complete IV-B form and give Legislature the actual cost for implementing the IDM system, this for the 2009 Legislature.
  - b. Is that the end of this Council's charge?
4. Strong indication is that Council is jump starting an effort for this data stream; at some point the agencies must decide whether to pick up this effort; the Council should not be made to continue to fund this effort as one of their priorities.
5. At some point the Council should/will recommend that this effort is taken over by the agencies.
6. Need to speak more about the Council's role and responsibilities; is there a matching share of \$ somewhere so that we don't have to put all the money into this effort? Other agencies could benefit from this and should be contributing to this effort in funding.

### NOTE:

~~Research priorities listed below will be implemented by agencies and through competitive peer review of proposals solicited from interested Florida investigators. The results of this process will be submitted to the Legislature. The number and cost of projects implementing the following Council priorities will depend on available 2008-2009 funding. (Ernie's added language—agreed to no objections)~~

1 A list of research projects is in preparation. This list will be developed by the Council agencies  
2 from peer-reviewed proposals addressing the research priorities identified in this Research Plan.  
3 This list will present projects in order of their priority for funding consideration and will be  
4 submitted to the Legislature.

5 **Note language above: Agreed to without objections and with changes indicated.**

6

7 *4. Design and establish real-time interdisciplinary observing systems for*  
8 *Florida waters and contiguous waters important to and affecting the Florida*  
9 *coastline.*

10 **Recommended funding = \$?? [Note: there is overlap between #4 and #5 as written]**

11 *5. Priority research in Water Quality, Climate Change, Ocean and Coastal*  
12 *Ecosystems, and Tools and Technology.*

13 **Recommended funding = \$??**

## 1 Water Quality

2 **Areas of emphasis:** Modeling, harmful algal blooms (HABs), nutrient loading, observing  
3 systems.

4 **Priority:** effects of non-point or point sources of nutrients on coastal flora or coastal  
5 ecosystems, including relative impacts of point vs non-point sources, ties to land use, and  
6 ability to distinguish sources of nitrogen &/or corresponding response conditions.

## 7 Climate Change

8 **Areas of emphasis:** monitoring, modeling, mapping, natural system responses

9 **Priority:** modeling sea-level rise in Florida and its effects on human and natural  
10 resources. Requires collaborative, state-wide sharing of ideas, peer-review, and defined  
11 timeline. May require additional topographic data.

12 **Priority:** predicting impacts of climate change on coral communities

## 13 Ocean & Coastal Ecosystems

14 **Areas of emphasis:** fisheries, mapping, modeling, hydrology, marine protected areas,  
15 economics, aquaculture, HABs, beach renourishment/restoration

16 **Priority:** fill in mapping gaps from state agencies' priority list<sup>3</sup> to improve decision  
17 support tools for resource managers

18 **Priority:** fisheries and effectiveness of marine protected areas (MPAs). Includes habitats,  
19 spawning sites, rapid assessment tool development, Need is for statewide area(s) of study  
20 and creation of decision support tools for managers.

## 21 Tools and Technology

22 **Areas of emphasis:** sensor development, innovative new mapping tools, tagging &  
23 tracking technologies, tools for biological and other types of assessment.

24 **Priority:** sensor development for measuring biological activity, add sensors to existing  
25 observing systems and address gaps. Leverage capabilities from existing state  
26 investments.

27 **Priority:** develop biological community health & rapid assessment tools.

28  
29 **Areas of emphasis should follow the list in order of priorities as outlined in the body of the**  
30 **Plan: Agreed to with no objections.**  
31  
32  
33

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<sup>3</sup> Results of February 2007 joint DEP/USGS/SERPPAS workshop on Florida mapping priorities. Available at <http://www.dep.state.fl.us/MarineMapping/priorities.htm>

1 OVERALL DOCUMENT RANKING (Note by Facilitator: this was done PRIOR to all discussion, it  
2 just appears last):

5	4	3	2	1
0	3	4	3 Jody, Ernie and Tom W	0

3