

Appendix A



Coastal Training Assessment Project
May 8-9, 2006
Strategic Planning and Assessment
Preparation Meeting Report

Meeting Planning, Facilitation and Report by:
The Florida Conflict Resolution Consortium

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Coastal Training Assessment Project

May 8-9, 2006

Project Team Meeting Report

Executive Summary

The mission of the Florida Coastal Training Program (CTP) is to provide coastal decision-makers with the best available science based information, tools, and techniques required to make responsible decisions in Florida and the resulting effects on coastal resources. This mission is accomplished through training programs, partnerships and networking, and thorough knowledge of audience needs and emerging issues. The Florida Conflict Resolution Consortium and the Center for Economic Forecasting and Analysis at Florida State University and the Florida Sea Grant Program at the University of Florida have a contract to assist in this mission through the completion of an assessment of the training and information needs of elected and appointed government officials, conducting a pilot project based on the results of the assessment, and preparation of an outreach plan to continue positive, long-term relationships with the target audience.

This is a report of a two-day meeting of the CTP staff and the assessment project consultants held on May 8-9, 2006 at the University of Florida in Gainesville. On the first day the group clarified the strategic direction of the CTP, the project objectives, the audiences, the knowledge and skills to be conveyed and the possible CTP training and outreach approaches. The second day refined a concept for an integrated decision approach for CTP activities and developed guidance for carrying out the literature review, database development and research efforts. A schedule of activities was prepared and immediate next steps and responsibilities were identified. This report is based on the facilitator's notes and does not capture everything or exactly what was said.

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Overview

The mission of the Florida Coastal Training Program (CTP) is to provide coastal decision-makers with the best available science based information, tools, and techniques required to make responsible decisions about coastal watersheds in Florida and the resulting effects on coastal resources. This mission is accomplished through training programs, partnerships and networking, and thorough knowledge of audience needs and emerging issues.

The Florida Conflict Resolution Consortium and the Center for Economic Forecasting and Analysis at Florida State University and the Florida Sea Grant Program at the University of Florida have a contract to assist in this mission through the completion of an assessment of the training and information needs of elected and appointed government officials conducting a pilot project based on the results of the assessment, and preparation of an outreach plan to continue positive, long-term relationships with the target audience.

This project seeks to achieve the following broad objectives related to the management and environmental health of coastal ecosystems. Objectives will also take into account the importance of economic health, human health and the cultural and political climate of the people and regions associated with the project. Diverse stakeholders and community leaders with an interest in science, the environment, program planning, training and decision-making will be invited to participate in the project. The stated objectives are to:

1. Better understand the training and information needs of elected and appointed government officials and other land use policy makers by reviewing existing studies, documents and literature, and as needed, by conducting additional questionnaires, interviews, focus groups and research.
2. Create curriculum, publications or other training aids or programs to meet the stated needs of the target audience and then test the results at Rookery Bay National Estuarine Research Reserve (RBNERR).
3. Identify potential partners with mission overlap, such as Florida National Estuary Programs, the nationwide National Estuary Research Reserve System, Florida Sea Grant and the Florida Coastal Management Program, to identify opportunities for shared training initiatives, outreach materials, and other information resources that could meet the needs of target audiences, enhance long-term goals, and assist Florida's CTP coordinators in creating strategic plans to achieve their NERR's CTP missions.

This is a report of a two-day meeting of the CTP staff and the assessment project consultants held on May 8-9, 2006 at the University of Florida in Gainesville. The objectives of the meeting were to:

- Assess the vision, mission and regional objectives of the CTP to enable strategic thinking.
- Set direction and develop programs and goals to better serve the overall mission.
- Clarify:
 - The audience to be assessed;
 - The training topics to be researched; and,
 - The method and format of the assessment.
- Create consistent and effective outreach materials to increase CTP statewide visibility and recognition.

The agenda for the meeting is in Appendix A. It was adjusted to allow more or less time for different sections. This is a summary report that incorporates pre-meeting materials and facilitator notes from the meeting. It does not capture everything or exactly what was said. The meeting participants included

Coastal Training Program Staff

Tabitha Whalen Stadler, Rookery Bay NERR

Joy Hazel, Rookery Bay NERR

Rosalyn Kilcollins, Apalachicola, NERR

Martin Healey, NERR

Consultant Team

Julie Harrington, FSU, Executive Director, Center for Economic Analysis and Forecasting

Bob Swett, UF, Coordinator, Florida Sea Grant Boating and Waterway Management Program

Tom Taylor, FSU, Associate Director, Florida Conflict Resolution Consortium

Opening

The Coastal Training Program staff and the project consultants met at the Reiss Union at the University of Florida on April 8-9, 2006. Tabitha Whalen Stadler welcomed everyone and described the project and meeting purpose. Tom Taylor went over the proposed agenda and asked everyone to introduce themselves and share their expectations:

Julie Harrington

- I have had a long-term interest in coastal issues.
- I want to see how to use the economic indicators as a better way to help elected officials understand the value of enhancing the coastal environment.

Bob Swett

- We work with data sets at the county level and often go before county commissions.
- It is a challenge to get the information across and deal with the turnover in officials.
- We also work with those who have to deliver information to these officials.
- I look forward to using our experience and finding new ways to improve communications with officials.

Joy Hazel

- This is a training opportunity for me. I want to see how to deliver information to officials.

Rosalyn Kilcollins

- I want to get a better feel for how to reach elected officials and to find out what issues they think are important and to see how to engage them.

Tabitha Whalen Stadler

- This is an opportunity to do a really good needs assessment.
- Past assessments were really broad and didn't tell us much.
- We have goals, needs and priorities and I hope we can address our priorities.
- We will look at how we educate and engage elected officials.
- The assessment can provide an in for us.
- I want to find a way to build the demand for our trainings.
- I want to find the way to reach other people too, e.g. using marinas to reach boaters.

Tom Taylor

- I am excited about this important project.
- Decisions are being made daily that change our environment forever.
- Elected officials need the information you have to offer. Most are not interested in traditional training. We need to understand how they get information they use to make decisions and how you can become part of their decision process.
- This project needs to look beyond just training and find ways to really influence those critical day-to-day and long-term decisions they make.

- This needs to be a “search for significance!”

Regional CTP Strategic Direction

Rosalyn Kilcollins began the CTP directions discussion with power point presentation on the Coastal Training program that she prepared for an upcoming conference (Appendix B). Next a CTP program overview and requirements was provided by Tabitha Whalen Stadler. She explained that the National Estuarine Research Reserves have 5 sectors: Administration/Facilities, Research, Education, Stewardship and Coastal Training. The Coastal Training Program, CTP, is optional and receives \$90,000/year. CTP has an oversight committee and subcommittees. She passed out coastal decision maker workshop materials and studies to review.

The group identified these issues from local officials’ and NERRs’ perspectives:

Local Officials’ Issues	NERRs' Issues
Growth Management, redevelopment, new development, permitting	Land use planning for environmental protection, permit reviews, dock and shoreline development
Infrastructure: sewer, water, roads, schools	Public education and support,
Storm water	Storm water, site planning, red tide,
Affordable housing	Landscape BMPs
	Boating and fishing issues, vegetation, habitat
	BMPs for development
Public Access issues, ramps, speed zones, marinas, waterfront property	Controlled public access, carrying capacity, research and policy response
Intergovernmental coordination	Same, overlapping jurisdiction, enforcement, regulation coordination.
Same	Non-point pollution, red tide,
Catastrophic events: hurricanes, red tide	Prescribed burning, channel markers and other management conflicts
	Sea level rise and erosion, beach renourishment, turtle nesting
	Nesting birds, turtle nesting, enforcement

Comments on the lists of issues

- What we do is a fraction of what they do.
- The economic analysis can tie these issues together.
- We need to pick a focus, e.g. boating, water quality, etc.
- It may be helpful to have a standard process to deal with any issue. The CTP can be a place for them to come to get assistance with any environmental issue they have.
- Use economics and environmental health and a unifying focus.
- We may focus on their staff to get elected officials to make good decisions.
- This may be out of scope of this assessment.

- The key concept is that we need to reach the councils with science information to address their problems.

Performance Measures – The 14 performance indicators for the CTP were reviewed and the monitoring responsibilities were explained (See Appendix C).

CTP Service Assessment

The CTP staff indicate which services are most liked by their clients (2 votes per program), which have the most impact in terms of behavior change (3 votes each) and which services they do best (1 vote). Then they each allocated 100 percentage points to indicate how much effort they felt should go into each service (T = Tabitha, R = Rosalyn, J = Joy and M = Martin).

CTP Services/Objectives	Most Liked	Most Impact	We do Best	T	R	J	M	Avg
1. Training programs/ workshops 2 hr. to 3 day	xxx	xx	xxx	20	15	25	20	20
2. Training support services, help partners with their training, field components, help scientists present the information,				5	15	5	5	7.5
3. Field studies/trips	xxx	xx		15	20	5	20	15
4. Technical assistance, meeting with managers and others, where you provide science information for current issues, Networking and resource sharing		xxx		10	20	15	5	12.5
5. State-wide web site			NA		2		5	1.75
6. Master naturalists classes					5	.5		1.38
7. Eco-tour certificate program		x		5		10		3.75
8. Awareness presentations,				5	10	10	15	10
9. Guest lectures at Reserves				5	2	3.5	5	3.88
10. Problem solving issue workshops, provide science-based facilitators		x		15	8	18	5	11.5
11. Needs Assessment, Market Analysis, Strategic Planning and Marketing Plan			NA	5	1	3	10	4.75
12. Research and data searches by request, do fact sheets				10	2	5	10	6.75
				100	100	100	100	100%

Helping and Hindering Forces

The group indicated organizational strengths and weaknesses and external opportunities and threats that may impact the CTP’s ability to deliver services and achieve their objectives as measured by the performance criteria.

Helping Forces: Strengths & Opportunities	Hindering Forces: Weaknesses and Threats
Excellent staff	Can’t do everything,
Strong networks and relationships	Lack of focus
We are responsive to needs, when needed	Can’t buy food
Good facilities	Need to better integrate with other Reserve units
Managerial support	People don’t know we exist - identity
Diverse offerings	Local Gov doesn’t want to change - self-interests
Public interest in the coastal environment	Officials are not interested in participating
NERR network and partners: Sea Grant, CMP	They don’t want to know - no responsibility
Environmental group support	People don’t know what we do
Strong local partners, Marinas, MIACC, Boat US store, Eco-tours, Sea SW FL,	Too many meetings to go to
Neutrality in some areas	Overlap of duties/functions
Potential partners to work on common issues	People don’t see the value of the resource
	Money and politics
	Expedience and simplicity drives decisions
	Some competition between trainers, lack of coordination and partnerships
	Bureaucratic issues, NERR, DEP, etc.
	Lack of funding, people, benefits, turnover

Mission Statement

There was a question of whether there was a need for a mission statement or a statement of purpose for the CTP description that could be used in surveys or as an introduction to audiences and others. It could also clarify issues that the CTP addressed. The following is a short, simple mission statement that seemed to say what is needed: “To facilitate science based decision-making.”

This alternative was created to create a statement that would better address the elected officials’ needs too: “To encourage decision makers to take actions that promote both the environmental and economic health of our human and natural communities.” These questions were generated as considerations for how the mission is achieved:

- Do we have a focus or should we just be responsive to opportunities?
- Do we work for an issue for a few years than take on a new issue?
- Do we do it all or train the trainers?
- Do we have an approach that can be used for any issue?

- Do we use a forum like the FLC New Leaders Training or Stormwater Association workshops?
- Do we educate down or up?

Training Assessment Project Purpose

Objectives and Clarifications

The Training Assessment Project has three stated objectives. The group offered comments to clarify measurable/describable expectations for each objective

1. Better understand the training and information needs of elected and appointed government officials by reviewing existing studies, documents and literature, and as needed, by conducting additional questionnaires, interviews, focus groups and research.

Comments

- There is a need to better understand their [the elected officials decision] processes. How do they get information? What conferences or programs do they go to? When do they ask their aides for something?
 - If we better understand the process we will be able to improve and assist decision-making.
 - How can CTP improve decision making and helping in the decision processes?
 - Are there subsets of officials that get information in different ways, e.g. part or full time commissioners?
 - Need to identify all the different agencies.
 - Determine what issues are important to them. Ask them and inform them on what the issues are. (See the Maine example.)
 - Determine their current knowledge and skill level. Are there other topics? When do they need an expert and do they listen to them. Does it vary by issue?
 - How can we explain the function and limits of science? They need to understand the nature of the scientific process. Consider this in terms of the design of science.
 - We need to develop an integrated stakeholder/science process. Look at logic models. Consider precautionary measures if you don't have final science.
 - They are targeted. Focus on a component and offer targeted trainings.
 - Build relations with those who participate and have a database that can be updated.
 - Need to delineate results by Reserve
 - Get participants to help refine a proposed process.
2. Create curriculum, publications or other training aids or programs to meet the stated needs of the target audience and then test the results at Rookery Bay National Estuarine Research Reserve (RBNERR).

Comments

- This can include a process that can be used for a specific issue, e.g. types of permits.
 - Base it on the research results.
 - Test all three on an issue: expert presentation, stakeholder-science-elected official workshop or convene-stakeholder/science group-elected meeting. Compare
 - They may say they get science information from journals but this may not change behavior.
 - A mini-decision making tool that can be apply science to any issue. It could be called, Integrated Science, Economics and Education, ISEE.
3. Identify potential partners with mission overlap, such as Florida National Estuary Programs, the nationwide National Estuary Research Reserve System, Florida Sea Grant and the Florida Coastal Management Program, to identify opportunities for shared training initiatives, outreach materials, and other information resources that could meet the needs of target audiences, enhance long-term goals, and assist Florida's CTP coordinators in creating strategic plans to achieve their missions.

Comments

- Involve partners in the pilot.
- Avoid duplication of effort. Don't do what others could do better. Save money. Form partnerships. Enhance coordination and communication.
- See who else is working with elected officials.
- Have them review what we do.
- There is a national mentoring group.
- Involve Reserve advisory committees in reviews. Utilize them to get involvement of elected officials. They can provide advice.
- Each contact can be a step toward implementing a new approach to decision making.
- It may lead to a new group to do communication and coordination or this can be done by the CTPs.
- Use the scheduled meeting with partners to explore these ideas.
- Use research sessions to build relationships with partners.
- This will provide input that can be used to prepare Reserve strategic plans

Audiences to be Assessed and Addressed

This draft list of potential audiences was reviewed and those underlined are the ones to be assessed:

Elected Officials

City and county commissioners/council persons

State legislators environmental policy aides

Soil Conservation Commissions

Appointed Officials

Appendix A - Strategic Planning and Assessment Preparation Meeting Report

Planning Commissioners
Boards of Adjustment
Special Districts
Water Management Districts
Regional Planning Councils
Others???

Staff

Administrators and managers
Planners
Permitting staff
Enforcement officers
Public works
Utilities departments

Training and information needs
Create curriculum, publications and other training aids
Partner to identify opportunities for training initiatives
Identify each team member's education, experience and interests can contribute to obj.
Discuss general team member roles

Knowledge and Skills

The group identified basic areas of needed knowledge and skills and then commented or brainstormed examples of each one.

How to integrate science and stakeholder input in formal decisions?

- How so we select participants?
- We need an assessment of what issues are important to them.
- How do you design steps in the model decision process?
- Environmental/scientific, bureaucratic, political and developer decision-making processes are different and need to be integrated in a general process.
- How do you facilitate for results?
- Agency and regulatory coordination skills are also needed.

What technical/scientific information (at a level appropriate for elected officials) is needed?

- Stormwater BMPs
- Public access BMPs
- Land management BMPs
- Wastewater treatment
- Sustainable development

They need to know who to contact for what expertise and assistance, permits needed, etc.

What do they need to understand about the value of natural resources and costs of pollution and degradation?

- How to define costs and benefits.
- Dogs on beach,

They need to know legal and administrative requirements for protection: federal, state and local Roles of agencies.

Training and Outreach Approaches

Identify alternative approaches: formal training, technical training, field based experiences (with others), consultation, consensus building

Develop and evaluate approaches

Seek consensus on which approaches to focus on.

Possible approaches

The group identified these alternative approaches to training and outreach:

- Classroom training: ½ to 1-hour presentation, 2-4 hour seminar, 1-3-day workshop and classes
- On-site tours: field trips, stakeholder forums
- One-on-one technical assistance
- Providing fact sheets and resources.
- Joint problem solving: issue workshops, workgroup assignments and reports

Questions and considerations

- Do we have a clear focus or do we just be responsive to opportunities?
- Do we work for an issue for a few years and then choose a new issue?
- Do we do it all or train the trainers?
- Do we have a model approach or procedure that can be used for any issue?
 - We need to understand how they think about things?
- Should we do our own programs or use a forum like the FLC New Leaders' Training or Stormwater Association meetings or present at conferences officials go to.
- Do we educate down or up [officials or their staff]?
- Should we do what the NEP does and bring the stakeholders together to seek science-based solutions or like the Gulf of Mexico meetings to address an environmental topic.
- We could get involved in the TMDL program and assist local governments develop their Basin Management Area Plans, BMAPS
- We could help elected officials be convenors of key stakeholders to deal with the day-to-day issues. The steps would be to:
 - Bring stakeholders and scientists together to resolve issues
 - Build long term relations and buy-in
 - Achieve outcomes, get important things done.
- It could become too demanding

Day Two Opening

The morning began by sharing these insights from over night:

Overnight Insights

- CTPs get challenging requests and people want an immediate product; as if we didn't have anything else to do.
- In the past we responded to everything and delivered. Now we can be more strategic, especially if we have a plan.
- When I think of the most important things it is law enforcement and land use planners and we don't do much with them. We can't tell them they need training.
- We eliminated planners from the target audience. We could talk to the planning association and RPCs because they work with elected officials.
- Elected officials may not be receptive to "training" but they may be willing to talk about their biggest problems and be receptive to ideas for how to deal with them.
- We are doing tours for a FL American Planning Association, FAPA conference.
- Do you keep track of visitors? We have # at the visitor center and boat surveys (Greg Curry). We also have numbers of those attending trainings. Research may include biological monitoring, e.g. number of days water bodies are closed. These can be used for ballpark economic analysis of reserves. Ballpark revenues may be part of our annual reports. Count the number of participants in all events. We have a software program and we can plug in the information. It is good to know where visitors come from (zip codes), also if they are seasonal or vacationers. Land view is a free GIS program to map zip codes.
- Can we look at property values in and near the reserves? We are looking at the property values related to sea level rise. FREAC has a database of property values. Is there a correlation between natural areas and surrounding properties? Yes. Something may have been done for Apalachicola by FAMU Environmental Institute. We don't necessarily get the report.
- We can see how economic analysis can be used in decision-making as well as coastal science and other perspectives.
- Get them to look at economics and think about tourism, recreation, culture and other areas that are important to them. There is an established methodology for doing this. We need to find ways to use the information to be persuasive and motivating and so it becomes educational.
- Looking for more of a database of all the people, their mission. Use key words, on a broader geographic scale. We will involve fewer people for real in the full assessment and more for the database. We want to know people's needs. Maybe we will be able to partner with others who have databases.

Agenda Discussion

The group agreed to consider the integrated decision approach Tom had repaired over night and

then work through the remaining tasks from the project proposal and contract.

Integrated Elected/Appointed Officials, Scientists and Stakeholders Decision Process

Overview

This chart was developed to illustrate how a model decision process might look. Something like this could be used to engage elected officials and other stakeholders in practical problem solving for any of a wide-range of critical issues. Participants in this process would learn environmental information and approaches. In addition to producing learning with out teaching it will build relationships and better incorporate science into standard procedures.

Steps and Roles in an Integrated Process

Steps in the Integrated Dec. Process	Elected or Appointed Officials	Experts	Public/Private Stakeholders	Agency Stakeholders	Process Leader (CTP)
Issue identification	Request a process proposal	Document the issue	Articulate the need for action	Clarify the issue and their role in resolution	Develop a process proposal
Process initiation	Process Authorization	Organize a Tech Team	Seek input from members.	Select representatives	Prepare participants
Issue assessment	Issue clarification	Issue analysis	Issue clarification	Issue clarification	Facilitate shared understanding
Solution Seeking		Develop solutions	Develop solutions	Develop solutions	Fac. Problem solving
Decision Making	Final decision making	Option assessment	Option assessment	Option assessment	Facilitate Consensus
Implementation	Fund and monitor	Analyze & Report	Fund and implement?	Fund and implement?	Resolve problems

Comments

- It may involve changing ordinances as well as funding. Finding funding may be a step. There may a need for bringing decisions to a public vote.
- Elected officials may want to be involved in solutions seeking not just convening.
- I like this model. There may be a grant that funded this that could develop it further. I find myself in meetings dealing with this. If they would just give me some authority I could do a lot to help. Sometimes we get authority with too many constraints to be

effective. We don't want to get the cart before the horse. First we may do a needs assessment to look at the process needs before giving them something.

- Look at the research questions. Show them alternative approaches, not just a pilot, such as consultant recommendation and public hearing, field studies, training, consultation, etc.
- This is time intensive and is not appropriate in all years.
- This is like Maine's CTP that Chris Fuert runs. She worked with an entire watershed. She has questions in her survey that assess her services, it has more emphasis on problem solving. Her stuff is online. It is on the NOAA site.
- How do we present this in a sound bite?
- As we market the program we can use a sound bite to describe this service.
- Different politicians and people will have different values and this is a way to address different issues.
- This is a way to describe what we already do.

Possible Research Questions

- How does current decision-making incorporate scientific, engineering, economic, legal and various stakeholder perspectives?
- What is the best basic integrated decision process?
- When is and isn't an integrated process appropriate?
- For what issues is it appropriate?
- What variations are appropriate in different situations?
- Who should be able to initiate an integrated decision process and how?
- How can these processes be funded and staffed?
- What is needed to successfully facilitate these processes?
- What are the obstacles to the use of these processes and how can they be addressed?
- How can the IDP be presented so it is accepted and used by elected officials and others?

Assessment Process

1. Develop an integrated decision process model with variations
2. Ask partners and advisory committees to critique and suggest refinements in the model and variations
3. Ask elected and appointed officials, scientists and other stakeholders, CTPs and environmental consensus builders to critique and suggest refinements in the model and variations
4. Pilot test the model and alternatives
5. Prepare the report

Task Implementation Guidance

The group went discussed Tasks and Contractor Activities from the Project proposal, in normal font. The group's comments and guidance is shown in *italics*.

TASK 5	OBJ.	MO.
<p>Based in part on the results of the planning session, the Contractor shall thoroughly review existing studies, documents and literature related to training and information needs assessments and surveys of elected and appointed government officials and land-use policy makers including their attitudes on the environment and management of coastal resources.</p> <p><u>Contractor Activities</u></p> <ol style="list-style-type: none"> 1. Conduct a document review. [TT16, JH8, RS8, AP40] 2. Create decision process maps for comprehensive plan amendments, zoning changes, development reviews, permitting and other coastal resource decisions. [TT24, AP20] 3. Identify where consideration of environmental information is required, encouraged or needed. [TT8, JH8, RS8, AP16] <p>Task 6</p> <p>The Contractor shall produce a report summarizing the results of the literature review, including a comprehensive list of the information and documents reviewed, identification of common strands/themes/needs of the target audience and gaps in the information reviewed. This shall be distributed to the Workgroup for review.</p> <p><u>Contractor Activities</u></p> <ol style="list-style-type: none"> 1. Prepare the draft report described above, formatted for easy review. [TT16, JH8, RS8, AP24] 2. Circulate it to the Workgroup and Stakeholder Contacts for review. [KP8] 3. Incorporate review comments into the assessment report. [TT8, AP8, SA24] <p><u>Research Questions</u></p> <ol style="list-style-type: none"> 1. <i>Who are the elected officials and where are they located? What key words are needed for searches? What socio-demographic (degrees and professional background) information, term of office (segmented market analysis and data base) is desired?</i> 2. <i>Where do elected officials get their science information, how is it used, why (why not) and when? What is their current level of skills and knowledge? Do</i> 	1,3	1 -3

<p><i>they understand the basic science process and how to use it?</i></p> <ol style="list-style-type: none"> 3. <i>How do they consider the value of protected lands? Do they understand the impact of their decisions, e.g. water quality, fishing impact, tourism, quality of life and aesthetics?</i> 4. <i>What is the decision support infrastructure, how does it work, is it adequate? Do they have enough people? Do they use a standard economic analysis model? How do they deal with the different values of constituents? What is a map of their mind?</i> 5. <i>What are the training/service needs of elected officials? What topics are most important to them (What are their critical issues and information needs)? What are the preferred alternative CTP services to assist decision-making (training, consultation, integrated decision making)? Are they aware of the CTPs and reserves?</i> <p><u>Literature review guidance</u></p> <ol style="list-style-type: none"> 1. <i>The consultants will do a work plan with research topics under each question for CTP input</i> 2. <i>Some things may not have answers. Look for those things to do in the research.</i> 3. <i>Look at where there is good information, e.g. about protected lands. Be selective based on your experience. It will help CTP to understand. Look at this first.</i> 4. <i>Review other coastal training programs documents first for insights about elected officials</i> 5. <i>List sources and compile PDF copies, if available.</i> 6. <i>Summarize information and identify gaps in a few pages.</i> 7. <i>CTP staff will do abstracts of needs assessments: Maine-Rosalyn, MA-Tabitha, WA-Joy.</i> 		
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TASK 7	OBJ.	MO.
<p>Based on the gaps identified in the literature review, the Contractor shall create a database of elected and appointed officials that includes name, title, assistants name and contact information, address, county, region, phone no., fax no., e-mail address, job description with searchable key words, date(s) of election/appointment (i.e., when they come up for re-election) and the best method of updating their information to keep the database current after this Contract is over. Database contacts shall include officials from all regions associated with the 3 Florida Research Reserves. The Workgroup shall be consulted for input. The purpose is to identify the extent of the audience and their relevant duties in order to use this tool to conduct additional needs assessments.</p> <p><u>Contractor Activities</u></p> <ol style="list-style-type: none"> 1. Prepare initial database using input from the CTP Coordinators, the Workgroup, Stakeholder Contacts, IFAS Extension, Florida American Planning Association, Florida Planning and Zoning Association, Florida 	1,3	4 -5

<p>City-County Managers Association, Florida Regional Council Association, Florida Homebuilders Association and other contacts. [TT8, RS8, AP16, SA24]</p> <ol style="list-style-type: none"> 2. Distribute and post the initial database for corrections and additions [KP8]. 3. Compile and continually update the database during the time of the contact. [AP16, SA24] <p><u>Purpose of the database and how will it be used (needs to be sortable)</u></p> <ul style="list-style-type: none"> • <i>Select people for surveys and interviews</i> • <i>Advertise the program and trainings and services,</i> • <i>Identify partners and speakers</i> • <i>Get better informed</i> • <i>Track program participants</i> • <i>Do surveys on programs and short needs assessments</i> • <i>Share with other Reserve units for mailing lists</i> <p><u>Governmental units to be included in the database</u></p> <ul style="list-style-type: none"> • <i>Counties and Cities: Duval, St. Johns, Flagler, Franklin, Gulf, Wakulla, Liberty, Calhoun, Gadsden, Collier, Lee, Charlotte, Miami-Dade, Sarasota, Manatee Counties and their major cities:</i> • <i>Utility authorities</i> • <i>Special districts: port authorities, boating, navigation, CRAs,</i> • <i>Water Management Districts</i> • <i>Regional Planning Councils</i> • <i>NOT Soil conservation districts or DEP, DOT and other State agencies</i> <p><u>Database development plan</u></p> <ul style="list-style-type: none"> • <i>Database to be done in excel or in a format that can be translated to excel.</i> • <i>Bob will take the lead on the database.</i> • <i>We will do an initial assessment of your current databases and available databases and do a proposal with a list the fields and metadata and scope of the database. We will work with Joy and Rosalyn as CTP contacts.</i> 		
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TASK 8	OBJ.	MO.
<p>Based on gaps identified from the literature review, and using the database created, the Contractor shall design and conduct research into the needs of the target audience through surveys, questionnaires, interviews, focus groups and research. The exact method of surveying the audience shall be clarified through the initial literature review, with input from the CTP Coordinators and the Workgroup, but will likely include:</p> <ul style="list-style-type: none"> • An initial postcard sent via mail to officials statewide to tell them to expect a survey; • An email regarding the online survey; • Phone calls to those that who have not replied; and, • A final project thank you letter, including a brochure and announcement for the pilot training (as regionally as applicable) to those who participated. <p>Materials produced for this project shall include the standard attribution to NOAA and shall be influenced by the initial meeting Workgroup and the Contractor’s knowledge of branding of outreach materials to increase long-term impact.</p> <p><u>Contractor Activities</u></p> <ol style="list-style-type: none"> 1. Develop a draft guide for enhanced consideration of estuary and other environmental issues in land use decisions. The guide will identify needs/concerns from different stakeholder perspectives, provide land use decision process maps, identify when and how environmental and other expert information is integrated with stakeholder input and legal requirements and offer suggestions for success. [TT16, JH8, RS8, AP16] 2. Prepare materials and facilitate work sessions with stakeholders on: 1. Comprehensive Plan amendments and Local Development Regulation and Zoning changes, 2. Development reviews and building permits, and 3. Other planning and permitting processes. [TT48, AP16] 3. Send sections of the guide to appropriate participants for review and comment (People will be more interested in contributing to a practical tool than responding to long survey and will learn from reviewing it). [TT8, JH4, RS4, AP16] 4. Conduct a short survey to assess priority needs of public officials and stakeholders. [TT8, JH4, RS4, AP24, KP24, SA24] 5. Develop a best practices guide for engaging elected and appointed officials and local planners. Consult with educators, trainers and facilitators to refine it. [TT32, JH8, RS8] <p><u>Comments</u></p> <ul style="list-style-type: none"> • <i>Do we do an email survey and then follow-up with interviews or do qualitative work, conduct a survey, produce a product and then have a critique of the product to both get good results and build relationships.</i> • <i>There are some commissioners who will be interested in being more</i> 	1,3	4 -5

<p><i>involved.</i></p> <ul style="list-style-type: none"> • <i>Do some interviews (beta test), then a general survey, next develop a guide (menu, marketing tool, BMPs for how CTPs, elected officials and other partners can work together and for what each has to contribute) on the topics and services that are preferred, finally, review and refine the product, pilot test one service (compare to alternatives in the debriefing) and topic and report.</i> • <i>Make sure that the questions and the people don't create a bad impression on the elected officials. This is about relationship building. The CTPs need input on the process. We all need to be on board [agree on what is going to be done, how and by whom].</i> • <i>Need to be specific about desired behavior changes related to specific projects, e.g. comp plan changes, permitting, etc. Tie surveys to real issues relevant to the officials.</i> • <i>We may need to brainstorm desired behavior changes: use of pervious paving, changes in codes and ordinances to be consistent with BMPs, contact CTP when there are issues, will you consider these perspectives (?) in a decision, demonstrating an understanding the value of protected areas (it is a criteria in their decision matrix), landscapers use BMPs, better meetings, convening role used, etc.</i> • <i>Make sure we aren't telling elected officials they don't know something. Watch the wording. We give them the science-based information. They make the decision. Have them see us as a service.</i> <p><u><i>Methods and Formats for the Assessment.</i></u></p> <ul style="list-style-type: none"> • <i>Interviews</i> • <i>Surveys</i> • <i>Focus groups with specific audiences</i> • <i>Workshops with diverse audiences</i> <p><u><i>Organizations, Websites, Studies and Other Relevant Resources</i></u></p> <ul style="list-style-type: none"> • <i>Florida National Estuary Programs</i> • <i>National Estuary Research Reserve System</i> • <i>Florida Coastal Management Program</i> • <i>NOAA Coastal Service Center (Similar mission)</i> • <i>Florida Sea Grant</i> • <i>COMPAS (do you mean COMPASS?)</i> 		
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It was agreed that determining the details on the additional tasks needs to wait until there is progress on the tasks discussed already.

Schedule

The group reviewed the tasks and developed this proposed schedule.

Task	Date
1. Conference call with CTP Coordinators	April 12
2. 2-day planning meeting with CTP Coordinators	May 8-9
3. Meeting with CTP Coordinators and key partners, involve them at various points. Have a physical or virtual meeting later.	various
4. Summary report of planning sessions	
5. Review existing studies, documents and literature Work plan CTP review (call June 19) Authorization to start the literature review	June 9 June 16 June 23
6. Report summarizing the results of the literature review	August 11
7. Database of elected and appointed officials and CTP database to Bob Work plan (call June 19) Complete	May 19 June 9 August 11
8. Design and conduct research into the needs of the target audience Initial interviews Survey	August 4 August 25
9. Report on the findings from the needs assessment	September 15
10. Determine the most effective program/outreach method and design a pilot project	October 6
11. Conduct and test the pilot project	November 10
12. Produce the final project report	December 8

Next steps

- Tom will send a project packet sent to CTPs with the contract and the proposal.
- CTPs will send their databases to Bob
- CTPs will send visitor numbers to Julie
- Joy will send the needs assessments and market analysis (see assignments).
- CTPs will send references to look at in literature review.
- Tom will send the meeting report.

Concluding Comments

Each person was given an opportunity to share what they felt was accomplished, still needs to be done or insights to consider as the project goes forward.

1. There is a wealth of things here that will lead to a good work product. We need to think about it and figure out how to best do this. It is still a little fuzzy. There are some great ideas that may best be done as part of another project.
2. Let's hope the lines of communication are open. We need to stick to the structure and make sure we don't totally reinvent the wheel as we go along.
3. We really touched on a lot that will be useful. We need to stay on track and not diverge. I appreciate the facilitation and note taking.
4. Ditto and yea team!!!
5. I am glad we have talked about marketing and building consensus among the CTPs. I was concerned about whether we could complete our agenda and it was more than accomplished. This can be really exciting. It is a different approach to a needs assessment than others have done. It has been a real gift to work with you three. I look forward to learning more about these assessments.
6. Julie and I met at a "Becoming an Outdoor Women retreat. It originated with a walk in the woods.
7. It is a good start for me. It is going in the right direction. I will get the materials and get up to speed.
8. This is a great work and we have made done a lot to clarify what needs to be done. We will need to do more to assure the focus is on what is most important and can be done with the time and resources available.

Coastal Training Assessment Project Team Meeting

May 8-9, 2006

Gainesville, FL

Proposed Day One Meeting Agenda

10:00 Opening

Meeting purpose and agenda review
Personal introductions and expectations

10:20 Regional CTP Strategic Direction

CTP program overview and requirements - Tabitha
CTP power point presentation - Rosalyn
Review issues in our communities, list and prioritize
What are the NERRs issues we care most about, e.g. docks/piers, landuse, etc.?
CTP Service Assessment: best liked, most impact, what we do best, etc.
Identification of helping and hindering forces
Shape a big picture regional identity/mission statement
Consider how we can best present ourselves to others?

12:00 Lunch

1:00 Clarify Project Purpose and Team Participation

Share measurable/describable expectations for each objective
 Training and information needs
 Create curriculum, publications and other training aids
 Partner to identify opportunities for training initiatives
Identify each team member's education, experience and interests can contribute to obj.
Discuss general team member roles

2:00 How Do We Define the Needs

Refine and prioritize list of audiences
What science based-skills and information are needed by elected officials?

3:00 Break

3:15 Training and Outreach Approaches

Identify alternative approaches: formal training, technical training, field based experiences (with others), consultation, consensus building
Develop and evaluate approaches
Seek consensus on which approaches to focus on.

4:00 Assessment Methodologies

Define and prioritize the questions to be answered
Identify assessment alternatives
Develop and evaluate alternatives
Seek consensus on which alternatives to focus on.

6:00 Adjourn for the Day

Proposed Day Two Meeting Agenda

8:00 Opening

Insights from over night
Review and refine the agenda for day 2

8:15 Project Tasks

Consider if any changes are needed in the list of tasks
Agree on approach to each task: questions/considerations, activities, responsibilities, date

8:30 Tasks 3-4 Meeting with Key Partners – CTP Florida Workgroup

Agree on objectives
Identify key partners
Specify preparation tasks and responsibilities: invitations, materials, agenda, etc.

9:15 Tasks 5-6 Literature Review

Agree on literature review objectives and format for the report
Define the scope of the review
Identify known sources and guidelines for research

9:45 Break

10:00 Task 7, Database of Elected and Appointed Officials and Land Use Policy Makers

Agree on the purpose of the database, how will it be used?
Identify potential existing databases and determine steps to assess accessibility
Consider alternatives for creating/maintaining or accessing databases
Specify steps in a decision process

10:30 Task 8-9 Design and Conduct Research into Needs of the Target Audience

Review research questions and methodologies from day one
Determine next steps, responsibilities and schedule.

11:30 Task 10-11, Design and Test the Pilot Project

Determine the audience, location and date
Discuss evaluation methods.

12:00 Lunch

1:00 Task 12, Final Report

Refine a draft contents
Suggest guidance for the product.

1:20 Other Issues

Contract issues and details
Bin items and other issues

2:00 Closing

2:15 Adjourn

NOTE: These are agreed on by CTP coordinators and NOAA (ERD), but are preliminary to be revisited as they are used and more data is collected over time – I would not publish these as part of a report

Appendix C

**MINIMUM PERFORMANCE REQUIREMENTS
NERRS COASTAL TRAINING PROGRAM
FISCAL YEAR '06 GRANT CYCLE**

Rationale for monitoring performance

The NERRS Coastal Training Program (CTP) serves as the NERRS flagship program for knowledge and information transfer to ensure that science-based knowledge is available to those individuals making decisions about the coast.

Since early 2000, NERRS Education Coordinators, CTP Coordinators, the CTP Oversight Committee and a CTP Performance Monitoring Workgroup have worked hard to develop a logic model and framework for measuring performance of the Coastal Training Program. This logic model provides a framework for monitoring progress towards addressing Goal One of the 2003 NERRS Strategic Plan: *“To improve coastal decision making by generating and transferring knowledge about coastal ecosystems”*.

As the CTP continues to develop and mature, it is increasingly important to monitor our performance at a system-wide level, in order to:

- Quantify the types of audiences we are reaching with our programs;
- Provide quantifiable data for program evaluation
- Assess effectiveness in meeting the goals and objectives of the CTP;
- Assess participant satisfaction with different training methodologies;
- Identify and establish significant trends in audiences and issues that could influence NERRS policy and strategic planning, as well as other organizations and programs that target coastal decision-makers;
- Attract partners interested in working with a successful program;
- Increase accountability to our constituents and stakeholders;
- Document achievements for use in fund raising efforts.

Performance Indicators

Framework	System-Wide Performance Indicators
General Quantitative Measures	<p>Indicator 1 <i>Events</i> Total # of CTP activities (Events & Technical Training) offered during reporting period.</p> <p>Indicator 2 <i>Organizational Diversity & Evenness</i> Total # and type of organizations, entities represented by participants during the reporting period. Organized into 11 defined org. categories</p> <p>Indicator 3 <i>Participants</i> Total # of CTP participants involved in discrete</p>

	CTP activities (Events and Technical Training) over the reporting period. Indicator 4 <i>Contact Hours</i> Total # of contact-hours for reporting period.
Framework	System -Wide Performance Indicators
CTP Goal: Better-informed decision-making by local and regional Coastal Decision-Makers to improve coastal stewardship.	
CTP Objective 1: Local and regional Coastal Decision-Makers increasingly apply science-based knowledge and skills in their work related to NERRS priority issues.	Indicator 5 % of CTP participants reporting the intention to apply science-based knowledge and skills in their work related to NERRS priority issues as a result of training event.
Key Result 1.1: Coastal Decision-Makers increase their scientific understanding of NERRS priority issues.	Indicator 6 % of CTP participants reporting increased scientific understanding of NERRS priority issues as a result of training event.
Key Result 1.2: Coastal Decision-Makers improve their abilities to access science-based resources (e.g., people, information, tools and technologies) related to NERRS priority issues.	Indicator % of CTP respondents reporting increased access to resources relevant to their work as a result of the training event.
Key Result 1.3: Coastal Decision-Makers increase skills related to technologies and/or best management practices for NERRS priority issues.	Indicator 8 % of CTP respondents reporting increased skills relevant to NERRS priority issues.
CTP Objective 2: Local and regional Coastal Decision-Makers increasingly apply diverse perspectives across sectors and disciplines related to NERRS priority issues.	Indicator 9 % CTP respondents reporting the intention to apply new perspectives learned through networking and collaborations at the training event.
Key Result 2.1: Coastal Decision-Makers increase the diversity of their contacts regarding NERRS priority issues.	Indicator 10 % of respondents reporting that they intend to make new contacts about NERRS priority issues as a result of this training event.
Key Result 2.2: Coastal Decision Makers are increasingly aware of collaboration opportunities regarding NERRS priority issues.	Indicator 11 % of CTP respondents reporting that they are more aware of opportunities for collaboration regarding NERRS priority issues as a result of the training event.
Qualitative Measures	Indicator 12 % of CTP respondents that were more than satisfied with the content of the training activity. Indicator 13 % of CTP respondents that were more than satisfied with the format of the training activity.

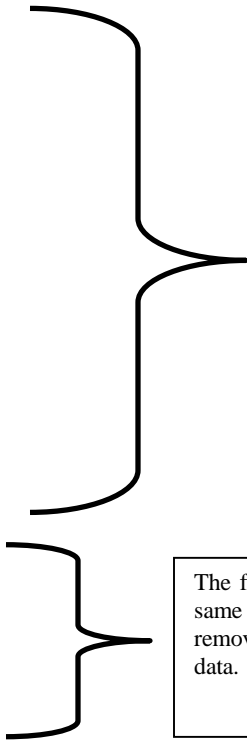
	<p>Indicator 14 % of CTP participants that were more than satisfied with the networking opportunities provided by the training activity.</p>
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Minimum Performance Requirements for CTP

The CTP Performance Monitoring Workgroup reviewed baseline data from the period June 2004 – July 2005. The Workgroup recommends the following minimum performance requirements be implemented for the FY '06 NOAA grants cycle.

- **Indicator 1** - No minimum requirements set due to variability in approaches across the system*
- **Indicator 2** - No minimum requirements set due to variability in approaches across the system*
- **Indicator 3** - No minimum requirements set due to variability in approaches across the system*
- **Indicator 4** - 2250 Hours annually – Set by taking the mean of the contact hours per Reserve (as reported in the baseline data).

- **Indicator 5** - 79%
- **Indicator 6** - 83%
- **Indicator 7** - 72%
- **Indicator 8** - 72%
- **Indicator 9** - 86%
- **Indicator 10** - 70%
- **Indicator 11** - 80%
- **Indicator 12** - 77%
- **Indicator 13** - 80%
- **Indicator 14** - 63%



Minimum performance requirements were set by ranking the baseline performance data from highest % to the lowest % (within each indicator) for Reserves system-wide. The minimum performance requirements were set at the % that was reported by the Reserve listed fifth from the lowest ranking.

The following performance standards were set using the same approach as indicators 5-11 except the outliers were removed before ranking in an attempt to normalize the data.

* Twelve months targets for indicators 1-3 will be determined by each Reserve and included in annual grant applications.

Due to inconsistent reporting and lack of data from 20% of reserves in the 04-05 baseline data set, these requirements may be revised after reviewing data received from the FY'06 grant cycle.

What These Minimum Performance Requirements Mean

Reserves receiving funds for CTP program implementation are required to report their performance monitoring data. This data is reported as part of a Reserve's six-month progress report. Of the 14 listed indicators, Reserves are required to report on indicators five and nine (at a minimum), and must also report all of the remaining indicators that are relevant to the types of programs offered by their Reserve during the reporting period. Data from all reporting Reserves will be collated by ERD on an annual basis. The CTP Performance Monitoring Workgroup will review the annual performance monitoring data in December '06 to compare reported data to required performance minimums. The Workgroup will be responsible for identifying exemplary Reserves as well as Reserves that are in need of mentoring to improve performance. The Monitoring Workgroup will provide a CTP Performance Mentoring Team with results of the comparison. Exemplary Reserves are defined as the three Reserves with the highest percentages for indicators 5 and 9. If funding is available, these Reserves may be asked to attend the March managers meeting to share their success stories with the Reserve Managers and ERD staff.

Reserves will be identified as requiring mentoring if, based on their annual performance reporting, a Reserve does not meet the required performance standard for:

Either of the objective level indicators (5 or 9]

- Or at least 3 of the remaining indicators
- Or, does not submit any performance measurement data

If any of these conditions are met, the **CTP Performance Mentoring Team** will contact the Reserve CTP Coordinator within 60 days. The Mentoring Team is tasked to assess program parameters and provide support to the Reserve's CTP to improve their performance. This mentoring team is made up of:

- 2 CTP Coordinators
- 2 Managers
- An ERD Site liaison
- ERD National CTP Coordinator

Note: This CTP performance mentoring team will include representation from the CTP Oversight Committee: one manager and one CTP Coordinator. Nominations for these representatives will be solicited on an as needed basis. The group will be organized in the summer of 2006.

The CTP Performance Mentoring Team is responsible for:

- Being thoughtful and supportive
- Suggesting techniques that may improve data gathering and evaluation results
- Introducing alternative CTP delivery techniques to better address event objectives
- Assessing Reserve's efforts in audience assessments to ensure their needs are being addressed
- Clarifying reporting requirements to decrease the likelihood of misreporting as the cause for below standard performance
- Preparing a report to the Oversight Committee and ERD program liaisons that includes a summary of performance issues and mentoring activities offered to Reserves

The **Performance Monitoring Workgroup** is responsible for:

- Reviewing annualized summary CTP performance monitoring data
- Forwarding data and information for Reserves identified as requiring additional support to the CTP Performance Mentoring Team
- Identifying Reserves with exemplary CTP programs

- Revising minimum performance requirements as appropriate in August 2007 using FY '06 performance data (Three reporting periods).

Appendices B

Literature Review Sources

These sources were used to identify issues, decision procedures and Coastal Training services for the survey, to identify themes and gaps in the literature and inform recommendations for responding to the needs of elected and appointed local officials.

Florida Department of Environmental Protection

- Florida Department of Environmental Protection, Coastal Management Program <http://www.dep.state.fl.us/cmp/issues/index.htm>
- Florida Department of Environmental Protection, Coastal Managed Areas <http://www.dep.state.fl.us/COASTAL/>
- Florida Department of Environmental Protection “Coastal Partnership Initiative.” <http://www.dep.state.fl.us/cmp/grants/fcpmgrants.htm>

Florida National Estuarine Research Reserves, NERR, Coastal Training Programs

- “An Analysis of the Apalachicola NERR Coastal Resources Management Training Market.” [Not approved] Great Lakes Environmental Finance Center, Maxine Goodman Levin College of Urban Affairs, Cleveland State University, October, 2004
- “An Assessment of the Coastal Training Program Needs of the Apalachicola NERR Region.” [Not approved] Cleveland State Univ. Great Lakes Environmental Finance Center, Oct. 2004
- “Coastal Training Market Analysis Final Report.” Maxine Goodman Levin College of Urban Affairs, Cleveland State University Great Lakes, Aug. 2002
- “Marketing Plan and Strategy Document.” Apalachicola National Estuarine Research Reserve, 2004/05 – 2007/08
- CTP Florida Workshops of Department of Environmental Protection. <http://www.dep.state.fl.us/ctp/PastClasses.asp>

National Oceanic & Atmospheric Administration, NOAA

- “NERR Strategic Plan, 2005-2010.” http://nerrs.noaa.gov/Background_StrategicPlan.html
- Corridore, Angela. “Enhancing Visibility And Support For The NERRS Coastal Training Program.” National Estuarine Research Reserve Association, Sep. 2005
- “Minimum Performance Requirements NEERs Coastal Training Program Fiscal Year ’06 Grant Cycle.”
- “Coastal Training Program-Program Highlights 2005.” National Estuarine Research Reserve System
- “Trends Analysis of Coastal Training Programs in the National Estuarine Research Reserve System.” Cleveland State University Great Lakes Environmental Finance Center, Nov. 2004
- “Coastal Resources Management Training Needs Assessment: Strategies and Opportunities.” Cleveland State University Great Lakes Environmental Finance Center, June 2003

Other National Estuarine Research Reserves, NERR, Coastal Training Programs

California

- “Coastal Training Program Web Survey.” Elkhorn Slough National Estuarine Research Reserve, Spring 2005

Maine

- “Strategic Plan 2003-2006 - Coastal Training & Information Program.” Wells National Estuarine Research Reserve at Laudholm Farm
- “Market Analysis and Needs Assessment - Coastal Training & Information Program.” Wells National Estuarine Research Reserve at Laudholm Farm
- “Vision and Training Schedule - Coastal Training & Information Program.” Wells National Estuarine Research Reserve at Laudholm Farm
- Feurt, Christine. “Science translation for non-point source pollution control -A cultural models approach with municipal officials.” Wells National Estuarine Research Reserve & Department of Environmental Studies, University of New England, March 27, 2006

Massachusetts and Rhode Island

- Bowen, Bob and Riley, Cory. “Socio-Economic Indicators and Integrated Coastal Management.” Environmental Coastal and Ocean Sciences, University of Massachusetts, Boston.
- Dale, Duane. “An Assessment of the Training Needs of the Local Officials of the Coastal Municipalities of Massachusetts with regard to Coastal Issues.” Sep. 20, 2002
- Torell, Elin. Tobey, James and Jakubowsky, Karin. “An Impact Evaluation of Selected Workshops and Outcome Map for the Coastal Training Program.” The Waquoit Bay NERR, December 14, 2004
- “Summary of Audience Needs Assessment of Municipal Officials 2002.” Massachusetts Coastal Training Program, 2002
- “Market Analysis of Coastal Management Training Programs in Massachusetts.” University of Massachusetts Donahue Institute, Jan. 2002
http://www.coastaltraining.org/training_providers/index.htm
- “The Narragansett Bay Watershed Coastal Training Program Strategy Document.”
- Massachusetts NERR Needs Assessments (Several links)
http://www.coastaltraining.org/training_needs/index.htm

New Jersey

- Duda, Mark Damian, et. al. “Coastal Training Needs Assessment and Market Inventory For the Jacques Cousteau National Estuarine Research Reserve.” Volume1. Responsive Management, 2003
- “Market Analysis and Needs Assessment.” Jacques Cousteau NERR, Coastal Training Program http://marine.rutgers.edu/cousteau/coastal_training/ctp_analysis.htm
- “Understanding Land Use Permitting.” Online Seminar. www.jcnerr.org/coastal_training

North Carolina

- “The North Carolina National Estuarine Research Reserve’s Coastal Training Program Presents: ‘Stormwater Management and Sustainable Development Workshop’.” Nov.1, 2006

- “Carteret County Town Planning Boards Needs Assessment.” The North Carolina Coastal Training Program, 2006

Ohio

- O’Brien, Kevin, et. al. “Coastal Training Strategy for the Ohio Lake Erie Basin.” Great Lakes Environmental Finance Center, Cleveland State University, June 2004
- O’Brien, Kevin, et. al. “Coastal Resources Management Training Needs Assessment: A Report on Seven Focus Groups in Northern Ohio.” Cleveland State University Great Lakes Environmental Finance Center, Feb. 2003
- O’Brien, Kevin, et. al. “Coastal Resources Management Training Needs Assessment: Strategies and Opportunities.” Cleveland State University Great Lakes Environmental Finance Center, June. 2003
- “Ohio CTP Needs Assessment Draft [Survey].” 3/23/06
- “Coastal Training Market Analysis – Final Report.” Great Lakes Environmental Finance Center, Cleveland State University, August 2002

Oregon

- “Assisting Coastal Decision Makers in the Lower Columbia Biogeographic Province: A Strategy for the Coastal Training Program.” South Slough National Estuarine Research Reserve Coastal Training Program, July 18, 2003
- South Slough National Estuarine Research Reserve (Oregon) Coastal Training program Description. <http://www.Oregon.gov/DSL/SSNERR/CTPmain.shtml>

South Carolina

- “Training Needs Assessment of Professional Coastal Decision Makers.” North Inlet-Winyah Bay & ACE Basin National Estuarine Research Reserves Coastal Training Program, April 2006
- Coastal Training Program Description. North Inlet – Winyah Bay NERR, <http://www.northinlet.sc.edu/training/Default.htm>

Virginia

- “Chesapeake Bay National Estuarine Research Reserve in Virginia.” Coastal Training Program

Washington

- Angell, M.Cathy. “Needs Assessment Report – Coastal Training Program.” Padilla Bay National Estuarine Research Reserve, July 2002
- Angell, Cathy. “An Inventory of Coastal Management Training Programming in Washington State.” Market Analysis Summary. Padilla Bay Reserve, Coastal Training Program, January 2002

Other Natural Resources Sources

- Charles, Tony and Pew Fellow in Marine Conservation. “Systems Approaches and Community Approaches for Coastal Planning” Saint Mary's University, Halifax N.S., April 3–5, 2003

- Hazel, F, et. al. “Nearshore Marine Ecological Monitoring Workshop Proceedings.” Bedford Institute of Oceanography, Halifax, NS, Canada, February 2006.
- Kildow, Judith. “National Ocean Economics Program ‘Mapped Facts and Figures Florida’s Ocean and Coastal Economies.’” California State University Monterey Bay, Sep. 2006
- McKenzle-Mohr, Doug. “Community-Based Social Marketing.”
- Schwartz, Stuart S., “Riparian Setbacks—Technical Information for Decision Makers.” Chagrin River Watershed Partners, Inc., Jan. 2006
- Nonpoint education for Municipal Officials (NEMO) 2005 to 2006 (7th Year), Joint Report.” Maine Department of Environmental Protection.

Florida Conferences and Associations

- “Florida Local Environmental Resource Agencies (FLERA).”
<http://www.flera.org/conference.html>
- “2000 FLERA Annual Conference Business Meeting.”
<http://www.flera.org/pdf/2000.FLERA.brochure.draft2.pdf>
- “2004 FLERA Annual Meeting ----- Jupiter Beach Resort Directions.”
http://www.flera.org/pdf/04_Conference_Announcement_with_Speakers.pdf
- “2006 Annual Conference.” <http://www.flera.org/pdf/06%20AC%20Brochure.pdf>
- “Florida Chamber of Commerce Environmental.”
<http://www.floridaenet.com/pdfs/2006summerschool.pdf>
- “Florida Association of Counties.”
<http://www.fl-counties.com/fac%20workshops.htm>
- “Florida League of Cities.”
http://www.flcities.com/conference/announcement_workshops.asp
- “Ocean Action: Solutions for Saving our Seas.” Florida Marine Science Educators Association 2006 Conference, April 28-30.
- “Growth Management and Environmental Permitting Sort Courses.” Florida Chamber of Commerce
- “2006 FLC Conference Tentative Program.” Florida League of Cities, Inc.
- “Water-Dependent Coastal Communities and Businesses.” Florida Sea Grant Strategic Planning
- Florida Association of Counties Directory
- Swett, Robert and Fann, Susan “A Survey of Stakeholders to Determine Florida Sea Grant’s 2006-2009 Programmatic Objectives for Coastal Communities and Water-Dependent Businesses.”

Florida Commission Agendas

- Collier County Board of County Commissioners Agendas - July25, 2006/ June 20, 2006/ June6, 2006/ May 23, 2006/ May9, 2006/ April 25, 2006/ Mar 23, 2006/ Feb 28, 2006/ Jan 24, 2006/ Dec 13, 2005/ Nov 15, 2005/ Oct.11, 2005/ Sep. 13, 2005
- Franklin County Board of County Commissioners Agendas - 07/18/06, 07/05/06, 06/20/06, 06/06/06, 12/20/05, 12/06/05, 11/01/05, 10/18/05, 10/04/05, 09/06/05, 08/02/05, 05/13/05, 04/05/05, 03/15/05, 02/15/05, 01/04/05

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Beach nourishment/sand availability					X	X		
Coastal erosion					X			
Encroachment into the required 10 feet rear yard setback								
Rezoning of property								
Marina impacts and management; Clean marine program								X
Tucker's Landing PUD								
Beach erosion					X			
Shoreline stabilization								
Shore erosion causes	X	X	X				X	X
Coastal parks and natural areas	X							
Coastal construction control line program					X			
Coastal protection regulation	X	X						X
Coastal data information					X			
Construct seawall within Critical Habitat Zone								
Construct fence within Critical Habitat Zone								
Construct Swimming pool 7 feet into Critical Habitat Zone								
Construct an open deck 12 feet into Critical Habitat Zone								
Boardwalk and observation platform within the Critical Habitat Zone								
Watershed Assessment and Planning						X	X	
Watershed Invasion Exotics								
Dredging								
Coastal High Hazard area								
Variance to relocate an existing house landward of the Coastal Construction Control								
Small Docks and piers management							X	
Bulkheads/Marsh shoreline stabilization alternatives								X
Functions and future role as the County environmental advisory board								
Coastal Growth Management								
Submerged Land Aquaculture Lease								
Coastal protection regulation								X
Coastal zone management projects								
Brownfields redevelopment								X
Growth and economic development issues								X
Heritage tourism								X
Maritime/science museums								X
Nature-based tourism								X
Seafood industry taskforce meeting								
Better Site Design/ Low Impact Development								X
Coastal building codes	X	X						
Sustainable economic and coastal development						X	X	X
Creating watershed management plans							X	X
Urban/ suburban sprawl							X	
Infrastructure planning (e.g. coastal roads)							X	
Community planning and zoning							X	
Florida's coastal building regulations						X		
Coastal wetlands	X	X	X					
Population shifts/Demographic changes	X	X	X				X	X
Conservation lands management/acquisition							X	
Managing growth impacts to cultural resources							X	X
Retrofit and redevelopment opportunities							X	
Green practices (building, landscape, lodging)	X	X	X				X	
Sovereign lands								X
Mitigation and conservation banking							X	X
Agricultural uses -- plant and livestock							X	

Commercial fishing	x			x
Recreational fishing				x
Shipping and shipping activities			x	x
Fisherman regulations				
Public access issues			x	x
Fish and Wildlife regarding the easement				
Fish Branch Basin Box Culvert Extension Project Site				
Manatee and boating activity data				
Maintain FWCC waterway signs				
Port facilities				

NERR Strategic Plan (National level)
(http://nerrs.noaa.gov/Background_StrategicPlan.html)

NERR Priority Coastal Management Issues:

1. Land Use and Population Growth
Pressure to develop land in coastal areas is escalating at more than twice the rate of population growth. Land use changes can significantly impact coastal and estuarine species and habitat.
2. Habitat Loss and Alteration
Estuarine and coastal environments continue to be altered and eliminated due to dredging, dams recreational and commercial uses, flood and hazard mitigation, residential and infrastructure development, commercial port activities, and agriculture.
3. Water Quality Degradation
Improving the condition of coastal water quality is a goal of the Coastal zone Management Act and an ongoing struggle for all coastal regulatory agencies.
4. Changes in Biological Communities
Biological communities are changing as a result of invasive species, over-harvest, climate changes, pollution, and habitat destruction. These problems impact the natural interactions and linkages and lead to cascading indirect effects throughout the ecosystems.

NERRS 2005-2010 Strategic Plan: Strategies

1. Strengthen the protection and management of representative estuarine ecosystems to advance estuarine conservation, research and education.
2. Increase the use of reserve science and sites to address priority coastal management issues.
3. Enhance people's ability and willingness to make informed decision and take responsible actions that affect coastal communities and ecosystems.

Florida Department of Environmental Protection
Coastal Management Program – Issue Focuses
(<http://www.dep.state.fl.us/cmp/issues/index.htm>)

1. Coastal Systems. Coastal Erosion, Dune Stabilization and Protection, Coastal Construction Control Line Program, Coastal Data Information and Beach Erosion
2. Beach Erosion Control Program. A program established for the purpose of working in concert with local, state and federal governmental entities to achieve the protection, preservation and restoration of the coastal sandy beach resources of the state.
3. Clean Marina Program. The Florida Department of Environmental Protection's Division of Law Enforcement formed the Clean Boating Partnership to work with private organizations such as the Marine Industries Association of Florida in their commitment to improving the health and cleanliness of our waterways. There is a direct link between clean water and the future of the marine industry. Clean water is essential for the well being of our communities.
4. Florida's Coastal Building Regulations. The state of Florida began regulating shoreline development in 1971. Along the beachfront, the state imposes stricter construction standards to minimize damage to the natural environment, private property and human life.
5. Non-point Source Pollution. Non-point source pollution is caused by storm water runoff. Water flowing over, the land, during and immediately following a rainstorm is termed storm water runoff. Storm water runoff carries fertilizers, pesticides, soil, heavy metals, oils, grease, pathogens, debris and any other materials that accumulate on the land between rains into a receiving water body. The receiving water body in Florida's diverse water system could be a lake, river, estuary, or the groundwater system, all of which may ultimately drain into the coastal waters of the state.
6. Sand Dune Restoration. Sand dunes are naturally occurring dynamic coastal features, which are formed by the accumulation of wind blown sand. When sand dunes are damaged from storms or human activity they can be repaired or restored. The basic steps are simple but careful planning is needed. Your dune restoration project should be designed to create a dune that matches the existing natural dune pattern in the area. You can help speed up nature's work by using sand fences and dune plants to collect sand more rapidly.
7. Septic Tanks. A septic tank system serves as an on-site wastewater treatment system in places where public sewers are not available. One third of all Florida homes, about 1.6 million households, use septic tanks. The septic tank system is an underground system of pipes and tanks designed to treat bathroom, kitchen and laundry wastewater through naturally occurring bacteria and microorganisms. In older homes, a septic system may be a pipe leading from the house to a cesspool. In newer homes, a septic system usually is made of a series of pipes connecting a septic tank, distribution box and a leach, or drain field.
8. Water Quality Monitoring

CTP Florida Workshops:
Listed on the DEP Website
(<http://www.dep.state.fl.us/ctp/PastClasses.asp>)

1. Sea Turtle Workshop
 - Sea turtle nesting season biology
 - Sea turtle patrol lighting regulations
 - How to volunteer with the GTMNERR Sea
2. Landscape Design Workshop
 - Water shed
 - Landscape Design Principles
 - Florida Years and Neighborhoods Program
3. River to Sea Workshop
 - Scrub Habitat Restoration
 - Prescribed Burning
 - Prescribed Chopping
 - Florida Scrub Jay
4. Energy and resource Efficient Landscape Design: A Guide for Florida's Landowners.
5. Storm water, Erosion and Sediment Control Inspector Training and Certification
6. Sea Turtle Monitoring Volunteer Training 2005
7. Florida Master Naturalist Coastal systems Module
8. Sea Turtle Seminar and Volunteer Orientation
9. River to sea Preserve Coastal Strand Restoration Meeting
10. Florida Master Naturalist Freshwater Wetlands
11. Habitat Conservation, Land Use and Transportation Planning In Black Bear County
12. Master Naturalist Coastal Systems Course
13. There is more to Florida than Swamps and Gators
14. **Watershed Planning Kit** **Watershed Assessment and Stormwater Planning**

Survey Results Apalachicola CTP Market Analysis

Source: An Analysis of ANERR Coastal Resources Management Training Market, The Great Lakes Environmental Finance Center, maxine Goodman Levin College of Urban Affairs, Cleveland State University, October 2004

10 Issues Most Covered by Other Training Providers:

1. Water Quantity and Quality
2. Coastal Wetlands
3. Estuaries
4. Invasive Species
5. Conservation Lands Management
6. Endangered and Threatened Species
7. Cultural and Historic Resources
8. Habitat Restoration
9. Sustainable Economic and Coastal Development
10. Wildlife Management

10 Issues Least Covered by Other Training Providers:

1. Shipping and Shipping Activities
2. Boating Pump Out
3. Home Septic Systems
4. Port Facilities
5. Sewage outfalls/combined sewer overflow
6. Beach Nourishment/ Sand Availability
7. Clean Vessel Act and Issues
8. Oil and Gas Drilling/ Mineral Extraction
9. Siltation Management
10. Wastewater Treatment Methods

Washington NERR Survey Results:

<http://www.surveymonkey.com/DisplaySummary.asp?SID=207143&U=20714332477>

Training topics considered to be highly relevant:

Shoreline Modifications	84%
Shoreline and Environmental Laws	76%
Buffers	75%
Near shore Habitats	75%
Fisheries – Habitat and Ecology	68%
Court and SHB decisions on the Shoreline Management Act	67%
ESRI's GIS Products	61%
Intergovernmental coordination and integration for coastal management	61%
Overwater Structures	60%
Near shore Geological Processes	59%

WDNR's Shore Zone Inventory	59%
Environmental Impact Assessment	58%
Stormwater Management	58%
Stream-bank Stabilization	57%
Watershed Management	56%
Estuarine Wetlands	56%
Unforeseen Consequences of ESA listings	55%
Riparian Habitats	53%
Riparian Geological and Hydrological Processes	53%
Adaptive Management	54%
Understanding ESA Jargon	53%
Project Monitoring	52%
Watershed Assessment	51%
Integrated Permit Processing	47%
Freshwater wetlands	47%
Enforcement	45%
Water-dependent Use Interpretation	45%
Non-Point Source Pollution	43%
Marina Siting and Planning	43%
Hazards: Landslides	41%

Training topics considered to be Moderately Relevant:

Landscape and visual resource analysis	56%
Invasive Species	53%
Climate change impacts	52%
Hazards: earthquakes, tsunamis and seiches	52%
Aquaculture	50%
Nutrient Loading	49%
Marine Protected Areas	48%
Public Access Planning	47%
Freshwater Wetlands	47%
Non-point source pollution	46%
Hazards: flooding	46%
Archaeological and historic sites	46%
Enforcement	45%
Agriculture – effect on watershed properties	44%
Economic and fiscal analysis	43%
Hazards: landslides	41%
Sand and gravel mining – effort on watershed processes	37%

Training topics considered to be not relevant:

Urban waterfront revitalization	37%
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ANERR's CTP Program Topics from Past 3 Years (and upcoming in Sept.)

A. Training Programs:

1. Effective Buffers Associated with Development for Natural Resource and Wetland Protection
2. Habitat Conservation, Land Use & Transportation Planning In "Black Bear Country"
3. Watershed Assessment and Planning and Stormwater Practices with the Center for Watershed Protection The first day focused on Watershed Assessment and Planning, the second day was Stormwater Practices, and an additional half-day was "Train the trainer" for Florida's CTP coordinators and FCMP staff.
4. Community Growth Readiness with the Southeast Watershed Forum – review of 22 low impact principles and local communities codes and ordinances
5. Wetland Restoration and Mitigation
6. Minimizing Recreation Impacts in Coastal Areas with the Leave No Trace
7. Center for Outdoor Ethics' Traveling Trainers
8. Stormwater, Erosion and Sediment Control Training and Site Inspector Certification
9. Northwest District Aquatic Preserve Training and Coordination NEMO Scoping Workshop
10. Gulf of Mexico Alliance Regional Community Meeting
11. Firewise Community Leader Workshop and Homeowners workshop
12. Managing Impacts from Small Docks and Piers
13. Seminar on Red Tide: Ecology, Impacts and Response . Presentations relating to red tide blooms in Northwest Florida, ecology and biology, health effects and social/economic issues were given by eminent researchers and health professionals. The Red Tide Seminar attracted researchers from North Carolina, a NOAA fellow and Florida State University graduate student, as well as health department staff from several counties. The presentations were posted on the DOH - Environmental Health Program's webpage. Possible future actions may include discussions and/or surveys to determine education, public information and notification procedures needs of health officials, tourists and residents relating to red tide.
14. Florida Master Naturalist Program's Coastal Systems, Upland Habitats and Freshwater Wetlands courses

B. Technical assistance and networking, including the NEMO (Nonpoint Education for Municipal Officials) Network for North Florida NEMO is an educational program for land use decision makers addressing the relationship between land use and natural resource protection, with a focus on water resources.

1. Participated on the Apalachicola Florida Waterfronts Partnership Committee and the environmental sub-committee. Provided technical assistance regarding stormwater to partners and consultants for the Scipio Creek Improvements Feasibility Study, Cities of Apalachicola and Carrabelle Master Stormwater Plans and other issues.
2. Gave Stormwater Presentation to Gulf County Planning Board in August, 2005 and gave NEMO presentations at the Florida Waterfronts Program Managers meeting on February 7, 2006, NW District Aquatic Preserve and Permitting Coordination meeting January 30, 2006, the North Florida NEMO Network meeting in January, and Stormwater, Erosion and Sediment Control Training workshop in June. Gave NEMO presentations at the Carrabelle City Commission public meeting for updating the land use element of their comprehensive plan in November 2005.

3. Provided technical assistance and materials regarding stormwater to consultants for the Eastpoint Planning Charrette.
4. Met with NW Aquatic Preserves Manager and DEP NW District Watershed Coordinators regarding water quality and stormwater issues. Provided technical assistance, NEMO information and other materials.
5. Provided information and CDs on stream restoration and living shorelines to USFWS North Florida Coastal Program.
6. Provided information and technical assistance to Apalachicola Planning and Zoning Board regarding invasive plants and tree ordinance development.
7. CTP coordinator is continuing to provide input to Apalachicola Planning and Zoning on local tree ordinance development and invasive species. Stormwater and community development issues are ongoing through the Apalachicola Waterfronts Partnership and North Florida NEMO Network.
8. Guest lectures - Black Bears, Shark Awareness, Regional Archaeology, Astronomy, and others

Rookery Bay CTP workshops

Title of Training Event	Event Start	NERRS Priority Issues	Desired Outcome	Topic
Landscaper BMP Training for Water Quality	03/07/06	Non-point source pollution, eutrophication & nutrient dynamics	Reduction of nutrient inputs into estuary	Water Quality Issues
Landscaper BMP Training for Water Quality	03/07/06	Non-point source pollution, eutrophication & nutrient dynamics	Reduction of nutrient inputs into estuary	Water Quality Issues
Leave No Trace – National Outdoor Ethics	03/23/06	Non-point source pollution, eutrophication & nutrient dynamics	Reduction of nutrient inputs into estuary	Visitor Use Issues
Marine Mammal Stranding Verification	04/27/06	Biodiversity		Wildlife Management
Go with the Flow: A watershed science and Policy workshop	03/24/06 4/21/06 5/19/06	Habitat Conservation & Restoration	Revise Land Use planning procedures	Watershed Management
SMART Training – Hurricane Response Training	5/25/06	Sustaining Estuarine Systems	Reduction of nutrient inputs into estuary	Wildlife Management
Coastal Considerations for Professionals	6/9/06	Sustaining Estuarine Systems	Reduction of nutrient inputs into estuary	Watershed Management
Ecotour Operator Series - Lee County/ Collier County – Ecotourism and Ethnobotany	6/13/06 6/15/06	Sustaining Estuarine Systems	Reduction of nutrient inputs into estuary	Visitor Use Issues
Gulf of Mexico Alliance Education and Outreach Meeting	6/21/06	Sustaining Estuarine Systems		
Ecotour Operator Series - Lee County/ Collier County – Mangrove Science	7/11/06 7/20/06	Sustaining Estuarine Systems	Reduction of nutrient inputs into estuary	Visitor Use Issues
Ecotour Operator Series - Lee County/Collier County – The Everglades	8/8/06 8/17/06	Sustaining Estuarine Systems	Reduction of nutrient inputs into estuary	Visitor Use Issues

PUBLIC OFFICIALS

Florida Local Environmental Resource Agencies (FLERA)

<http://www.flera.org/conference.html>

Issues on 2000 FLERA Annual Conference Business Meeting

<http://www.flera.org/pdf/2000.FLERA.brochure.draft2.pdf>

Environmental Trends in Legislation

Water supply

Water quality

Mercury controls

Environmental Restoration

Controversial Facility siting

Land Acquisition

Innovative Environmental Compliance Methods

Issues on 2004 FLERA Annual Meeting ----- Jupiter Beach Resort Directions

http://www.flera.org/pdf/04_Conference_Announcement_with_Speakers.pdf

Wildlife Management

Air Management

Legislative Affairs

Waters of the state

Conservation land acquisition and management

Florida's Mercury Study

Wildlife passage structures

Waste Management Issues

Ecosystem Restoration

Lurking Disaster

Issues on 2006 Annual Conference

<http://www.flera.org/pdf/06%20AC%20Brochure.pdf>

Headwaters Hydrological Restoration

Sea grass and mangrove creations

Land Conservation

Development of Impaired Waters

Ground water

Hurricane Impacts

Red tide

Hurricane Impacts and Environmental Restoration

Florida Chamber of Commerce Environmental Short Courses:
(<http://www.floridaenet.com/pdfs/2006summerschool.pdf>)

Environmental permitting and enforcement update

Introduction to environmental resource permitting

- Wetland impacts
- Storm water treatment
- Management and storage of surface waters

Environmental due diligence in land transactions

Innovative Environmental design and management

Navigating NEPA

- Basic overview of National environmental policy act process
- Cover NEPA planning and documentation, facilitation of NEPA process

Peace river basin as growth and watershed management ‘laboratory’

- Combined regulatory and programmatic solution to over-allocation of the Upper Florida Aquifer System.
- Resource management

Coastal High Hazard Study Commission

ERP ‘problem solving’

- ‘Show stopper’ issues, which can result in permit denial or moths delay

Determining Federal And State Wetland Jurisdiction

The essentials of federal wetlands permitting

Science based solutions to permitting and mitigating in the coastal marine environment

Special permit considerations for sovereign lands, aquatic preserves, outstanding Florida waters

Coastal construction permitting

New ground-breaking federal mitigation regulations

Florida’s uniform mitigation assessment methodology: the basics and beyond

Practical considerations in environmental mitigation

Mitigation and conservation banking

New developments in water quality

Total maximum daily loads, classification of waters and development of numeric nutrient criteria

Use of wetlands for stormwater and wastewater treatment

Florida NPDES update

- Update on procedural and substantive considerations in permitting under NPDES program including stormwater;
- New regulatory developments;
- Program administration; case law update;
- Enforcement and citizen suits;
- Additional compliance considerations;
- How to interpret complex regulations.

Watershed Management

Storm water BMPs: selection, design and permitting

Who controls water use?

- Florida water law assigns Florida’s water management districts the exclusive authority to issue permits for the consumptive use of water.

Florida Association of Counties
(<http://www.fl-counties.com/fac%20workshops.htm>)

The information about the conferences and workshops are not available now.

Seminar 1: Leadership Skills for Change Agents in Florida's Growth Environment August 23-24, 2006;

Seminar 3: Understanding and Working with Growth Stakeholders & County Deal Makers in Florida's Growth Environment Date: May 10-11, 2007

City of Jacksonville

08/08/06 Commission Agenda Topics Potentially Related to Coastal Environments
<http://citycirc.coj.net/coj/Council/70-AUGUST-8-2006.htm>

- **Rezoning** Propty E/S Yellow Bluff Rd, N of New Berlin Rd (32.38 Acres) - PUD to PUD
- **Rezoning** Propty W/S Hood Rd, S of Sunbeam Rd (5.85± Acres) - PUD to PUD
- **Rezoning** Propty W/S Hood Rd, S of Sunbeam Rd (5.85± Acres) - PUD to PUD
- **Rezoning** 204 New Berlin Rd (0.20± Acres) - CO to CN
- Propty E of Biscayne Blvd, N of Shearwater Dr (21.09± Acres) - PBF-1 & RLD-G to PUD
- **Rezoning** 2841 Moncrief Rd (0.09± Acres) - RMD-A to RMD-B
- Apv **Dev Agreemt** with Gerdau Ameristeel US, Inc for "Ameristeel" (CCAS# 40526) for 200,000 sq ft Industrial Use on 600± Acres
- Tree Protection Trust Fund for Assistance to **Greenscape** for Herschel St **Reforestation** Proj
- Auth Execution of Sovereignty **Submerged Lands Leaset** Enclosed
- assignmt, amendmt & restatemt to **Wood & Yard Waste Mulching Operation** Contract
- Approp \$234,200 from **Parks/Rec Capital Projs** (F5790) - Losco Regional Pk Fund for Bulkhead Repairs at LaSalle St & St Johns River
- **Rezoning** 601 E Adams St (7.30 Acres) - PUD to CRO
- **Rezoning** 6500 Bowden Rd (7.53± Acres) - IBP-2 to PUD
- **Rezoning** 1901-1954 Redell St (1.44± Acres) - RMD-S to PUD
- **Rezoning** 12250 Old St Augustine Rd (12.22± Acres) - RR to PUD
- **Rezoning** 3176 Armsdale Rd (5.04± Acres) - CCG-1 to PUD
- **Rezoning** 5618 Doeboy St (0.24± Acre) - RMD-C to RMD-A
- **Rezoning** Propty at Intersec of Philips Hwy & Freedom Corners Crossing Trail (4.50± Acres) - PUD to CCG-1
- **Rezoning** Propty on Duval Rd bet Owens Rd & Airport Center Dr (63.91± Acres) - PUD to CCG-2
- **Rezoning** Propty on Duval Rd bet Owens Rd & Airport Center Dr (63.91± Acres) - PUD to CCG-2
- **Rezoning** Propty at SW Intersec of Atlantic Blvd & Intracoastal Waterway (5.31± Acres) - PUD to PUD

- Approp \$300,000 from WSEA Spec Council **Rsv Acct for Sewer Connection Costs for Homeowners**
- Approp \$400,000 from JEDC Fund Balance for the **Growth Mgmt Task Force's Vision Plans**
- Reinstating Agreemt with Mayport Waterfront, Inc to implement the "**Waterfronts Fla Prog**" for **Economic Revitalization** of Mayport, Ft George & Fanning Islands
- Adopt Small Scale Amend to FLUM Series - Appl# 2005C-047 - 500 Bishop Gate Ln (Approx 1.34 Acres) - RPI to HDR
- Adopt **Small Scale Amend to FLUM Series** - Appl# 2005C-036 - SE Corner of N Main St & Bird Rd (0.88± Acre) LDR to CGC
- **Small Scale Amend to FLUM Series** - Appl# 2006C-002 - 38 & 110 Brookview Dr (2.86 Acres) - MDR to CGC
- Auth Agreemt with Amelia Island **Mosquito Control** Dist of Nassau County
- **Rezoning** 5507 Moncrief Rd (0.24± Acres) - CCG-1 to PUD
- **Rezoning** 4016 Julington Creek Rd (8.11± Acres) - RLD-D to PUD
- ORD Approp \$48,000 from WSEA Loan Pool for proposed **Water & Sewer Proj** at D&W Electric, 2601 Picketville Rd. (06-248)

07/25/06

<http://citycirc.coj.net/coj/Council/72-JULY-25-2006.htm>

- Many **rezoning** cases
- Some **FLUM amendments**
- Several Approp from Tree Mitigation Fund for **Tree Planting & Landscaping**
- Several **Apv Fair Share Assessmt Contract** with Southerland Group, Inc
- Several **Apv Dev Agreemt** with Winn Dixie Stores
- Declaring Necessity for **Aquiring a Drainage Easemt thru Eminent Domain** Process
- Expenditures, \$199,675.20 from **Park Beautification & Landscaping**
- Auth Execution of **Sovereignty Submerged Lands Lease**
- ORD Approp \$234,200 from Parks/Rec Capital Projs (F5790) - Losco Regional Pk Fund for **Bulkhead Repairs** at LaSalle St & St Johns River; Req Public Works to oversee Proj.
- RESO Appt Kimberly Flower as Member of **Parks, Rec, Entertainmt & Conservation Adv Bd** for 1st Full Term exp 6/30/09, Representing Planning Dists 1 & 2 & the Beaches.

06/27/06

<http://citycirc.coj.net/coj/Council/74-JUNE-27-2006.htm>

Similar to above

- ORD-Q **Rezoning** on Starrat Rd bet Futch Rd & New Berlin Rd (0.22± Acre) - CN to CCG-1 - New Berlin Signature LLP. (Dist 11-Alvarez) (Eller)
- ORD **Closing & Abandoning Portion of a 35' Open Ditch Drainage Easemt** bet Powers Ave & F.E.C. R/R, S of Toledo Rd, at Req of A.C. Skinner.
- RESO Conf Reappt of Christopher D Flagg, RLA, ASLA, as a **Landscape Architect Rep to Downtown Design Review Comm** for 1st Full Term

05/09/06

<http://citycirc.coj.net/coj/Council/79-MAY-09-2006.htm>

- AN ORDINANCE **REZONING** APPROXIMATELY 358 ACRES OF LAND LOCATED IN COUNCIL DISTRICT 11 ON THE EAST AND WEST SIDES OF SAWPIT ROAD ON BLACK HAMMOCK ISLAND BETWEEN CEDAR POINT ROAD AND NASSAU RIVER AND OWNED BY GEORGE L. OGILVIE AND JEANETTE OGILVIE, AS MORE PARTICULARLY DESCRIBED HEREIN, FROM AGRICULTURE (AGR) DISTRICT TO PLANNED UNIT DEVELOPMENT (PUD) DISTRICT, AS DEFINED AND CLASSIFIED UNDER THE ZONING CODE, TO PERMIT SINGLE-FAMILY RESIDENTIAL USES, AS DESCRIBED IN THE APPLICATION FOR THE **BLACK HAMMOCK ISLAND PUD**, PURSUANT TO ADOPTED FUTURE LAND USE MAP SERIES (FLUMS) SEMI-ANNUAL LAND USE AMENDMENT APPLICATION NUMBER 2005D-005; PROVIDING AN EFFECTIVE DATE

04/11/06

<http://citycirc.coj.net/coj/Council/85-April-11-2006.htm>

Similar to above

- ORD re **Landscape & Tree Protection**; Amend Sec 656.1206(h), Ord Code, Regarding Minimum Size of Certain Land Donations to City as **Mitigation in lieu of Monetary Contributions to the Tree Protection & Related Expenses Trust Fund**.
- ORD-Q **Rezoning** 10899 Baymeadows Rd (15.48± Acres) - PUD to PUD (Point Meadows West Amendment: Modify Signage Provisions) - Skinner's Wholesale Nursery, Inc/Yair II, LLC. (Dist 13-Graham) (Eller) (LUZ)

03/14/06

<http://citycirc.coj.net/coj/Council/89-MARCH-14-2006.htm>

- ORD-Q **Rezoning** Approx 0.46± Acres located at 349 & 1033 Dutton Island Rd W, (RE #'s 169489-0000 & 169489-0500) as described herein, owned by Rashelle A. Rogers & Brenda Edge, from RMD-A to RMD-B, as defined & classified under the zoning code.
- ORD **Closing & Abandoning a portion of certain 40 ft right of way for drainage & utilities** shown on the plat of Fort Caroline Club Estates Unit 10, Plat Book 32, Pgs 56 & 56A of the Current Public Records of Duval County, Fla, at the request of Bobby Thompson & Cheryl Thompson, for the purpose of clearing title to the propty.

02/14/06

<http://citycirc.coj.net/coj/Council/94-FEBRUARY-14-2006.htm>

Similar to above

01/10/06

<http://citycirc.coj.net/coj/Council/98-JANUARY-10-2006.htm>

Similar to above

- ORD Auth the Mayor to Execute a **Stormwater Mgmt Facility Reimbursemt & Mgmt Agreemt** bet Chimney Lakes Investmt Co, City of Jax & Watermill Owners Assn for Reimbursemt by the City of \$510,274.00 for its share of the cost of constrn of a Stormwater Mgmt Facility needed for certain roadway proj;

12/13/05

<http://citycirc.coj.net/coj/Council/99-DECEMBER-13-2005.AGENDA.htm>

Similar to above

- RESO Declaring Pub Necessity for Acquire **Temp Constrn Easemt rights thru Condemnation by Right of Eminent Domain in certain lands for Sherwood Forest Drainage Proj;**
- ORD Apv the **Purchase of certain parcel described herein from Heritage Dev Enterprises, Inc. for \$290,000 for Stormwater Drainage Pond;** Auth the Mayor to execute all closing documents, & otherwise take all necessary action to effectuate the purchase of the Real Propty.

Duval County Commission Agendas

Key Words

Rezonings - many
 Small Scale Amend to FLUM - several
 Development Agreements - several
 Growth Mgmt Task Force's Vision Plans
 "Waterfronts Florida Program" for Economic Revitalization in Mayport
 Parks/Recreation Capital Projects
 Tree Planting & Landscaping projects - several
 Mitigation in lieu of Monetary Contributions to the Tree Protection & Related Expenses Park
 Beautification & Landscaping project
 Parks, Recreation, Entertainment & Conservation Advisory Board
 Greenscape project
 Reforestation
 Trust Fund Submerged Lands Lease - several
 Wood & Yard Waste Mulching Operation
 Approval of Fair Share Assessment Contracts
 Mosquito Control
 Bulkhead Repairs
 Water & Sewer Projects funding
 Reserve Account for Sewer Connection Costs for Homeowners
 Acquiring a Drainage Easement thru Eminent Domain
 Closing & Abandoning Portion of a 35' Open Ditch Drainage Easement
 Closing & Abandoning a portion of certain 40 ft right of way for drainage & utilities
 Stormwater Mgmt Facility Reimbursement & Management Agreement
 Temporary Construction Easement thru Eminent Domain for a Drainage Project
 Purchase of certain parcels for Stormwater Drainage Pond

Collier County Board Agendas

July 25, 2006

<http://www.colliergov.net/bcc/pdf/agendas/complete/07-25-06/coversheet.pdf>

Fish and Wildlife Service **Derelict Vessel Removal Grant**

Approve the Florida Boating Improvement Program for the **Removal of derelict vessels** in Collier County.

Approve a resolution of the Board of County Commissioners of Collier County, Florida, directing the county manager to establish a **Floodplain Management Planning Committee**.

Waive the competitive bid process to award a contract to Mote Marine Laboratory for gathering **manatee and boating activity data**.

Terminate a contract with the Florida Fish and Wildlife Conservation Commission (FWCC) that allowed Collier County to **maintain FWCC waterway signs** and approve all necessary Budget Amendments.

Installation and landscape maintenance agreement between Port and the Islands

Fish Branch Basin Box Culvert Extension Project Site.

Immokalee **Water and Sewer Districts**.

Award Collier County **Highway Scenic Enhancement at Port of the Islands landscape and irrigation installation**.

Approve Project Agreement Amendments with the **Natural Resources Conservation Service in Support of Hurricane Wilma Recovery Efforts** in Collier County.

June 20, 2006

<http://www.colliergov.net/bcc/pdf/agendas/complete/06-20-06/coversheet.pdf>

Sale and Purchase under the **Conservation Collier Land Acquisition Program**.

Conservation Collier Land Acquisition Program

Professional engineering services related to the well site evaluation and transmission main study for future water supply to South East Regional Water Treatment Plant.

Artificial Reef Recycling Construction and Demolition Waste

Hurricane Season debris removal and monitoring contractors for operational readiness.

June 6, 2006

<http://www.colliergov.net/bcc/pdf/agendas/complete/06-06-06/coversheet.pdf>

Recommendation that the Board of County Commissioners adopt the 2005 Collier County **Water and Wastewater Master Plan Updates**.

Recommendation to approve Change Orders to Greeley and Hansen LLC Work Orders under Fixed Term Contract, Fixed Term Professional Utility Engineering Services, for the 2005 Utilities **Wastewater Master Plan Update** and the 2005 Utilities Wastewater Master Plan Update and Appropriate Budget Amendments.

May 23, 2006

<http://www.colliergov.net/bcc/pdf/agendas/complete/05-23-06/coversheet.pdf>

Recommendation to approval final acceptance of the **Water and sewer** utility facility for Delasol.

Recommendation to approve an Agreement for **Sale and Purchase under Land Acquisition Program**

Recommendation that the Board review and approve a status report for the **restoration of lake to improve stormwater management for the surrounding properties** and approve a budget amendment increase.

Recommendation to authorize the submittal of Alternative Water Supply grant applications to the South Florida Water Management District for each project in Public Utilities Engineering Divisions Construction Capital **Alternative Water Supply Program**.

Monitoring for **Disaster Debris Management and Technical Assistance**

May9, 2006

<http://www.colliergov.net/bcc/pdf/agendas/complete/05-09-06/coversheet.pdf>

Receive and approve the Progress Report for the Year 2005, Collier County **Floodplain Management Plan, the Collier County Hazard Mitigation Plan**.

Recommendation to adopt a resolution authorizing the fee simple and easement acquisition of property by **condemnation for the purpose of constructing stormwater improvements to alleviate flooding**.

Approve an Amendment of the **FEMA Floodplain Mapping Study Interlocal Agreement** with the City of Naples to provide funding for additional services requested by the Federal Emergency Management Agency.

Recommendation to award for landscape installation.

Recommendation to approve a Budget Amendment to provide Professional Services for the West Eustis Ave. **Stormwater Improvements.**

Surface water monitoring

Fixed Term Professional Engineering Services for **Coastal Zone Management Projects.**

April 25, 2006

<http://www.colliergov.net/bcc/pdf/agendas/complete/04-25-06/coversheet.pdf>

Recommendation that the Board of County Commissioners approve the award in support of the **stormwater drainage component of City of Naples' Solana/Burning Tree Drive improvements.**

Recommendation to approve an agreement for sale and purchase under **Conservation Collier Land Acquisition program.**

Recommendation to approve, execute and record Satisfactions for certain **Water and/or Sewer Impact Fee Payment Agreements.**

Recommendation to approve second contract for the standardization of **bio-filter odor control units** with US Filter Wastewater Group, Inc.

Mar 23, 2006

<http://www.colliergov.net/bcc/pdf/agendas/complete/03-28-06/coversheet.pdf>

Proclamation designation **April as being Water Conservation Month.**

Granted an after-the-fact variance for a 5.3-foot **encroachment into the required 10 foot rear yard setback, on a waterfront lot** at 175 Bayview Avenue.

Recommendation to adopt a superseding resolution authorizing condemnation of fee simple interests for the proposed right-of-way and **stormwater retention and treatment pond sites, as well as perpetual, non-exclusive road right-of way, drainage and utility easements,** temporary construction easements and temporary driveway restoration easements, which will be required for the construction of roadway, drainage and utility improvements to Santa Barbara Boulevard from Davis Boulevard to Pine Ridge Road.

Feb 28, 2006

<http://www.colliergov.net/bcc/pdf/agendas/complete/02-28-06/coversheet.pdf>

Recommendation to approve budget amendments for Pelican Bay **Resurfacing, Limerock Conversion and other Landscape Projects.**

Conservation Collier Land Acquisition Program.

Perform a professional engineering study for a **wastewater treatment capacity analysis.**

Water Savings Incentive Program

Recommendation to approve a budget amendment recognizing a developer contribution toward the Vanderbilt Beach Access #8 Project.

Jan 24, 2006

<http://www.colliergov.net/bcc/pdf/agendas/complete/01-24-06/coversheet.pdf>

Proclamation recognizing South Florida Water Management District for their efforts to **preserve and protect our water resources.** To be accepted by Clarence Tears, Director, Big Cypress Basin.

Recommendation to grant final approval of the roadway (private) and drainage improvements for the final plat of Indigo Lakes Unit Five. The **roadway and drainage improvements** will be privately maintained.

Recommendation to approve an Agreement for Sale and Purchase with Luis Santos, Jr., and Maria Leonor Santos for 5.7 acres under the Conservation Collier **Land Acquisition Program**, at a cost not to exceed \$194,750.

Recommendation to award Bid #06-3927 Goodlette Frank Road (Pine Ridge Road to Vanderbilt Beach **Road**) **Landscape Maintenance Annual Contract** to Advanced Lawn and Landscaping Services, Inc.

Dec 13, 2005

<http://www.colliergov.net/bcc/pdf/agendas/complete/12-13-05/coversheet.pdf>

Recommendation for the Board to consider receiving **delegation of Boat Dock Permitting** from the U.S. Army Corps of Engineers (USACE)

Recommendation to approve final **acceptance of water and sewer utility facilities**

Recommendation to approve Change Order No. 4 to Contract No. #05-3812 Goodlette-Frank Road (PRR-VBR) **Landscape Improvements Construction** with Hannula Landscaping, Inc.

State Revolving Funds Loan Procurement Services from The Florida Department of Environmental Protection for the South County Regional **Water Treatment Plant 12 Million Gallons per Day Reverse Osmosis Expansion**;

Recommendation to approve the South Florida Water Management District Local Governmental Agreement No. OT060134 in the amount of \$987,679 as partial funding for construction of the South County Regional Water Treatment Plant 20-MGD **Wellfield Expansion, Project Number 708921**.

Recommendation to approve a budget amendment segregating funds collected for **Beach Access/Beach Park Facilities** from funds collected for **Beach Renourishment/Pass Maintenance Activities**.

Nov 15, 2005

<http://www.colliergov.net/bcc/pdf/agendas/complete/11-15-05/coversheet.pdf>

Recommendation to approve a budget amendment for the transfer of funds from the Collier County Water-Sewer District Operating Fund (408) Reserve for Contingencies, and other sources of Revenue in the total amount of \$2,000,000 to cover unanticipated Hurricane Wilma related operating expenses in the North County **Water Reclamation Facility and Wastewater Collections Cost Centers**.

Recommendation to approve an amendment to Contract 04-3673 with Carollo Engineers in an amount of \$1,144,432.00 to provide professional engineering services for design of the Northeast Regional **Water Treatment Plant and Water Reclamation Facility**

Recommendation to award bid #05-3873 Golden Gate Parkway Grade Separated Overpass **Landscape Installation** to Hannula Landscaping Inc.

Oct.11, 2005

<http://www.colliergov.net/bcc/pdf/agendas/complete/10-11-05/coversheet.pdf>

Public Petition request by Robert Pritt to discuss **dock permitting requirements for seawalls, riprap and boat docks**.

Recommendation to approve final acceptance of **water and sewer utility facilities**

Recommendation to authorize the Chairman to sign the **Submerged Land Aquaculture Lease** from the State of Florida for two 2-acre plots for aquaculture research with Florida Gulf Coast University.

Sep. 13, 2005

<http://www.colliergov.net/bcc/pdf/agendas/complete/09-13-05/coversheet.pdf>

Appointment of member to the **Land Acquisition Advisory Committee**.

Recommendation to assess the overall effectiveness and community value of the Environmental Advisory Council (EAC) and provide direction with regards to attendance, **functions and future role as the Countys environmental advisory board.**

Recommendation to approve final acceptance of **water utility facilities** for Whipporwill Lane Road Improvements.

Recommendation to grant final approval of the roadway (private) and drainage improvements for the final plat of Islandwalk Phase Six. The **roadway and drainage improvements** will be privately maintained

Recommendation to grant final approval of the roadway (private) and drainage improvements for the final plat of Mallards Landing at Fiddlers Creek. The **roadway and drainage improvements** will be privately maintained.

Collier County Commission Agenda

Key Words

Water and sewer facilities ///

Water and Wastewater Master Plan Updates //

Wastewater treatment capacity analysis

Alternative Water Supply Program

Water Treatment Plant and Water Reclamation Facility Wellfield Expansion, Project

Water Treatment Plant Reverse Osmosis Expansion

Preserve and protect our water resources

April as being Water Conservation Month

Bio-filter odor control units

Water Reclamation Facility and Wastewater Collections Cost Centers Water and sewer ///

Derelict vessel removal //

Manatee and boating activity data

Maintain FWCC waterway signs

Installation and landscape maintenance agreement ////

Highway Scenic Enhancement at Port of the Islands landscape and irrigation installation

Conservation Collier Land Acquisition Program //// //

Natural Resources Conservation Service in Support of Hurricane Wilma Recovery Efforts

Hurricane Season debris removal and monitoring contractors for operational readiness.

Disaster Debris Management and Technical Assistance Artificial Reef Recycling Construction and Demolition Waste

Floodplain Management Plan, the Collier County Hazard Mitigation Plan

Stormwater Improvements

Restoration of lake to improve stormwater management for the surrounding properties

Stormwater drainage component of City of Naples' Solana/Burning Tree Drive improvements

Fish Branch Basin Box Culvert Extension Project Site

Resurfacing, Limerock Conversion and other Landscape Projects.
Stormwater retention and treatment pond sites
Condemnation for the purpose of constructing stormwater improvements to alleviate flooding
FEMA Floodplain Mapping Study Interlocal Agreement
Floodplain Management Planning Committee
Surface water monitoring
Coastal Zone Management Projects
Encroachment into the required 10 foot rear yard setback, on a waterfront lot
Delegation of Boat Dock Permitting
Dock permitting requirements for seawalls, riprap and boat docks
Beach Access/Beach Park Facilities
Beach Renourishment/Pass Maintenance Activities
Submerged Land Aquaculture Lease
Functions and future role as the Countys environmental advisory board.

Franklin County Commission Agendas and Key Words
<http://www.franklincountyflorida.com/>

07/18/06

Discussed removal of boat in East point that came ashore during Hurricane Dennis.

Discussed 'derelict' boat at the City of Apalachicola's dock;

Update on Tilefish Fishery, discussed the oyster season in Chesapeake Bay and the next Seafood Industry Taskforce Meeting date;
discussed using TDC funds to purchase property for a boat ramp;

07/05/06

Bill Mahan - County Extension Director

Reviewed his report discussing a red tide workshop date, a fishery update, and new rules about measuring the total length of saltwater fish, and draft letters of support for new red tide testing methods.

Ms Belcher discussed CDBG grants; recommended East point as the primary project to submit and Lanark Water and Sewer as the secondary project for submittal;

Inform Board that the Legislature provided two funding sources for the Alligator Point Beach re-nourishment project.

Inform the Board that the consultant for GSG, Government Services Group, Ms. Camille Tharpe, who discussed providing a funding analysis for the Alligator Point Beach Renourishment project has submitted a proposal.

Inform Board that APTA took a poll of its members at a June meeting and the APTA executive meeting recommends the county commission move forward with Option #4 for beach renourishment.

Barbara Rohrs, of Lanark Water and Sewer Board, commented on the CDBG grant, and maintenance issues some of which are DEP concerns at Lanark Water and Sewer;

06/20/06

Board reminded Mr. Mahan to send a letter to all agencies, state and federal that applies, requesting a new “Red Tide” test for Franklin County.

Turtle Lighting- The Board has been supportive of the protection of nesting sea turtles through the adoption of an Ordinance in 1998 regulating lighting on Gulf of Mexico beaches.

Approve request from Lee Benoit, representing Daniel and Sharen Lawrence to construct an open deck 12 feet into the Critical Habitat Zone on Lots 68 and 69, Block C, Unit 3, St. James Island Park.

Approve request for a variance to construct a boardwalk and observation platform within the Critical Habitat Zone and Special Exception to cluster four lots on 4.05 acres as requested by Garlick Environmental Associates, Inc.

Dick Waters, VP of APTA, discussed the options available for the beach re-nourishment project on Alligator Point and recommended Option 4. Distributed a packet of information to the Commissioners

06/06/06

Board discussed and it was stated that the Sheriff Dept, Road Dept, and Landfill would all utilize the maintenance facility. There was discussion regarding the actual savings that would be recognized by building this maintenance facility.

Bill Mahan - County Extension Director

Updates on 4H Tropicana Public Speaking Program, County’s 4-H Summer Camp, Red Tide Seminar, Apalachicola Watershed Invasions Working Group Meeting, Larra Wasps and Mole Cricket Control, and FL HB 7175/SB 2128.

Board directed Mr. Mahan to have one of the agencies at a future meeting to explain the current Red Tide Test.

Board discussed moving 'derelict' boat at the City Dock.

Van Johnson - Solid Waste Director

Discussed the FDEP Application for Recovered Materials Certification and Reporting Form, the Consolidated Solid Waste Management Grant Program Application, the Taser Use Policy for the Franklin County Animal Control Officers, and the use of Sperry and Associates to construct the new maintenance shop.

Board discussed and it was stated that the Sheriff Dept, Road Dept, and Landfill would all utilize the maintenance facility. There was discussion regarding the actual savings that would be recognized by building this maintenance facility.

Camile Tharpe - MSBU & MSTU

Mr. Pierce made some introductory comments; **Ms. Tharpe** discussed MSTUs, MSBUs, CRAs, and TIFs;

Board discussed these items as it relates to a beach re-nourishment project on Alligator Point

John Richards - Seafood Workers Association - Mechanical Harvesting

Linda Raffield, spoke on behalf of the Seafood Workers Association, discussing the issue of dredging in Apalachicola Bay and stated that the Association does not support dredging of the Bay at anytime and in any form

Inform Board that the National Association of Counties (NACo) has awarded Franklin County and STAR- Sea Turtles At Risk, a \$28,350 grant for the restoration of sea turtle nesting habitat on St. George Island. STAR will administer the money, and the county will provide in-kind labor for the building of some dune walkovers. The county was eligible for the funds because of its membership in NACo. This was a national grant program, and only one other county in Florida received a grant.

Provide Board with copy of letter to Mr. Steve Harris, St. George Island Civic Club president, supporting a second grant for additional dune restoration on St. George Island.

Clarification of grant award. For the past several months the county and the Northwest Florida Water Management District have been working on two sets of draft grant documents. One was for stormwater improvements in Eastpoint, and the other for stormwater improvements on Sawyer Street on St. George Island. Both of these were the results of grants written by the county. On May 16, 2006, I recommended the Board sign an agreement between the Northwest Florida Water Management District and the county for the installation of stormwater treatment facilities in Eastpoint. The documents the District actually sent down were for stormwater improvements on Sawyer Street on St. George Island. I need to have the record corrected to indicate that on May 16, 2006, the Board signed a grant agreement between the District and the county for \$366,000 grant for stormwater improvements and shoreline stabilization on Sawyer Street.

Provide Board with copy of grant application to the Florida Fish and Wildlife for the construction of the St. George Island Boat Ramp. The grant request is for \$877,000, which is approximately ¼ of all the FWC boat money state-wide for boat ramps, so it will be very competitive if we get the full funding.

12/20/05

Bill Mahan: Discussed fisherman regulations. Red Grouper bag limit update. FWC press release regarding new measurements for fish. New Extension Office official, from Ireland, to visit Franklin County in February or March.

Planning & Zoning Commission Report

Item 1- (Without Recommendation) Michael Conn to construct a Single Family Dock modification at 217 Harbor Circle, Alligator Point, Franklin County, Florida. The modification will be 102' x 4' walkway and have a 20' x 8' platform and have 20' x 12' boatlift. This application meets all state and local requirements. Request submitted by GEA, Inc, agent for the applicant.

Item 2- (Without Recommendation) John Moody to construct a Single Family Dock modification on Lot 4 Oyster Bay Village, 2227 Coquina Drive, St. George Island, Franklin County, Florida. The modification will be 150' x 4' walkway and have a 26' x 6' platform and 10' x 20' boatlift. This application meets all state and local requirements. Request submitted by GEA, Inc, agent for applicant.

Item 3- (Without Recommendation) Eric Detry to construct a Single Family Dock on Lot 69 Magnolia Shores, 345 East Bay Drive, Eastpoint, Franklin County, Florida. The dock will be 300' x 4' walkway, 26' x 6' terminus, and a 128' x 12' bridge over wetlands and two 10' x 20' boatlifts. This application meets all state and local requirements. Request submitted by GEA, Inc, agent for applicant.

Item 4- (Without Recommendation) Larry Giunpero to construct a Single Family Private Dock on Lot 40, Unit 1, 2318 Highway 98, Lanark Village, Franklin County, Florida. The dock will be 230' x 4' walkway and have a 12' x 6' platform. This application meets all state and local requirements. Request submitted by Docks 4 Less, agent for applicant.

Item 5- (Without Recommendation) Wanda Barfield to construct a Single Family Private Dock at 2232 Highway 98 East, Lanark, Franklin County, Florida. The Dock will be 210' x 4' walkway with a 16' x 10' platform. This application meets all state and local requirements. Request submitted by Docks 4 Less, agent for applicant.

Item 6- (Without Recommendation) Consideration of a request for Final Plat approval for "Tucker's Landing PUD" located in Section 28, Township 8 South, Range 8 West, Apalachicola, Franklin County, Florida. Request submitted by Jim Waddell of Inovia Consulting, agent for applicant.

Motion by Mosconis, seconded by Crofton, to approve Items 1- 6 on the Planning and Zoning Report. Motion carried 5-0.

Board of Adjustment Report

Item 1- Approve a request for a variance to construct a seawall within the Critical Habitat Zone on property described as Lot 9, Hidden Beaches Subdivision, Carrabelle, Franklin County Florida as requested by Garlick Environmental Associates, Inc., agent for Donald & Audrey Schmidt, owners.

Item 2- Approve a request for a variance to construct a single family dwelling 3 feet into the west side lot line on property describe as the east 38 feet of Lot 2, Block J, Unit 4, Perkins Beach, St. Teresa, Franklin County, Florida, as requested by Joe and Nancy Hannon, owners.

Item 3- Approve a request for a variance to relocate a single family dwelling 15 feet into the front setback line on property described as Lot 2, Block 12, Unit 1, Dog Island, Franklin County, Florida as requested by Michael S. McGarry, trustee.

Item 4- Approve a request for a variance to construct stairs five feet into the side setback line on property described as the NW ½ of Lot 18, Bay North, Franklin County, Florida as requested by Stan Brown, agent for Gerald M. & Joyce C. Bailey, owners.

Item 5- Approve a request for a variance to construct a fence within the Critical Habitat Zone on property described as Seaside Cottages Subdivision, Eastpoint, Franklin County, Florida as requested by Inovia Consulting Group, agent for Seaside Cottages, owner.

Item 6- Approve a request for a variance to construct a cantilevered deck 3 feet into the setback line off of 3rd Street East, on Lots 23-30, Block 4, Unit One East, St. George Island, Franklin County, Florida, as requested by St. George Development, Inc., owner.

Item 8- Inform Board that Northwest Florida Water Management District is recommending the county receive funding for some \$400,000 worth of stormwater improvements on Sawyer Street on St. George Island. The recommendation will go to DEP for approval, but the approval should be given shortly.

12/06/05

Item 6 - Inform the Board that the county has received a draft agreement between Northwest Florida Water Management District and the county for stormwater improvements.

Michael Morón – Franklin County SHIP Program

- Board discussed SHIP Program assistance for seafood workers affected by ‘Red Tide’ with Mr. Morón

11/01/05

Van Johnson – Solid Waste Director:

- Policy on debris removal discussed

Motion

Commissioner Lockley motioned to adopt the clarified policy governing Debris Removal. Commissioner Crofton seconded and the motion carried 5-0.

- Keep Franklin County Beautiful grant discussed
 - The Apalachicola Bay and River Keepers administering the grant discussed

Joe Shields - Department of Agriculture

- Update the Board on the “Red Tide”
 - Cell count is declining
 - Conditions still good for red tide growth
 - Satellite pix still showed evidence of red tide

Department Supervisor’s Report - Continued

Bill Mahan – County Extension Director

- Reviewed letter to Mr. Sherman Wilhelm regarding “red tide” independent testing

Department Supervisor’s Report - Continued

Bill Mahan continued his report

- Discussed independent testing for Red Tide
- Discussed Possibility of opening Bay in sections

Item 8 - Inform Board that Fish and Wildlife did approve the \$250,000 grant to improve the boat ramp and mooring facility at Battery Park. The City of Apalachicola will take the lead on project.

Item 9 - Inform Board that Mr. Paul Osterbye, owner of Carrabelle Wayside RV Park, is willing to assist the county in developing and a public fishing pier at Carrabelle Beach.

Item 14 - Inform Board that it received a response from Fish and Wildlife regarding the easement requested by Mr. Dakie Ward on behalf of DSW Holdings

10/18/05

Van Johnson continued

- Discussed fund raiser to help Franklin County residents affected by the 'red tide'
 - Nikki Barrack, of the Park and Recreation Department, discussed fund raiser with Board

Joe Shields, of the Department of Agriculture, discussed the following with the Board:

- 'Red Tide' cell counts
 - Cell count is extremely high
 - Additional 2-4 weeks is needed to open bay, after count is low
- Outside agency testing Bay for red tide cell count

Motion

Commissioner Putnal motioned to approve the budget transfer as stated by Ms. Johnson relating to Beach Cleanup Overtime on St. George Island.

Item 1 - A request for a variance to relocate an existing house landward of the Coastal Construction Control Line 22 feet into the front setback line off of Gulf

Item 2 - A request for a variance to construct a swimming pool seven feet into the Critical Habitat

Item 1 - Consideration of a request to construct a Single Family Private Dock on Lot 11, Lanark Beach Subdivision,

Alan Pierce reviewed his report with the Board

Item 1 – Board support for a Resolution requesting the United States Congress pass legislation **protecting working waterfronts**. The Resolution is in support of the Bill Senator Susan Collins, Maine, has submitted.

Item 15 – Provide Board copies of letters written to Eastpoint **Sewer and Water** regarding AWT requirements.

10/04/05

Commissioner Mosconis motioned to send a letter to the Apalachicola Estuarine National Reserve asking for their support of the boat ramp project at 8-Mile. Commissioner Lockley seconded and the motion carried 5-0.

- Board discussed encouraging the Governor's office to associate the County's "Red Tide" issues with Hurricane Katrina
- Apalachicola Watershed Invasion Exotics Working Group Meeting

Item 2 Mr. Travis Stanley would like to address the Board on support for an **easement** from the County maintained Teat Road to a parcel of land east of Teat Road.

- Travis Stanley and Ms Elva Peppers Environmental Land Services asked the Board to support their request for an easement or public access, from the Department of Fish and Wildlife Commission, to a parcel of land east of Teat Road. A map was used to further explain the location of the property.

Michael Shuler discussed the Lanark Village **Water and Sewer** Board issues with the Board.

- Updated Board on Lanark Water and Sewer issue
- Email from Brian Armstrong, Lanark Village Water and Sewer attorney, was discussed
- Special Election will be held to fill Water & Sewer Board vacancy in November
- Pauline Sullivan, of Lanark Village, discussed water quality and sewer issues in Lanark village
- Discussed what could be done if Lanark Water and Sewer does not hold elections
- Bob Millar, a Lanark Water and Sewer board member, commented on the water and sewer charges to unimproved lots in Lanark Village
- Barbara Rolle commented on the Lanark water and sewer district and asked if this special district can be dissolved and join Carrabelle water and sewer district
- Bob Millar stated that communication is the major problem between the Lanark **Water and Sewer** Board and the community and discussed the process of which the water is distributed
- Board discussed and the Carrabelle Mayor commented on merging Lanark Water and Sewer with Carrabelle **Water and Sewer**

Item 6 Give Board copy of Phase 1 Environmental Assessment of Bluff Road **Boat Ramp**.

Item 11 Board action on Resolution of support for the application to DEP for **beach erosion** funds for Alligator Point. Even though the Board voted to submit the application, the DEP wants a separate Resolution indicating the Board's support.

Item 12 Board discussion on legislative delegation issues. The Board is submitting several requests through various agency budgets: FRDAP, DEP beach **renourishment** program, Northwest Florida Forever Florida.

Franklin County Commission Agendas - Key Words

("?" Idicates the number of times the word occurred)

Red tide /////
Beach re-nourishment /////
Shoreline stabilization
Dune restoration //
Dune walkovers
Sea Turtles
Removal of boat
Derelict' boat
Purchase property for a boat ramp ///
Water access
Water access at the marine lab
Boat ramp and mooring facility at Battery Park ///
Public fishing pier at Carrabelle Beach
Single Family Dock /////
Construct a seawall within the Critical Habitat Zone
Construct a fence within the Critical Habitat Zone
Construct an open deck 12 feet into the Critical Habitat Zone
Boardwalk and observation platform within the Critical Habitat Zone
Construct a swimming pool seven feet into the Critical Habitat
Request for a rezoning of property
Tucker's Landing PUD
Coastal High Hazard area
Variance to relocate an existing house landward of the Coastal Construction Control
Response from Fish and Wildlife regarding the easement //
Seafood Industry Taskforce Meeting
Apalachicola Watershed Invasion Exotics Working Group Meeting //
Dredging in Apalachicola
Water on the roads
Standing water and mosquitoes
Water and Sewer /////
Stormwater improvements /////
2 drainage easement
Fisherman regulations. Red Grouper bag limit and new measurements
Debris Removal ///
Beach Cleanup
Protecting working waterfronts
Mosquito control, Phase I and II environmental study
Release any fresh water from the dam
Consider water availability when making any land use changes
Hazardous Waste Assessment Agreement
Water quality study of the Lanark Reef Area

Appendix D

Selections from Needs Assessments and Other Reports

Overview

This Appendix has insights and recommendations related to elected and appointed officials excerpted from past needs assessments of coastal training programs around the country and other coastal program reports. Many assessments focused on planning and environmental professionals and were not useful in this study. Key words or concepts in this Appendix were compiled and are in Appendix E. Appendix E was further synthesized into the insights in the main assessment report. These materials are provided to document the qualitative analysis process and provide a context and explanation for the resulting insights.

**An Analysis of the Apalachicola NERR
Coastal Resources Management Training Market**
by the Great Lakes Environmental Finance Center
Maxine Goodman Levin College of Urban Affairs
Cleveland State University, 2004

From the Executive Summary

There are several gaps in the coastal resources management training environment perceived by training providers, mainly identifying unmet training needs, audiences, and the need to increase attendance. There are also perceptions that there is a **need for additional information and communication on the types of organizations and programs that exist to provide training**. Specifically, these gaps were identified as a lack of knowledge as to what training is being offered and who is providing it, a **lack of interest on behalf of certain participant groups enrolling in training events (particularly local elected officials)**, the need for **more special topic workshops**, and the necessity to recruit qualified instructors to provide knowledge to participants. The providers also acknowledged the **necessity of integrating scientific training into the approaches adopted by training providers**.

Marketing Plan

2004/05-2007/08

APALACHICOLA NATIONAL ESTUARINE RESEARCH RESERVE

OBJECTIVES FOR A THREE-YEAR TIMEFRAME:

- 1) Promote the Coastal Training Program throughout the 16 coastal watershed counties to reach potential audiences and partners
- 2) Promote the Reserve's CTP resources to our target audiences (**such as the elected officials**, land use planners, zoning officials, **planning board members**, agency staff, scientists, researchers and environmental professionals (contractors and consultants) through effective and efficient means.
- 3) Secure continued resources for program implementation

- 4) Develop partnerships for training programs
- 5) **Identify effective and efficient methods to advertise Coastal Decision-Maker Workshops**, distribute information and facilitate networking.

Marketing Plan: (related item)

1. WEBSITE:

- Continue coordination with Rookery Bay and GTM NERRs to create, and maintain the Florida statewide, central CTP website.
- As additional needs and formats for online training are identified and developed, they will be included on the website and promoted by email and other methods.

**North Carolina National Estuarine Research Reserve
Coastal Training Program
Carteret County Town Planning Boards Needs Assessment**

Planning Experience

Planning board members were asked how long they have been involved in the planning profession in eastern North Carolina (Figure 1). Fifty percent of respondents had two or less years experience.

Timing of Training

Respondents were asked if trainings were developed based on the results of the survey, what would be the best time and length. The majority, 33%, said **a half weekday**

Planning Issues

The planning board members were asked about what specific planning issues they would like more information. These planning issues include: working together as a board, overview of **planning, comprehensive and strategic planning, zoning, subdivision management, coastal area planning, aesthetic regulations and transportation planning.**

Environmental Issues

The planning board members were asked about what specific environmental issues they would like more information. Some of the environmental issues included on the survey were **barrier island processes, basin wide plans, Coastal Habitat Protection Plans, groundwater protection, low impact development, marina management, stormwater runoff and wetlands.**

However, environmental issue training **needs vary based on where the town's location.** Coastal erosion, beach restoration and barrier island processes rank fairly low overall. But when the data from just the four barrier island communities (Atlantic Beach, Pine Knoll Shores, Indian Beach and Emerald Island) were analyzed, coastal erosion, beach restoration and barrier island processes are among the top environmental issues where training is greatly needed, along with

stormwater, septic systems and low impact development (Figure 5). Therefore, training may need to be tailored to accommodate the diversity of needs of Carteret County town planning boards.

Planning and Permitting Agencies

Finally, the planning board members were asked for what specific state/federal agency's planning and permitting processes they would like more information. The North Carolina Division of **Coastal Management**, North Carolina Division of **Water Quality** and North Carolina Department of **Transportation** were the top responses where training is greatly needed.

Conclusions

Based on the high response rate, 71%, these planning board members are **interested in training** opportunities. **Half to full day workshops** during the week appears to be the most convenient time for the planning board members. Since there are a variety of topics that these boards are interested in knowing more about, the CTP will attempt to offer several workshops, perhaps on a quarterly basis, each with a different focus. For example, one workshop may cover coastal area planning, the Division of Coastal Management's rules and regulations, barrier island processes and how to deal with coastal erosion/beach restoration. Another workshop could focus on stormwater and include ways to incorporate low impact development and stormwater structural best management practices into local development practices. Post-workshop evaluations will be conducted to capture the changing needs of these planning board members as well as gauge the usefulness of these workshops.

A Survey of Stakeholders to Determine Florida Sea Grant's 2006-2009 Programmatic Objectives for Coastal Communities and Water-Dependent Businesses

Compiled and Edited by
Robert Swett and Susan Fann

Ranking Tools and Techniques

Survey respondents were asked to rate the importance of eight tools and techniques that could be used to address issues affecting coastal communities and water-dependent businesses (Table 3). The headings for columns 2 through 5 in Table 3 contain the levels of importance that a respondent could assign to each tool or technique. The values in parentheses within each of these four column headings were used to calculate the average rank (column 6) for each tool/technique (not important = 0, low importance = 1, medium importance = 2, and high importance = 3). In each cell located under columns 2 through 5, the quantity in parentheses corresponds to the number of respondents and the percentage to the proportion of respondents who ranked a tool/technique at that particular level of importance. For each tool/technique, the rank receiving the greatest number of responses is highlighted in bold.

Partnerships and partnership building received the highest average rank (2.6): 65 percent of

respondents (95 respondents) deemed it of high importance, 28 percent (41) of medium importance, and 7 percent (10) of low importance. The next highest average rank was received by science-based facilitation to enhance public involvement in coastal policy and management decisions (2.5), followed by the application of science-based models (2.5). Next came environmental/science education (2.4), decision support tools (2.4), technical training/professional development (2.2), on-line information search tools (2.1), and topical conferences/workshops (2.1).

Respondents were given the opportunity to list three additional tools or techniques that were not listed on the survey. In many cases, they elaborated on the tools/techniques presented on the survey:

Partnerships and partnership building:

- Engage political entities and marine industry; use not-for-profit groups to gather data, conduct assessments and environmental rehabilitation; federal, state, regional, local entities in concerted planning and development; example: Ocean Conservancy and Tampa Bay Watch
- With professional society affiliations; coordinating university research departments; civic organizations; civic watch dog groups; economic development community
- Better use of citizen volunteer groups/system
- Utilize information available from resource users who have been in specific areas for up to half a century

Science-based facilitation to enhance public involvement:

- Public projects (e.g. mangrove planting, reef ball deployment); include success stories
- Youth education programs that include field experience
- Field experiences for policymakers and the media
- Public outreach events; public service announcements
- Contests and idea competitions distributed via newspapers
- Provide information to non-English speaking citizens
- Education (e.g., environmental) modules for High School science classes, marine facility personnel, and public (e.g., coastal residents) and business leaders
- Cross-fertilize formal higher education programs (e.g., environmental science, engineering, and policy administration curricula)
- Sponsorship of specific coastal efforts by local organizations (e.g., similar to Adopt-A-Road); accomplish through direct funding, or via project monitoring
- Recognition of local governments that make efforts toward cleaner/safer waterways
- Establish community programs

Science-based models:

- Science-based models to demonstrate that growth can coexist with proper stewardship of natural resources
- Quantitative predictive models for ecosystem management (e.g., Carl Walters and Daniel Pauly20)
- Numerical models for hydrodynamics, water quality, sedimentation, quantitative fisheries
- Local/regional economic impact analyses of recreational boating (economic base models)

- and comprehensive waterfront planning
- Recreational boating and use-intensity projections and forecasts
- Input/output economic impact models
- Digital Elevation Model (DEM)

Environmental/science education:

- For homeowner associations and special districts not controlled by local government
- For the public on benefits of resource enhancement
- Professional training for educators
- Information dissemination to local chambers of commerce
- Topical white papers for legislature
- Citizen referendums
- Insertion of relevant environmental information into professional/trades certification programs

Decision support tools:

- A Web-based clearing house of decision support tools
- Surveys of local communities to gauge knowledge of issues and where public support is lacking
- Anecdotal observations over time are missing from today's environmental programs
- Gap Analysis; water quality monitor; STORET/TMDL; NPDES (National Pollutant Discharge Elimination System); TSS-total suspended sediment; GPS technology; field research
- Economic studies to inform political decisions, particularly with regard to habitat and resource valuations
- Geographic information (for GIS): bathymetric mapping, mapping of environmentally important resources; boat 'trafficheds,' service areas, and traffic analyses

Technical training or professional development:

- On-line training and DVD-based training procedures
- Grant/fund procurement training
- Train managers on statutes relevant to their duties (e.g., knowing and understanding laws regarding permitting and resource protection)
- The Court System – how to sue to carry out adopted plans
- State lobbying and engaging the political process
- Employ training that is low cost and targeted to local issues
- Training content specific to user groups
- Mandatory education classes for boat owners regarding safety, boater responsibility
- Fisheries training- remote (e.g. hydro-acoustic or radio tags) tag-and-monitoring systems for gauging fishing mortality of Florida's high value fish and invertebrate species

Topical conferences/workshops:

- Regular regional or local meetings
- University meetings and programs
- At marine trade shows
- County Commission meeting presentations

- Teleconferences
- Policy workshops
- Legal issues that affect water-dependent coastal communities and businesses

Miscellaneous ideas (Political process):

- Enhance visibility of extension agents within local government
- Maintain a presence in Tallahassee
- Interagency coordination
- Monitor (occupational) positions in county governments
- Hold environmental organizations to their mission: Why is Save the Manatee Club involved in growth management? Why is the Humane Society involved in waterway regulation? The public is losing trust in these groups
- Reign-in activist state and federal staffers; many are not held accountable for misrepresentation of facts

Ranking Information Delivery Formats

A role of Sea Grant extension is to disseminate information that helps clients and stakeholders resolve issues that affect coastal communities and water-dependent businesses. Respondents were shown 24 different methods or formats to disseminate information and were asked how likely they are to make use of each one (Table 4).

Of the 151 survey respondents, 150 answered this question. The headings for columns 2 through 6 in Table 4 indicate the degree to which a respondent would likely use a particular information format. The values in parentheses within each of these six column headings were used to calculate the average rank (column 8) for each format/method (least likely = 1, somewhat likely = 2, likely = 3, very likely = 4, and extremely likely = 5). In each cell located under columns 2 through 6 the quantity in parentheses corresponds to the number of respondents and the percentage to the proportion of respondents who ranked a format/method at that particular level of likelihood. For each format/method the rank receiving the greatest number of responses is highlighted in bold.

The two most likely sources of information selected by respondents were Web sites and one-on-one contact (the traditional extension mode); both sources were ranked at 3.8 (out of a maximum possible score of 5). The next five most likely sources of information selected by respondents were workshops and training (3.7), conferences and seminars (3.5), professional meetings (3.4), geographic information systems (3.3), and electronic newsletters (3.3). The five lowest ranked sources of information were posters (2.5), e-mail discussion groups (2.4), radio (2.3), distance learning (2.2), and, lastly, audio tapes (1.8).

Conclusions

Based on the input that stakeholders provided in their responses to the survey, Florida Sea Grant established programmatic priorities in the area of waterfront communities and water-dependent businesses for its 2006-2009 biennial core program. In February, there was a call for statements of interest for proposed new projects for two-year research projects based on the following

research priorities as determined from the survey.

WATERFRONT COMMUNITIES -- Goal: Increase the Economic Competitiveness and Environmental Sustainability of Coastal Communities and Water-Dependent Businesses

A. Foster Economically and Environmentally Sustainable Growth for Coastal Communities and Water-Dependent Businesses

1. **Develop environmental and economic sustainability goals** that assist public policy decision makers in managing coastal communities and water-dependent businesses; develop corresponding **indicators that measure progress towards goal attainment**.
2. **Evaluate social and economic costs and benefits** that derive from public to private conversion of waterfronts and waterway access points, examine the causes of decline/growth in recreational and working waterfronts, and analyze incentives to retain water-dependent and water-related facilities that serve public needs and reflect social values.
3. Evaluate public policy and regulatory and non-regulatory tools that increase/decrease the rate of public to private conversion of waterfronts and waterway access points.
4. **Create and extend new technologies and products that meet emerging business opportunities**, ranging, for example, from concepts that improve charts for recreational boaters, public access to ocean observation system information, and equipment modifications for vessels that reduce or eliminate environmental impacts.

B. Develop Decision Support Tools and Information to Guide Public Policy and to Support Coastal Zone Management

1. **Evaluate the cumulative and secondary impacts** on coastal ecosystems due to development, tourism, and recreation; develop the capacity to **forecast the long-range sustainability** of coastal ecosystems; and provide comprehensive spatial/temporal perspectives on environmental/economic impacts of various coastal development scenarios.
2. Analyze the bio-physical effects of navigational improvements and boating activity on waterways and adjacent habitats.
3. **Link decision concepts**--such as place-based management, growth management, and water surface zoning--**with the application of geographic information technologies** to plan for optimal use of coastal shorefronts and adjacent waterways.
4. Develop methods to characterize, map, and forecast recreational boating patterns and activities, both in time and geographic space.
5. **Measure the economic value** to coastal communities and water-dependent businesses **of natural resources ("natural capital")** and develop and extend informational products for citizens and community decision makers.

C. Create a Regulatory and Non-regulatory Framework for Sustainable Community Development and Business Growth

1. Determine the efficacy of best management practices (**BMP**) **for water-dependent businesses**, such as those employed in the Clean Marina Program; develop non-regulatory mechanisms that enhance voluntary compliance with environmental BMP; and examine

- empirical relationships between voluntary compliance strategies and actual results.
2. Determine how **new technologies and decision concepts** that pertain to near-shore waters fit into the complex federal, state and local jurisdictional framework for marine waters.
 3. Develop a legal concept for the most common issues that give rise to coastal and marine conflicts, and **evaluate alternative dispute resolution mechanisms**.
 4. Assist coastal communities that have endured declines in their economic bases to refocus and **utilize existing resources to their economic and environmental advantage**.

**An Assessment of the Training Needs of the Local Officials of the
Coastal Municipalities of Massachusetts with regard to Coastal Issues**
Duane Dale, DFD Associates for the Massachusetts Coastal Training Program
September 20, 2002

For the purposes of this questionnaire, **four categories of volunteer municipal official** were targeted initially: select board members and city councilors, planning board members, health board members, and conservation commission members. A “coastal” category was added to include the various boards and commissions that are unique to coastal communities, such as harbor commissions, shellfish commissions, marina commissions, and waterways committees. An “other” category was added to include miscellaneous other roles with a possible coastal connection.

Executive Summary

RESULTS

Question: *What local officials are most likely to attend training?*

On average, conservation commissioners and staff report the highest level of participation in training, followed by health boards and staff, then coast-related committee members and staff (e.g., shellfish constables). Employees report a higher level of participation in training than volunteers do. Finally, respondents from the Cape & Islands region have, on average, a higher level of participation in training than those from other parts of the coast.

Question: *What delivery formats are preferred?*

Workshops and reading materials are the most popular formats, while seminars, case studies, and panel discussions were also selected by at least 40% of the respondents. Results indicate that employees prefer hands-on training, simulations (e.g., role playing), fact sheets, and technical assistance by phone. Volunteers prefer training via local meeting presentations. Employees indicate they would prefer the following incentives: certificates, incorporation of training as part of professional association meetings, and endorsement by a professional association.

Question: *What are preferences with regard to training time, location, and other details?*

The preferred days of the week for training are Tuesday, Wednesday, and Thursday for both volunteers and municipal employees. Saturday and Sunday are better for volunteers than municipal staff. Mornings are preferred by employees, while evening sessions are better for volunteers. The prime months for training are January – March and summer months of June – August should be avoided. Respondents indicated that providing information or training workshops at their meetings or in conjunction with professional conferences would be especially

convenient. The majority of respondents would travel up to one hour each way to attend training.

RECOMMENDATIONS

Based upon the results of the study, the following recommendations may help training providers target the information needs and preferences of municipal employees and volunteers:

- Provide information via workshops and reading materials. Reading material should be made available both in print and on a web site.
- Offer information or training workshops as components of local meetings and conferences.
- Offer events on Tuesdays, Wednesdays or Thursdays, and, if half-day sessions are sufficient, aim for morning events.
- Consider evening or weekend training sessions when targeting volunteers—many of whom are employed elsewhere.
- Offer training in “off season” months, particularly January through March. Summer months should be avoided, unless the training is season or site-specific and can only be accomplished at that time
- Consider offering incentives to increase attendance. For example, training providers could seek the endorsement or approval of relevant professional associations. Other options include offering certificates and/or continuing education units (CEUs) if applicable.

Full Report Recommendations

The implications of this needs assessment, regarding format and logistics, are clear and straightforward. The implications regarding training content are more complex.

Formats

- Use workshops and reading material as the primary formats for CTP.
- Make reading matter available both in print and on a web site.
- Offer technical assistance to provide situation-specific support regarding the topics addressed by training and reading matter.
- If feasible, experiment with providing training or information sessions as a component of local board or commission meetings, or at special one-town or neighboring-town gatherings. (This will be especially appreciated by a some of the volunteers, more so than by employees.)

Workshops are the preferred format of two-thirds of the respondents for addressing the topics in which they are interested. Workshops can mean many different things; the respondents’ ratings of other “in-person” formats suggest which specific workshop formats will be more or less acceptable. Seminars, case studies, and panel discussions each were favored by about half of the respondents. Hands-on approaches, problem solving regarding important local issues, and roundtable discussions (with peers) were rated slightly lower (but simulations were substantially lower, with some specific comments about dislike for role plays). Lectures were favored by only about one-fourth of the respondents.

Materials to read are favored by about three-fifths of the respondents, making them a close second choice, after workshops.

Web-based courses are of interest to about one person in six – probably not enough to justify the preparation time and expense, unless it is for very specific topics well suited to that medium. Employees rate their ability to find material on the world wide web significantly higher than do volunteers, and it may be that employees check their e-mail somewhat more often than do volunteers. Workshop videos are of interest to only about one respondent in ten, and workshop audios are only of interest to 1 in 20 (even though they, unlike videotapes, could potentially be used while driving a car). If production time and distribution costs are an issue, a similar level of effort directed toward capturing the handouts, computer graphic presentations, and other key elements of a workshop in a print or web-based form may be more valuable than either workshop audio and video or developing full-fledged web-based courses. Local meeting presentations were favored by about 30% of volunteers (but only 15% of employees).

Timing and Travel Distances

- Offer workshops mostly on Tuesday, Wednesday, and Thursday.
- When a half-day is sufficient, favor morning times.
- Treat January, February, and March as the prime months for training; avoid June, July, and August (unless a program's content actually requires it). All other months are acceptable.
- Hold some evening and Saturday sessions to allow for the involvement of those who cannot attend mid-week morning sessions (especially volunteers with other employment).
- If two days are required, schedule consecutive days (especially for employees), or else one week apart but not further apart. If more than two days are required, one week apart may be the better approach.
- Whenever possible, locate events so that no more than one hour's travel (each way) is required – less if possible.

Incentives and Endorsements

- Seek the endorsement or approval of relevant professional associations, and make it known to participants.
- Offer certificates.
- Whenever possible, offer Continuing Education Units (CEUs) or college or university credit, or both.
- Consider offering some sessions in conjunction with professional conferences.

Endorsement by a professional association appears to be the single most influential incentive or endorsement of the six listed on the questionnaire; it would reportedly make a difference for slightly more than one in three participants. Certificates are a close second; one-third of the questionnaire respondents report that certificates would make them more likely to attend a training session. CEU' and College or University credit will matter to 20 to 25%. A well-chosen combination of incentives and endorsements will do the most to encourage attendance. Carrying out all four of the incentives and endorsement recommendations listed above would make a difference to almost two-thirds of the questionnaire respondents.

Event Publicity

- Develop a database of local officials, including mail and e-mail addresses. Update it periodically – preferably after April elections. Provide ways for those listed to update their information or to ask to be removed from the list.
- Use E-mail and/or U.S. mail to publicize events. The most economical approach will be to use E-mail only (without U.S. mail) for those who provide an e-mail addresses, but the combination of e-mail and U.S. mail might reinforce the message or prove more reliable in securing responses.
- Use organization newsletters and/or mass media to reach those who are not in the database.
- Involve past and current participants in recruiting other local officials from their communities.

Pricing

- Charge no more than \$50 for one-day training sessions.
- Offer a reduced rate of \$35 for one-day training sessions for those volunteers who are paying from personal funds and do not expect to be reimbursed.
- Consider similar discounts for three or more sign-ups from the same community (to encourage developing a “critical mass” of participants) and multi-event sign-ups by a single person. Develop ways to manage this that do not encourage delaying sign-ups until the critical number has committed: “Please register ASAP to guarantee a place; if two others from your community register, you will receive a partial refund.”

Training Content

The key strategic choices for the Coastal Training Program have to do with training content. This needs assessment has powerful implications for those choices, but the information from the needs assessment will inevitably be filtered through the mandates and organizational values of the CTP partners. The intention of this discussion is to clarify the choices and the possible implications of the needs assessment information for those choices. This

**Science Translation for Non-Point Source Pollution
Control -A Cultural Models Approach with Municipal Officials**
A Final Report Submitted to
The NOAA/UNH Cooperative Institute for Coastal
and Estuarine Environmental Technology (CICEET)
Submitted by Christine Feurt Wells National Estuarine Research Reserve
& Department of Environmental Studies University of New England
March 27, 2006

Cultural models are shared perceptions and attitudes about how the world works. People use cultural models as cognitive tools to reason, categorize and determine their behaviors toward environmental issues. Research included semi-structured qualitative interviews of water program managers, scientists, and municipal officials actively involved water management in

southern Maine. Interviews were transcribed and coded using Grounded Theory, a discourse analysis methodology. Research revealed six cultural models related to the *value* of water. The cultural model for reasoning about threats to water is a causal sequence composed of discreet components that are filled with default values for specific situations. People working in the municipal system managing water draw from eight knowledge domains. The cultural models and the knowledge domains used by municipal officials can be used as tools to facilitate science translation and technology transfer by integrating science and technology more effectively into the larger system of municipal environmental decision-making. Watershed approaches to land use can benefit from the systems knowledge gained as a result of the development of the cultural models.

Lessons Learned and Guidelines for Using Collaborative Learning Based upon Cultural Models:

1. The cultural models revealed strongly held values, across a wide spectrum of municipal officials and water managers, related to clean water. All shared the common goal of protecting and improving water quality. The Collaborative Learning process was founded upon these shared perceptions and goals.
2. The cultural models revealed conflicts in the way science approaches water protection and the way municipal officials approach water protection. Action to improve water in spite of scientific uncertainty was key to municipal participation.
3. Incorrect perceptions that environmental management was not a priority for municipal officials resulted in information delivery approaches designed to “teach them what we know so they will act to protect water.” This approach failed to recognize the considerable expertise actively being applied to protect water at the municipal level.
4. The cultural models revealed sources of conflict in water protection related to property rights and economic development viewed as vital for the tax base of municipalities. These ideas collided with the concept of water and land as an integrated system through which the water cycle functions to purify and store water for human use. One task for the Collaborative Learning workshops was to make these dueling concepts explicit and to challenge the group to design watershed protection strategies that would work through this conflict. Principles of Low Impact Development have emerged as a strategy for incorporating water protection into development plans. Approaches linking land conservation and development through transfer of development rights are being explored.
5. Environmental management at the municipal level is an aspect of governance. The culture of this governance system is fundamentally distinct from the culture of the scientific system that produced the Watershed Management Plan. The translation of science is facilitated by the cultural understanding gained through cultural models research. This research revealed the knowledge system associated with municipal water management and cultural meanings of water and threats to water. Communication was designed to frame environmental management strategies in language that overcame barriers associated with scientific uncertainty, economic based conflict and responsibility to act. Collaborative Learning provided the educational structure for negotiation of strategies to bridge the science policy interface to pursue implementation of watershed management goals.

Systems Approaches and Community Approaches for Coastal Planning

By Tony Charles, Pew Fellow in Marine Conservation,
Saint Mary's University, Halifax N.S.

Presented at the OMRN Science and Local Knowledge Node Workshop

“Examining Best Practices in Coastal Zone Planning:

Lessons and Applications for BC's Central Coast” Alert Bay, B.C.

April 3–5, 2003

Five Themes for Coastal Planning

1. Coastal Systems
2. Sustainability, Resilience & Indicators
3. Community-Based Coastal Management
4. Integrated Impact Analysis
5. Networking: The OMRN

#1. Coastal Systems

The Natural System:

Natural Resources

The Coastal Ecosystem

The Biophysical Environment

The Human System:

Coastal Resource Users

Households and Communities

Social/Economic/Cultural Environment

The Resource Management System:

Policy and Planning

Integrated Coastal Management

Development and Research

#2. Sustainability, Resilience, Indicators

An integrated view of sustainability in coastal areas requires that we pay attention to a range of ecological, socio-economic, community & institutional factors. An assessment process can use checklists or sets of indicators...

(a) Sustainability Indicators

Ecological Indicators

Socioeconomic Indicators

Community Indicators

Institutional Indicators

(b) Resilience Indicators

Resilience is the capability of a system, such as a coastal zone (including ecological, human and management components) to persist or ‘bounce back’ following unexpected shocks to the system.

Desired ingredients of a resilient coastal system:

Resilient ecosystem

Resilient communities
Resilient socioeconomic structure
Resilient management institution
Debt, Bankruptcies
Age Structure of Fishers
Diversified Landings
Multi-Fishery Access
Diversified Employment
Economic Diversification
Biodiversity
Benthic Integrity

#3. Community-based Coastal Management

- The idea: local resource users and their communities should have significant responsibility for management
- “A nested system that reflects in social and policy terms a similarly nested relationship of organisms, species, and associations that is found in ecosystems” (Uphoff 1998).

#4. Integrated Impact Analysis: The Example of Climate Change

Physical Changes (e.g. Sea Level, Temperature)
Biological Implications (e.g. Fish Distribution)
Direct Human Impacts (e.g., Fishing, Tourism)
Induced Human Impacts (e.g., Socioeconomic)

#5. Networking: The OMRN, OCEAN MANAGEMENT RESEARCH NETWORK

- An inclusive Canadian network involving researchers and research users across the country dealing with human uses of the ocean & management of such uses
- Coastal planning and management is a key component

Data, Information, Knowledge, and Wisdom

by [Gene Bellinger](#), [Durval Castro](#), [Anthony Mills](#)

There is probably no segment of activity in the world attracting as much attention at present as that of knowledge management. Yet as I entered this arena of activity I quickly found there did not seem to be a wealth of sources that seemed to make sense in terms of defining what knowledge actually was and how it was differentiated from data, information, and wisdom. What follows is the current level of understanding I have been able to piece together regarding data, information, knowledge, and wisdom. I figured to understand one of them I had to understand all of them.

According to Russell Ackoff, a systems theorist and professor of organizational change, the content of the human mind can be classified into five categories:

1. **Data:** symbols□
2. **Information:** data that are processed to be useful; provides answers to "who", "what",

- "where", and "when" questions □
3. **Knowledge:** application of data and information; answers "how" questions □
 4. **Understanding:** appreciation of "why" □
 5. **Wisdom:** evaluated understanding.

Elkhorn Slough National Estuarine Research Reserve
COASTAL TRAINING PROGRAM WEB SURVEY
Spring 2005

The Coastal Training Program of the Elkhorn Slough National Estuarine Research Reserve (ESNERR) has previously been targeting coastal government planning and regulatory agency personnel; more recently, biological consultants have been a significantly increasing audience. Because of biological consultants' increasing interest in the Reserve and the important role they play in protecting natural resources in California, ESNERR felt it was necessary to better understand these consultants' educational needs.

Trends Analysis of Coastal Training Programs
in the National Estuarine Research Reserve System
Prepared for: The Estuarine Reserves Division (ERD)
of the National Oceanic and Atmospheric Administration (NOAA)
Prepared by: The Great Lakes Environmental Finance Center (GLEFC)
November 2004

Trends in Program Training Delivery and Formats

Although the Reserves are using multiple modalities for delivery of their CTPs, trends are evident in program delivery and technique. The overall trend among the Reserves for conducting training activities is the use of workshops, where some type of group interaction occurs. Field exercises and trips were a second common mode of training delivery.

Training across the NERRS is typically delivered in a workshop format (94 percent). Field demonstrations and trips were also indicated by the Reserves (61 percent) as a favored format for training. Lectures (33 percent), conferences (33 percent), courses (33 percent), and demonstrations (33 percent) were additionally noted. Other training delivery methods were web/online (22 percent), seminars (17 percent), roundtable/group discussions (11 percent), and consultations (11 percent).

The miscellaneous methods as cited by the NERRS were technical training programs, books, coworkers, non-governmental events, professional meetings, short-term trainings, case studies, technical publication series, issue papers, presentations, and interactive videos. Figure 3 illustrates the approaches to training methods conducted by the Reserves.

When examined individually by NOAA regions, the NERRS within the Gulf Region indicated that lectures, workshops, field exercises and trips, and demonstrations were equally preferred

methods. The NERRS within the Mid- Atlantic Region also favored workshops, with courses and field exercises and trips a second popular format. Workshops and field exercises and trips were cited as preferred delivery modes among the NERRS within the North East Region, with conferences and web and online methods also being used. The Pacific Region's NERRS additionally used workshops, as well as several miscellaneous methods. Conferences, seminars, courses, and field exercises and trips were additionally noted. The NERRS within the South East Region cited workshops as preferred for training activities, but also indicated that lectures, conferences, field exercises and trips, and demonstrations were also used.

Trends Among Target Audiences

The Reserves identified audiences to be targeted for training during the Needs Assessment phases of their CTP planning activities. These audiences were considered by the Reserves as coastal policy- and decision-makers. The Reserves define coastal decision-makers as individuals that make decisions about coastal resources on a regular basis in a professional or volunteer capacity. The focus here is on a subset of regional and local coastal decision- makers that participate in CTPs, rather than all coastal decision-makers. Each Reserve identified key coastal resource issues that fall within the context of NERRs priority issues and the related coastal decision-maker audiences they targeted under this program. Each Reserve is committed to periodically reviewing and adjusting program strategies, issues and audiences as appropriate, to reflect changing needs and issues.

The overall trend among the NERRs when targeting audiences for training was the selection of elected and appointed officials. This is a distinct group because, while they may not have expertise in the coastal/environmental arena, they do implement policy relative to coastal and environmental issues. As such, they have the ability to influence coastal decisions on a tactical basis, one decision at a time, such as a local zoning question or the policies of a planning board. This group includes municipal, county, regional, state, and federal elected and appointed officials, selectmen, councilpersons, managers, and administrator, as well as those elected or appointed to boards and commissions.

Sixty-seven percent of the NERRS targeted elected and appointed officials. Two additional significant targeted audiences among the Reserves were government agencies (44 percent) and planners (44 percent). Government agencies include municipal, county, regional, state, and federal government agency staff such as DNR, U.S. Corps of Engineers, U.S. Coast Guard, U.S. EPA and others. The planners include both elected and appointed planning personnel (private and public), shoreline and watershed planners, and engineers. See Figure 5 below. Tables 10, 11, and 12 in Appendix E of this report detail the targeted audiences by Reserve.

Elected and appointed officials are a particularly challenging audience to target in any environmental training program. Given the high priority ranking of this audience for the CTP, Reserves may need to conduct additional audience assessments to obtain the data they need to develop alternative and creative training delivery strategies that will ensure that they have the information they need to make policy decisions that have far-reaching impacts on coastal resources. It may be critical to develop a triangulated, systematic approach at the Reserve level that targets elected officials and their staff through a range

of CTP strategies, as well as to educate their constituencies around the same issues through other education and outreach programs in the Reserve.

Methods and formats to deliver training to this group, as well as the content of training activities, may require different modes of information delivery, and even a different type of group interaction. Many elected/appointed officials have inconsistent schedules that are sensitive to the demands of the position and of the general public. Strategies with training formats that are responsive and flexible to the irregular availability of this audience are best suited to serve this group.

Trends in Training Needs as Identified by the NERRS Audiences

A number of specific needs were indicated by the survey and focus group audiences of the NERRS as a result of their Market Analysis and Needs Assessment CTP planning activities. The survey and focus group audiences cited their specific “needs and wants” (what they felt to be necessary) to coastal training activities. These needs and wants include both training needs and preferred methods for receiving training. Given the range of instruments used by the Reserves to collect this data, specific trends were difficult to identify from the CTP planning documents. However, significant generalizations emerged. This section discusses those needs identified by these NERRS audiences.

The NERRS audiences, overall, indicated **an interest in building skills and knowledge in specific topical areas**. The specific topics cited by these audiences include the priority coastal training issues identified by the Reserves – issues of habitat protection and restoration, land use planning, and air and water pollution control. Additional significant needs cited by the NERRS audiences were with technical assistance and communication technologies, and group interaction and networking opportunities.

The NERRS audiences stated **the need to better understand the relationship between their decision-making (processes) and the impact of their decisions on coastal resource issues and problems**. These audiences indicated that they wanted to understand both the short- and long-term implications of their decisions. **Training activities could be designed to include decision-making outcomes and impacts to the coastal environment. If so, this may present an opportunity for the NERRS to measure changes in policy- and decision-maker attitudes (results of their actions) over time.**

The majority (78 percent) of the NERRS indicated that their audiences desired training in specific topical areas. Twenty-eight percent of the Reserves cited technical assistance and communication technologies as a specific training need, while 22 percent stated that their audiences cited the need for group interaction and networking experiences. Other training needs indicated by the NERRS audiences were the need for science-based training (17 percent), coordination and collaboration of training activities (17 percent), building professional skills (11 percent), and integrating science into practice (six percent). Eleven percent of the Reserve audiences stated miscellaneous needs, such as a desire for field activities and to integrate training with site based K-12 education. These topics are detailed by Reserve in Tables 13, 14, and 15 of Appendix E.

The Reserve audiences also cited incentives (17 percent) as a preference for training programs. Specific incentives listed by the Reserve audiences include expert and knowledgeable speakers that training should be offered at convenient times and at convenient locations, certification, and continuing education credits.

When observed by individual NOAA regions, the audiences within each of the five regions also indicate the need for training in specific topical areas. In fact, there appears to be an even disbursement within each of the five regions across all categories, with the exception of the Pacific and South East Regions. Within the Pacific Region, the need for technical assistance and communication technologies is indicated, and within the South East Region, the need for science-based training is cited.

**Coastal Training Needs Assessment and Market Inventory
for the Jacques Cousteau National Estuarine Research Reserve**
Volume 1
Conducted for Rutgers University and the
Jacques Cousteau National Estuarine Research Reserve
by Responsive Management
2003

The only reference to elected officials was their identification as an audience that needs training by other groups.

**Coastal Resources Management Training Needs Assessment:
A Report on Seven Focus Groups in Northern Ohio**
Prepared for: Old Woman Creek National Estuarine Research Reserve,
Ohio Department of Natural Resources, Ohio Sea Grant College Program
Prepared by: Great Lakes Environmental Finance Center, February 2003

The focus groups only involved professionals including training providers, not elected officials.

**Coastal Resources Management Training Needs Assessment:
Strategies and Opportunities**

Prepared for: Old Woman Creek National Estuarine Research Reserve
Ohio Department of Natural Resources Ohio Sea Grant College Program
Prepared by: Great Lakes Environmental Finance Center, June 2003

In contrast, non-provider groups gave the **highest ratings to Land Use/Infrastructure (3.28) and Economic Development (3.26)**. From the focus group discussion as well, non-provider participants valued training and information regarding economic aspects of coastal resources management. Participants described the need to understand the economic impact and value of coastal and watershed protection, including sub-topics such as the value of protecting coastal vistas, zoning impacts, the use of effective zoning as a tool for protection, and the economic aspects of non-point source pollution. **Respondents expressed a need for information on an economic value-oriented approach, either as a defense or justification for their policy decisions. This information, they believed, would allow them to pursue effective protection and management policies. This also would give them a “numbers-oriented” way to appeal to landowners, developers, and elected officials in addressing coastal protection issues.**

Marketing

Training providers identified assistance in marketing their programs more effectively and more widely as a key need. **The providers targeted a range of audiences for their programs, but focused on local elected officials and candidates as their primary audience.** For this audience, the providers currently use a variety of methods for such marketing, but **direct mail strategies dominated.** The providers consider this to be the best technique for reaching elected officials (as opposed to email or web pages), while considering the costs of direct mailing (which can be relatively expensive when compared to electronic techniques) as cost-effective. **Marketing techniques of email and web pages were ranked significantly lower by the current providers as effective marketing techniques.**

The results from the focus groups, which **were attended by elected officials** but did focus on local decision-makers, are somewhat contradictory. When asked how access to information about training could be improved, participants **suggested use of the World Wide Web**, along with newsletters and e-mail list serves from professional associations as mechanisms that would improve information flow. Participants also noted the need for use of a variety of mechanisms for information dissemination, including use of the computer technologies.

Coastal Training Market Analysis Final Report
Maxine Goodman Levin College of Urban Affairs
Cleveland State University
August 2002

No mention of elected officials

**South Slough National Estuarine Research Reserve Coastal Training Program
Assisting Coastal Decision Makers in the Lower Columbia Biogeographic Province
A Strategy for the Coastal Training Program**
July 18, 2003

They mentioned the need to develop specialized materials to use in work with elected officials.

Market Analysis Summary
AN INVENTORY OF COASTAL MANAGEMENT TRAINING PROGRAMS IN WASHINGTON STATE
Cathy Angell, Padilla Bay Reserve, Coastal Training Program, January 2002

They listed elected officials in their top five target audiences and number two in the list of gaps, audiences that they are not serving adequately.

Socio-Economic Indicators and Integrated Coastal Management
Bob Bowen and Cory Riley
Environmental, Coastal and Ocean Sciences (ECOS)
University of Massachusetts, Boston
A Power-Point Presentation

Strategic Planning for Socio-Economic Indicator Design

- Establish a typology to describe the uses for and benefits derived from an indicator- driven process
- Develop a set of indicator classes and specific measures responsive to that typology
- Initiate a protocol that would set priorities in data acquisition

What is the Function of an Indicator?

- To reduce the number of measures that normally would be required to an exact presentation of a situation
- To simplify the communication process (OECD, 1998)

The Design of an Indicator System is Context Driven

- What are the critical social, economic and cultural indicators driving coastal management and environmental systems?
- What are the anthropogenic forcings most critical to the description and prediction of coastal environmental change?
- What are the evaluators needed to assess the success of Integrated Coastal Management?
- What are the social/economic/cultural costs imposed by coastal environmental degradation?

- What are the socio-economic indicators most directly linked to coastal environmental monitoring/observing programs?

Indicator Classes and Design Models

- Needed to assure sufficient breadth of design and that indicators are linked in context
- Pressure-State-Response (PSR)
- Driver-Pressure-State-Impact-Response (DPSIR)
- Input-Output-Outcome-Impact

Indicators of Socio-Economic Drivers

- Resource Endowment
- Resident/Seasonal Population
- Employment Patterns
- Patterns of Land Use/Land Cover
- Patterns and Trends in Industrial Production Driver

Indicators of Socio-Economic Pressures

- Proportion of Population Served by Wastewater Treatment
- Location and Attendance at Bathing Beaches
- Commercial Landings of Capture Harvest Seafood

Indicators of Socio-Economic Impacts

- Benefits Values Gained by Wastewater Construction
- Values lost to Beach Closing Days
- Health and Productivity Losses of Seafood borne Disease
- Patterns of Seafood Consumption

Evaluating Programmatic Success Input-Output-Outcome-Impact Indicators

- Input –Measure of time, personnel, or services invested
- Output –Measure specific actions taken by the program
- Outcome –Measure larger goals of the program
- Impact –Measure of system change (in the present context)

Indicator Design Must be Viewed as Part of a Data Analysis and Management System

- Articulation of Existing Efforts and Indicator Design
- Acquisition of Compatible Data
- Development of Data Management/Quality Assurance System
- Data Analysis and Information Management
- Product Development and Capacity Building

The WBNERR Coastal Training Program
**An Impact Evaluation of Selected Workshops
and Outcome Map for the Coastal Training Program**

December 15, 2004

Draft Report

Elin Torell*, James Tobey*, and Karin Jakubowsky**

*The Coastal Resources Center, University of Rhode Island

**Department of Coastal Management and Marine Affairs, University of Rhode Island

Gaps in information for decision makers

“At the local level, people are not sure where to go for technical assistance. They need clearer information on the roles and services of different government, private and academic bodies and agencies” – CCW Participant

We also asked the participants what they perceived to be the gaps in information among decision-makers. Apart from needing training on the topics mentioned in the previous section, the participants stated that decision-makers often have general knowledge on well known issues - such as wastewater - and that they don't need to be converted (although they said that elected officials are vastly less informed than non-elected resource managers). However, what they need is practical “how-to” information on how to use new techniques, how these new techniques do not have to become a financial burden, and where they can find more information and technical assistance. Local decision-makers may also need training on state and federal environmental, technical, and regulatory issues and how they relate to their local context and issues. As stated in the previous section, inviting state and federal regulatory agencies to participate in the workshops could help achieve this.

The participants also stated that the workshops mostly focus on physical impacts and not social impacts of various issues. However, since the social aspects are what influence the political climate, it is also important that the workshops raise the socio-political impacts of different management options. The workshops can also help people become critical thinkers.

Appendix E

Insights from Needs Assessments and Other Reports

This Appendix has four pages of selected insights and recommendations related to elected and appointed officials excerpted from Appendix D. Appendix D has twenty-three pages of sections from past needs assessments of coastal training programs around the country and other coastal program reports. This Appendix was further synthesized into the insights on page 10 of the main needs assessment report. These materials are provided to document the qualitative analysis process and provide a context and explanation for the resulting insights.

Apalachicola NERR Market Analysis, 2004

1. There is a lack of knowledge as to what training is being offered and who is providing it.
2. There is a lack of interest in enrolling in training events, particularly by local elected officials.
3. There is a need for more special topic workshops,
4. Officials want an overview of comprehensive and strategic planning, zoning, subdivision management, coastal area planning, aesthetic regulations and transportation planning.

A Survey of Stakeholders to Determine Florida Sea Grant's 2006-2009 Programmatic Objectives for Coastal Communities and Water-Dependent Businesses

1. Partnerships and partnership building received the highest average rank (2.6). The next highest average rank was received by science-based facilitation to enhance public involvement in coastal policy and management. Next came environmental/science education (2.4), decision support tools (2.4), technical training/professional development (2.2), on-line information search tools (2.1), and topical conferences/workshops (2.1).
2. Science-based facilitation to enhance public involvement included field experiences for policymakers and the media
3. Science-based models included: science-based models to demonstrate that growth can coexist with proper stewardship of natural resources, local/regional economic impact analyses of recreational boating (economic base models) and comprehensive waterfront planning, recreational boating and use-intensity projections and forecasts and input/output economic impact models
4. Decision support tools included: web-based clearing house of decision support tools, surveys of local communities to gauge knowledge of issues and where public support is lacking, anecdotal observations over time are missing from today's environmental programs and economic studies to inform political decisions, particularly with regard to habitat and resource valuations
5. The two most likely sources of information selected by respondents were Web sites and one-on-one contact (the traditional extension mode);
6. Develop environmental and economic sustainability goals that assist public policy decision makers in managing coastal communities and water-dependent businesses; develop corresponding indicators that measure progress towards goal attainment.
7. Develop Decision Support Tools and Information to Guide Public Policy and to Support Coastal Zone Management

8. Measure the economic value to coastal communities and water-dependent businesses of natural resources (“natural capital”)
9. Create a Regulatory and Non-regulatory Framework for Sustainable Community Development and Business Growth
10. Assist coastal communities that have endured declines in their economic bases to refocus and utilize existing resources to their economic and environmental advantage.

**Science translation for non-point source pollution control –
A cultural models approach with municipal officials.**

Submitted by Christine Feurt Wells National Estuarine Research Reserve &
Department of Environmental Studies University of New England. March 27, 2006

1. The cultural models and the knowledge domains used by municipal officials can be used as tools to facilitate science translation and technology transfer by integrating science and technology more effectively into the larger system of municipal environmental decision-making. Watershed approaches to land use can benefit from the systems knowledge gained as a result of the development of the cultural models.
2. The cultural models revealed conflicts in the way scientists approaches water protection and the way municipal officials approach water protection. Action to improve water quality in spite of scientific uncertainty was key to municipal participation.
3. An incorrect perceptions that, “environmental management was not a priority for municipal officials,” resulted in information delivery approaches designed to “teach them what we know so they will act to protect water.” This approach failed to recognize the considerable expertise actively being applied to protect water at the municipal level.
4. The cultural models revealed sources of conflict in water protection related to property rights and economic development viewed as vital for the tax base of municipalities. These ideas collided with the concept of water and land as an integrated system through which the water cycle functions to purify and store water for human use. One task for the Collaborative Learning workshops was to make these dueling concepts explicit and to challenge the group to design watershed protection strategies that would work through this conflict. Principles of Low Impact Development have emerged as a strategy for incorporating water protection into development plans. Approaches linking land conservation and development through transfer of development rights are being explored.
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Data, Information, Knowledge, and Wisdom
by [Gene Bellinger](#), [Durval Castro](#), [Anthony Mills](#)

The content of the human mind can be classified into five categories:

1. Data: symbols
2. Information: data that are processed to be useful; provides answers to "who", "what", "where", and "when" questions
3. Knowledge: application of data and information; answers "how" questions
4. Understanding: appreciation of "why"
5. Wisdom: evaluated understanding.

Scientific data when it is given to decision-makers as information in a process that yields knowledge and understanding and ultimately wise decisions.

**Trends Analysis of Coastal Training Programs
in the National Estuarine Research Reserve System.**

Prepared for: The Estuarine Reserves Division (ERD) of the
National Oceanic and Atmospheric Administration (NOAA).

Prepared by: The Great Lakes Environmental Finance Center (GLEFC),
November 2004

1. Training across the NERRS is typically delivered in a workshop format (94 percent). Field demonstrations and trips were also indicated by the Reserves (61 percent) as a favored format for training. Lectures (33 percent), conferences (33 percent), courses (33 percent), and demonstrations (33 percent) were additionally noted. Other training delivery methods were web/online (22 percent), seminars (17 percent), roundtable/group discussions (11 percent), and consultations (11 percent).
2. Elected and appointed officials are a particularly challenging audience to target in any environmental training program. Given the high priority ranking of this audience for the CTP, Reserves may need to conduct additional audience assessments to obtain the data they need to develop alternative and creative training delivery strategies that will ensure that they have the information they need to make policy decisions that have far-reaching impacts on coastal resources. It may be critical to develop a triangulated, systematic approach at the Reserve level that targets elected officials and their staff through a range of CTP strategies, as well as to educate their constituencies around the same issues through other education and outreach programs in the Reserve.
3. Methods and formats to deliver training to this group, as well as the content of training activities, may require different modes of information delivery, and even a different type of group interaction. Many elected/appointed officials have inconsistent schedules that are sensitive to the demands of the position and of the general public. Strategies with training formats that are responsive and flexible to the irregular availability of this audience are best suited to serve this group.
4. The NERRS audiences stated the need to better understand the relationship between their decision-making (processes) and the impact of their decisions on coastal resource issues and problems.

5. Training activities could be designed to include decision-making outcomes and impacts to the coastal environment. If so, this may present an opportunity for the NERRS to measure changes in policy- and decision-maker attitudes (results of their actions) over time.

**Coastal Resources Management Training Needs Assessment:
Strategies and Opportunities,**

Prepared for: Old Woman Creek National Estuarine Research Reserve.

Prepared by: Great Lakes Environmental Finance Center, June 2003

1. Respondents expressed a need for information on an economic value-oriented approach, either as a defense or justification for their policy decisions. This information, they believed, would allow them to pursue effective protection and management policies. This also would give them a “numbers-oriented” way to appeal to landowners, developers, and elected officials in addressing coastal protection issues.
2. The providers targeted a range of audiences for their programs, but focused on local elected officials and candidates as their primary audience. For this audience, the providers currently use a variety of methods for such marketing, but direct mail strategies dominated.

Socio-Economic Indicators and Integrated Coastal Management,

Bob Bowen and Cory Riley, Environmental, Coastal and Ocean Sciences (ECOS),
University of Massachusetts, Boston

Strategic Planning for Socio-Economic Indicator Design. Establish a typology to describe the uses for and benefits derived from an indicator- driven process. Develop a set of indicator classes and specific measures responsive to that typology. Initiate a protocol that would set priorities in data acquisition

Indicator Design Must be Viewed as Part of a Data Analysis and Management System.

Articulate Existing Efforts and Indicator Design. Acquire Compatible Data. Develop Data Management/Quality Assurance System. Data Analysis and Information Management. Product Development and Capacity Building

**An Impact Evaluation of Selected Workshops and
Outcome Map for the WBNERR Coastal Training Program,**

December 15, 2004, Draft Report

1. *“At the local level, people are not sure where to go for technical assistance. They need clearer information on the roles and services of different government, private and academic bodies and agencies” – CCW Participant*
2. Decision-makers often have general knowledge on well known issues - such as wastewater - and that they don’t need to be converted. However, what they need is practical “how-to” information on how to use new techniques, how these new techniques do not have to become a financial burden, and where they can find more information and technical assistance.
3. Local decision-makers may also need training on state and federal environmental, technical, and regulatory issues and how they relate to their local context and issues. Inviting state and federal regulatory agencies to participate in the workshops could help achieve this.

4. The participants also stated that the workshops mostly focus on physical impacts and not social impacts of various issues. However, since the social aspects are what influence the political climate, it is also important that the workshops raise the socio-political impacts of different management options. The workshops can also help people become critical thinkers.

**North Carolina National Estuarine Research Reserve
Coastal Training Program
Carteret County Town Planning Boards Needs Assessment**

1. The planning board members were asked what specific planning issues they would like more information about. These planning issues include: working together as a board, overview of planning, comprehensive and strategic planning, zoning, subdivision management, coastal area planning, aesthetic regulations and transportation planning.
2. Some of the environmental issues included on the survey were barrier island processes, basin wide plans, Coastal Habitat Protection Plans, groundwater protection, low impact development, marina management, stormwater runoff and wetlands.
3. Half to full day workshops during the week appears to be the most convenient time for the planning board members.

Appendix F Development Decision Procedures

Overview

Local governments make many project specific decisions that impact the coastal environment, including: zoning changes, subdivision plats, planned unit development and other development agreements, development project approvals, wetland mitigation plans, and dock and marina permits. This appendix provides summaries of comprehensive plan amendment and development review processes for the cities and counties listed below. Each county or city procedure is accompanied by a sub-section that provides an outline for information that must be included in each application. Most of the cities and counties in this report have similar procedures, but some require more detail than others do. Both the procedure and the required information can be utilized to determine when CTP services should be offered within each process, and what information or services CTP can provide. A generalized process with possible roles for Coastal Training Programs is provided in the literature review section of the needs assessment report.

Information is provided for:

- St. Johns County
- The City of Naples
- Lee County
- Collier County
- Franklin County
- The City of Apalachicola

St. John's County Application Procedure Outline for Comprehensive Plan Amendments and DRI-Based Comprehensive Plan Amendments

(Steps 1- 10 are relevant to Comp plan Amendments and Steps 1-5 are relevant to DR's)

- 1. Pre-Application Process:** Establish a Pre-Application Meeting and file the information with the Planning Division.

- 2. Pre-Application Meeting:** The Planning staff will meet with the Applicant at the established time but no sooner than five working days after receipt of the Pre-Application Packages. The Planning staff will consider the general nature of the proposed Amendment as it pertains to the Goals, Objectives and Policies of the Comprehensive Plan, and will discuss these concerns with the applicant. In addition, the Planning staff will provide guidance to the applicant on preparing the standard Application Form and related materials.

- 3. Standard Application Process:** Submit Comprehensive Plan Amendment Application Form to the Planning Division during the months of June or December only. At a minimum, Comprehensive Plan Amendment Application Form must be completed and returned along with

the following information and supporting materials, as appropriate:

4. Staff Review Process: The Planning staff shall review the Application Package for compliance with the Goals, Objectives and Policies of the Comprehensive Plan. Additional meetings may take place to discuss transportation, environmental, or other policy concerns. Insufficient information may delay the processing of the Application, and a written request for additional information will be sent to the Applicant in these instances.

5. Subsequent Submittals: Re-submittals and reviews may continue through the month of February or August as applicable unless a written request for continuance is received from the Applicant. Voluntary continuation of the Application beyond this time period may necessitate a delay of six (6) months or more, depending on the status of other then current Applications.

6. Noticing Requirements: All Transmittal Public Hearings and all Adoption Public Hearings which are held by the Planning and Zoning Agency or the Board of County Commissioners shall be advertised.

7. Planning and Zoning Agency Transmittal Public Hearing Process: The Planning and Zoning Agency shall hold a legislative hearing pursuant to Sections 9.05.02 and 9.06.00 of the Land Development Code. Applications shall be referred to the Planning and Zoning Agency for review. The PZA shall submit to the Board of County Commissioners a written recommendation. During this hearing the PZA will:

8. Board of County Commissioners Transmittal Public Hearing Process: The Board of County Commissioners shall hold a legislative public hearing on Comprehensive Plan Amendments, pursuant to Section 9.06.00 of the Land Development Code.

9. Planning and Zoning Agency Adoption Public Hearing Process: The Planning and Zoning Agency shall hold a legislative hearing pursuant to Sections 9.05.02 and 9.06.00 of the Land Development Code.

10. Board of County Commissioners Adoption Public Hearing Process: The BCC shall hold a legislative hearing pursuant to Section 9.06.00 to adopt, adopt with changes, or not adopt the proposed amendment(s).

Information to be Included in the Application (step 3)

a. Basic Information: *Basic information requested by the Application Form is essentially the same as that contained in the Pre-Application Form, including Owner and Applicant Information; Type of Request; Location/Description; Property Information; Proposed Development; Type of Utilities, etc.*

b. Justification/Reasoning: Provide a rational basis for not developing in designated Development Areas as shown in the Future Land Use Map. Include economic reasons and, if available, market study.

c. Consistency with the Future Land Use Element: Provide information regarding the consistency of the proposed land use amendment with the adopted Future Land Use Element objectives and policies and any other relevant sections of the Comprehensive Plan. Also, address consistency with the Strategic Regional Policy Plan and State Comprehensive Plan.

d. Estimated Impact on and Availability of Public Facilities:

1) Describe in more detail how the property is to be developed. Include phasing, uses and estimates of:

- a) number and type of dwelling units
- b) square feet and type of commercial/industrial uses
- c) open space and recreational areas
- d) buffers
- e) wetlands
- f) drainage and infrastructure areas
- g) other uses and sizes. Account for all acres
- h) provide phasing dates and anticipated build out.

2) Public or private utilities: Indicate whether the project will use septic tanks or wells, or whether it will build its own plants. Attach a letter from the utility company stating whether the utility anticipates capacity to service the project through all phases.

3) Estimated Water and Sewer Demand: Discuss phasing, use, gallons per day (GPD) and Peak usage as it relates to the proposed development.

4) Describe the anticipated drainage system.

5) Estimated Solid Waste Demand: estimate 5.7 pounds per person per day or by use.

6) Disadvantaged Van Services: estimate the demand of residential projects by applying 1.5% times the number of dwelling units X 2.44 persons per unit.

7) Recreation/Open Space: estimate the demand of residential projects by applying the applicable formulas contained in the Application form. Revised June 16, 2006 2-6

8) Traffic: estimate the Average Daily Trips by number of dwelling units and square feet of each non-residential use using the trip generation rates from the latest edition of the Institute of Transportation Engineers Trip Generation Manual.

9) Area of Impact: estimate the area of impact using the Traffic Impact Methodology of the

Concurrency Management Ordinance. In addition, estimate the impacts on the Levels of Service on the segments within the Area of Impact by Phase, and attach the calculations.

Requirements for Planning and Zoning Agency Transmittal Public Hearing Process (step 7)

a. Identifies any provisions of this Code, the Comprehensive Plan, or other law relating to the proposed change and describes how the proposal relates to them.

b. States factual and policy considerations pertaining to the recommendation.

c. In the case of proposed amendments to this Code, includes the written comments, if any received from the PZA.

City of Naples Comprehensive Plan Procedures

1. A petition must be completed and submitted to the Planning Department, together with the required fee and supportive materials, at least 30 days prior to the meeting of the Planning Advisory Board (PAB) at which the petition is to be considered. **Prior to the submittal deadline, petitioners are required to arrange a pre-application conference to discuss their request with a member of the Planning Department staff. .**
2. **Petitioners are required to arrange a submittal-review conference with a member of the Planning Department staff to take place at the time of submittal.**
3. The meeting of the Planning Advisory Board will be an advertised public hearing, and the Board will hear the petitioner or his representative and all other interested parties who may appear and wish to be heard.
4. The PAB will submit its recommendation for approval, disapproval or approval with conditions to the City Council. Any such conditions will be set forth in an agreement to be signed by both the petitioner and a member of the PAB.
5. After considering the recommendation of the Planning Advisory Board, the City Council may vote to approve or deny the petition.
6. Comprehensive Plan Amendment Petitions must be acted upon by ordinance.
7. One legible reduced plan
8. Most recent aerial photograph of the site showing boundaries, source and date.

9. Inventory of historic and archeological sites on the property.
10. Inventory of Federal and State listed plant and animal species on the property.
11. Identify government jurisdictions if this property is subject to a Joint Planning Agreement.
12. Map of the existing public facilities that will serve the subject property with a description of the effect the project will have on these facilities.
13. Data and analysis to support this project's suitability relative to the site, the adjacent uses, and the public facility capacities (including water, sewer, fire, police, schools, and EMS).
14. Map of the flood zone, well fields, cones of influence (overlay districts), Coastal Management boundary, and high noise contours that affect the subject property.
15. A residential impact statement petition may also be required.

Information to Be Included in the Application:

- A. *A check for \$1,650.00 made payable to the City of Naples.*
- B. *Proposed Comprehensive Plan Amendment map. Since the size and nature of the amendment may vary, the composition of the required map will be determined by the Planning Director or his designated representative. For small scale comprehensive plan amendments, a future land use map is required and must clearly depict: the proposed future land use designation, the boundaries and location of the subject property in relationship to the surrounding street and thoroughfare network, and land uses and land use designations of adjacent properties. Proof of ownership such as a copy of a warranty deed or a purchase agreement must be submitted.*

The map will show all data pertinent to the request, which shall include at least the following:

- *If subject property has more than one land use designation, provide acreage or square footage totals for each land use designation.*

LEE County Comprehensive Plan Amendment Application Requirements

Information to Be Included in the Application

At a minimum, the application shall include the following support data and analysis. These items are based on comprehensive plan amendment submittal requirements of the State of Florida, Department of Community Affairs, and policies contained in the Lee County Comprehensive Plan. Support documentation provided by the applicant will be used by staff as a basis for evaluating this request. To assist in the preparation of amendment packets, the applicant is encouraged to provide all data and analysis electronically. (Please contact the Division of Planning for currently accepted formats)

A. General Information and Maps

NOTE: For each map submitted, the applicant will be required to provide a reduced map (8.5" x 11") for inclusion in public hearing packets.

Information to be Included in the Application:

(The following pertains to all proposed amendments that will affect the development potential of properties unless otherwise specified).

- 1. Provide any proposed text changes.*
- 2. Provide a Future Land Use Map showing the boundaries of the subject property, surrounding street network, surrounding designated future land uses, and natural resources.*
- 3. Map and describe existing land uses (not designations) of the subject property and surrounding properties. Description should discuss consistency of current uses with the proposed changes.*
- 4. Map and describe existing zoning of the subject property and surrounding properties.*
- 5. The legal description(s) for the property subject to the requested change.*
- 6. A copy of the deed(s) for the property subject to the requested change.*
- 7. An aerial map showing the subject property and surrounding properties.*
- 8. If applicant is not the owner, a letter from the owner of the property authorizing the applicant to represent the owner.*

B. Public Facilities Impacts

NOTE: The applicant must calculate public facilities impacts based on a maximum development scenario (see Part II.H.).

1. Traffic Circulation Analysis

The analysis is intended to determine the effect of the land use change on the Financially Feasible Transportation Plan/Map 3A (20-year horizon) and on the Capital Improvements Element (5-year horizon). Toward that end, an applicant must submit the following information:

Long Range – 20-year Horizon:

- a. Working with Planning Division staff, identify the traffic analysis zone (TAZ) or zones that the subject property is in and the socio-economic data forecasts for that zone or zones;*
- b. Determine whether the requested change requires a modification to the socio-economic data forecasts for the host zone or zones. The land uses for the proposed change should be expressed in the same format as the socio-economic forecasts (number of units by type/number of employees by type/etc.);*
- c. If no modification of the forecasts is required, then no further analysis for the long-range horizon is necessary. If modification is required, make the change and provide to Planning Division staff, for forwarding to DOT staff. DOT staff will rerun the FSUTMS model on the current adopted Financially Feasible Plan network and determine whether network modifications are necessary, based on a review of projected roadway conditions within a 3-mile radius of the site;*
- d. If no modifications to the network are required, then no further analysis for the long-range horizon is necessary. If modifications are necessary, DOT staff will determine the scope and cost of those modifications and the effect on the financial feasibility of the plan;*
- e. An inability to accommodate the necessary modifications within the financially feasible limits of the plan will be a basis for denial of the requested land use change;*
- f. If the proposal is based on a specific development plan, then the site plan should indicate how facilities from the current adopted Financially Feasible Plan and/or the Official Traffic ways Map will be accommodated.*

Short Range – 5-year CIP horizon:

- a. Besides the 20-year analysis, for those plan amendment proposals that include a specific and immediate development plan, identify the existing roadways serving the site and within a 3-mile radius (indicate laneage, functional classification, current LOS, and LOS standard);*
- b. Identify the major road improvements within the 3-mile study area funded through the construction phase in adopted CIP's (County or Cities) and the State's adopted Five-Year Work Program; Projected 2020 LOS under proposed designation (calculate anticipated number of trips and distribution on roadway network, and identify resulting changes to the projected LOS);*
- c. For the five-year horizon, identify the projected roadway conditions (volumes and levels of service) on the roads within the 3-mile study area with the programmed improvements in place, with and without the proposed development project. A*

methodology meeting with DOT staff prior to submittal is required to reach agreement on the projection methodology;

- d. Identify the additional improvements needed on the network beyond those programmed in the five-year horizon due to the development proposal.*
- 2. Provide an existing and future conditions analysis for:*
 - a. Sanitary Sewer*
 - b. Potable Water*
 - c. Surface Water/Drainage Basins*
 - d. Parks, Recreation, and Open Space.*

Analysis should include (but is not limited to) the following:

- Franchise Area, Basin, or District in which the property is located;*
 - Current LOS, and LOS standard of facilities serving the site;*
 - Projected 2020 LOS under existing designation;*
 - Projected 2020 LOS under proposed designation;*
 - Improvements/expansions currently programmed in 5 year CIP, 6-10 year CIP, and long range improvements; and*
 - Anticipated revisions to the Community Facilities and Services Element and/or Capital Improvements Element (state if these revisions are included in this amendment).*
- 3. Provide a letter from the appropriate agency determining the adequacy/provision of existing/proposed support facilities, including:*
 - a. Fire protection with adequate response times;*
 - b. Emergency medical service (EMS) provisions;*
 - c. Law enforcement;*
 - c. Solid Waste;*
 - d. Mass Transit; and*
 - e. Schools.*

In reference to above, the applicant should supply the responding agency with the information from Section's II and III for their evaluation. This application should include the applicant's correspondence to the responding agency.

C. Environmental Impacts

Provide an overall analysis of the character of the subject property and surrounding properties, and assess the site's suitability for the proposed use upon the following:

- 1. A map of the Plant Communities as defined by the Florida Land Use Cover and Classification system (FLUCCS).*
- 2. A map and description of the soils found on the property (identify the source of the information).*

3. *A topographic map with property boundaries and 100-year flood prone areas indicated (as identified by FEMA).*
4. *A map delineating wetlands, aquifer recharge areas, and rare & unique uplands.*
5. *A table of plant communities by FLUCCS with the potential to contain species (plant and animal) listed by federal, state or local agencies as endangered, threatened or species of special concern. The table must include the listed species by FLUCCS and the species status (same as FLUCCS map).*

D. Impacts on Historic Resources

List all historic resources (including structure, districts, and/or archeologically sensitive areas) and provide an analysis of the proposed change's impact on these resources. The following should be included with the analysis:

1. *A map of any historic districts and/or sites, listed on the Florida Master Site File, which are located on the subject property or adjacent properties.*
2. *A map showing the subject property location on the archeological sensitivity map for Lee County.*

E. Internal Consistency with the Lee Plan

1. *Discuss how the proposal affects established Lee County population projections, Table 1(b) (Planning Community Year 2020 Allocations), and the total population capacity of the Lee Plan Future Land Use Map.*
2. *List all goals and objectives of the Lee Plan that are affected by the proposed amendment. This analysis should include an evaluation of all relevant policies under each goal and objective.*
3. *Describe how the proposal affects adjacent local governments and their comprehensive plans.*
4. *List State Policy Plan and Regional Policy Plan goals and policies which are relevant to this plan amendment.*

F. Additional Requirements for Specific Future Land Use Amendments

1. *Requests involving Industrial and/or categories targeted by the Lee Plan as employment centers (to or from)*
 - a. *State whether the site is accessible to arterial roadways, rail lines, and cargo airport terminals,*
 - b. *Provide data and analysis required by Policy 2.4.4,*
 - c. *The affect of the proposed change on county's industrial employment goal specifically policy 7.1.4.*

2. *Requests moving lands from a Non-Urban Area to a Future Urban Area*

a. Demonstrate why the proposed change does not constitute Urban Sprawl. Indicators of sprawl may include, but are not limited to: low-intensity, low-density, or single-use development; 'leap-frog' type development; radial, strip, isolated or ribbon pattern type development; a failure to protect or conserve natural resources or agricultural land; limited accessibility; the loss of large amounts of functional open space; and the installation of costly and duplicative infrastructure when opportunities for infill and redevelopment exist.

3. *Requests involving lands in critical areas for future water supply must be evaluated based on policy 2.4.2.*

4. *Requests moving lands from Density Reduction/Groundwater Resource must fully address Policy 2.4.3 of the Lee Plan Future Land Use Element.*

G. Justify the proposed amendment based upon sound planning principles. Be sure to support all conclusions made in this justification with adequate data and analysis.

Collier County Growth Management Plan Amendment Process

B. The procedure to amend the Collier County Growth Management Plan or one of its elements is as follows:

1. A pre-application conference shall occur between the petitioner, the Community Development and Environmental Services Division and other appropriate County staff to ensure that the procedure set out herein is understood and adhered to.

2. Staff shall perform an initial review of the proposed amendment application to determine whether additional information is necessary to enable staff to conduct a formal review and whether other amendments of the Growth Management Plan will be necessary to preserve the internal consistency of the Plan. Within 30 calendar days following the filing deadline, the staff shall notify the petitioner in writing, that:

(a) The staff has determined that the petition is adequate for formal review; or

(b) The petition is inadequate for formal review and the notice shall set forth in detail the additional information deemed necessary for formal review of the petition.

3. If the application is deemed insufficient, the petitioner shall have 30 calendar days from the date of receipt of staff's letter of insufficiency to supplement the application in response to the initial review. A second 30-day time period, to respond to insufficiency, may be requested by the petitioner.

4. County staff shall review the application and may consult with other County Departments or agencies as it deems necessary to evaluate the proposed amendment and shall prepare a report with a preliminary recommendation.

5. The Collier County Planning Commission (CCPC), designated as the Local Planning Agency, shall hold an advertised public hearing with due public notice as defined by Section 163.3174, Florida Statutes, during which staff will present their review and make a preliminary recommendation to the CCPC. All interested parties may appear and be heard. Written comments of the general public filed with the Community Development and Environmental Services Division will be considered at the public hearing. Following the CCPC public hearing, the proposed amendment shall be forwarded to the BCC with the recommendation of the CCPC.

6. After the CCPC public hearing on such amendments have been held, the BCC shall hold an advertised public hearing on the proposed amendment during which the staff review and preliminary recommendation and any recommendation made by the CCPC shall be presented. The public hearing shall be held on a weekday approximately 7 days after the first advertisement is published. The intention of the BCC to hold and advertise a second public hearing to consider the adoption of the proposed amendment shall be announced. All interested parties may appear and or be heard. Written comments filed with the Community Development and Environmental Services Division will be considered at the public hearing. Following the BCC public hearing, the BCC will transmit the appropriate number of copies of the proposed amendment to the Department of Community Affairs within ten (10) working days.

7. Upon receipt of the proposed Growth Management Plan amendment, the Department of Community Affairs, the Regional Planning Council and other government agencies will review the amendment pursuant to Section 163.3184, Florida Statutes. The Department of Community Affairs shall transmit in writing its comments to the local government along with any objections and any recommendations for modifications.

8. Within 60 days of receipt of the review comments from the Department of Community Affairs, the CCPC shall hold a public hearing to make recommendations to the BCC regarding the adoption of the amendment. The BCC shall hold its second public hearing regarding the proposed amendments during which the final staff review and recommendation, CCPC recommendation, State and Regional review comments and public comment will be presented. The public hearing shall be held on a weekday approximately 5 days after the advertisement is published. The BCC shall then adopt, adopt with modifications or deny the proposed amendments. Adoption of an amendment to the Growth Management Plan must be by Ordinance and shall require four affirmative votes of the Board of County Commissioners.

9. The adopted amendments to the Growth Management Plan will be transmitted to the Department of Community Affairs within ten (10) working days after adoption. Adopted plan amendments, except for Small Scale Amendments, shall not become effective until the Department of Community Affairs issues a final order determining the adopted amendment to be "in compliance", or until the Administration Commission issues a final order determining the adopted amendment to be in compliance in accordance with Subsection 163.3184(10), Florida Statutes. The Department's notice of intent to find an amendment in compliance shall become an issued final order determining the adopted amendment to be in compliance if no petition challenging the amendment is filed with the Department within 21 days of the date of publication of the notice of intent. Small Scale Amendments shall not become effective until 31 days after

adoption. If challenged within 30 days after adoption, this Small Scale Amendment shall not become effective until the State Land Planning Agency or the Administration Commission, respectively, issues a final order determining the adopted Small Scale Development Amendment is in compliance.

Information to be included in the Application:

General Information Requirements

9J-5.005 General Requirements.

(a) Each comprehensive plan shall include the content for all elements as require y law and this chapter; however, related elements may be combined.

(b) If the local government chooses to combine elements, it shall clearly indicate where in the comprehensive plan or support documents all statutory requirements of Sections 163.3177 and 163.3178, F.S., a the requirements of this chapter are met. The comprehensive plan shall contain an explanation of such combinations.

(c) The comprehensive plan shall consist of those items listed below in this paragraph. All other documentation may be considered as support documents. Support documents do not have to be ado d unless the local government desires to adopt all or part of the support documents as part of the comprehensive plan. All back ground data, studies, surveys, analyses and inventory maps not adopted as part of the comprehensive plan shall be available for public inspection while the comprehensive plan is being considered for adoption and while it is in effect. Unless a local government desires to include more, the adopted comprehensive plan shall consist of:

- 1. Goals, objectives, and policies;*
- 2. Requirements for capital improvements implementation;*
- 3. Procedures for monitoring and evaluation of the local pi;*
- 4. The countrywide marina-siting plan for participating I al governments in the coastal area;*
- 5. Required maps showing future conditions, including future land use map or map series;*
- 6. A copy of the local comprehensive plan adoption Ordinance at such time as the plan is adopted; and*
- 7. Intergovernmental coordination processes.*

(d) The comprehensive plan format shall include:

- 1. A table of contents;*
- 2. Numbered pages;*
- 3. Element headings;*
- 4. Section headings within elements;*
- 5. A list of included tables, maps, and figures;*
- 6. Titles and sources for all included tables, maps, and figures; 7. A preparation date; and 8. Name of the preparer.*

(e) All maps included in the comprehensive plan shall include major natural and man-made

geographic features, city, county, and state lines, when applicable; and shall contain a legend indicating a north arrow, map scale, and date.

(2) Data and Analyses Requirements.

(a) All goals, objectives, policies, standards, findings and conclusions within the comprehensive plan and its support documents, and within plan amendments and their support documents, shall be based upon relevant and appropriate data and the analyses applicable to each element. Data or summaries thereof shall not be subject to the compliance review process. The Department will review each comprehensive plan for the purpose of determining whether the plan is based on the data and analyses described in this chapter and whether the data were collected and applied in a professionally acceptable manner. All tables, charts, graphs, maps, figures and data sources, and their limitations, shall be clearly described where such data occur in the above documents. Local governments are encouraged to use graphics and other techniques for making support information more readily useable by the public.

(b) This chapter shall not be construed to require original data collection by local government; however, local governments are encouraged to utilize any original data necessary to update or refine the local government comprehensive plan data base so long as methodologies are professionally accepted.

(c) Data are to be taken from professionally accepted existing sources, such as the United States Census, State Data Center, State University System of Florida, regional planning councils, water management districts, or existing technical studies. The data used shall be the best available existing data, unless the local government desires original data or special studies. Where data augmentation, updates, or special studies or surveys are deemed necessary by local government, appropriate methodologies shall be clearly described or referenced and shall meet professionally accepted standards for such methodologies. Among the sources available to local governments are those identified in "The Guide to Local Comprehensive Planning Data Sources" published by the Department in 1989. Among the sources of data for preliminary identification of wetland locations are the National Wetland Inventory Maps prepared by the U.S. Fish and Wildlife Service.

(d) Primary data sources such as United States Census reports, other government data documents, local computerized data, and original map sheets used to compile required maps need not be printed in their entirety within either the support documents or the comprehensive plan. Summaries of support documents shall be submitted to the Department along with the comprehensive plan at the time of compliance review to aid in the Department's determination of compliance and consistency. As a local alternative to providing data and analyses summaries, complete data and analyses sufficient to support the comprehensive plan may be submitted to the Department at the time of compliance review. The Department may require submission of the complete or more detailed data or analyses during its compliance review if, in the opinion of the Department, the summaries are insufficient to determine compliance or consistency of the plan.

(e) The comprehensive plan shall be based on resident and seasonal population estimates and

projections. Resident and seasonal population estimates and projections shall be either those provided by the University of Florida, Bureau of Economic and Business Research, those provided by the Executive Office of the Governor, or shall be generated by the local government. If the local government chooses to base its plan on the figures provided by the University of Florida or the Executive Office of the Governor, medium range projections should be utilized. If the local government chooses to base its plan on either low or high range projections provided by the University of Florida or the Executive Office of the Governor, a detailed description of the rationale for such-a choice shall be included with such projections.

1. If the local government chooses to prepare its own estimates and projections, it shall submit estimates and projections and a description of the methodologies utilized to generate the projections and estimates to the Department with its plan when the plan is due for compliance review unless it has submitted them for advance review. If a local government chooses to prepare its own resident and seasonal population estimates and projections, it may submit them and a description of the methodology utilized to prepare them to the Department prior to the time of compliance review. The Department may request additional information regarding the methodology utilized to prepare the estimates and projections.

2. The Department will evaluate the application of the methodology utilized by a local government in preparing its own population estimates and projections and determine whether the particular methodology is professionally accepted. The Department shall provide its findings to the local government within sixty days. In addition, the Department shall make available, - upon request, beginning on December 1, 1986, examples of methodologies for resident and seasonal population estimates and projections that are deemed by the Department to be professionally acceptable. The Department shall be guided by the Executive Office of the Governor, in particular the State Data Center, in its review of any population estimates, projections, or methodologies proposed by local governments.

(f) Local governments may submit textual portions of the proposed or adopted comprehensive plan or plan amendment, or their support documents, in the form of electronic processing storage media. A local government wishing to do this must first verify with the Department that the programs necessary to access the media are available to the Department and other agencies and, if so, then send one hard copy and clearly labeled storage media copies for distribution to external agencies.

(g) A local government may include, as part of its adopted plan, documents adopted by reference but not incorporated verbatim into the plan. The adoption by reference must identify the title and author of the document and indicate clearly what provisions and edition of the document is being adopted. The adoption by reference may not include future amendments to the document because this would violate the statutory procedure for plan amendments and frustrate public participation on those amendments. A local government may include a provision in its plan stating that all documents adopted by reference are as they existed on a date certain. Documents adopted by reference that are revised subsequent to plan adoption will need to have their reference updated within the plan through

the amendment process. Unless documents adopted by reference comply with paragraph 9J-5.005(2)(g), F.A.C., or are in the F.S., the F.A.C., or the Code of Federal Regulations, copies or summaries of the documents shall be submitted as support documents for the adopted portions of the plan amendment.

Franklin County

A. Application for development approval for development listed a Section 301.03 shall be made on forms provided by the planning department and shall be submitted to the County Planner at least 14 days prior to the next Planning and Zoning Commission meeting. Development shall conform to all applicable local, state, and federal regulations.

B. The County Planner shall review the application and accompanying materials for compliance with this ordinance, the comprehensive plan, and other applicable land development regulations. He may request the assistance of the County Engineer, the Building Official, the Public Health Official, or other local and state official in conducting the review. The County Planner shall then prepare a report and recommendation for action to the Planning and Zoning Commission for consideration at the next regular meeting. However, all commercial development shall be submitted to HRS for review and approval.

C. The Commission shall study the application for development approval and the report of the County Planner, taking into consideration the requirements of this ordinance, the comprehensive plan, and other applicable land development regulations. The Commission shall recommend to the Board of County Commissioners that the application for development approval be approved, be approved with conditions, or be disapproved.

D. After action by the Commission, the County Planner shall place the application for development approval on the next regularly scheduled Board agenda. The report of the County Planner and the recommendation of the Commission shall be forwarded for the Board's consideration. The Board, after reviewing the material presented, shall by motion approve, approve with conditions, or disapprove the application for development approval. Approval shall constitute authorization for the developer to apply to the County Planner and Building Official for issuance of a development permit. The Building Official will actually issue the permit.

E. After the Board's approval, the developer may apply for a development permit. When required by the Building Official, two sets of building plans shall be submitted. The building plans shall consist of specifications and drawings to scale of sufficient clarity and detail to indicate the nature and character of the work. When required by the Standard Building Code, drawings, specifications, and accompanying data shall be prepared and sealed by an architect or engineer legally registered under the laws of Florida. The Building Official shall review the building plans for conformance with the conditions of the Board's approval and applicable building codes.

F. A development permit shall be issued by the Building Official and County Planner upon the Board's approval of the application for development approval, and when building plans are required, upon the Building Official's certification that the building plans are consistent with the condition of the Board's approval and applicable building codes. Both sets of plans shall be stamped, signed, and dated by the Building Official. One set shall be given to the developer along with the development permit. The developer shall retain the permitted drawings at the site of work and they shall be open to inspection by the Building Official or his authorized representative.

Information to be included in the Application:

1. *Location map*
2. *Legal survey, prepared, signed, and sealed by a Florida registered land surveyor, indicating legal description and area to the nearest one-tenth of an acre.*
3. *Topographic map with one-foot contour intervals. The topographic map with one-foot contour intervals. The topographic map may be combined with the survey.*
4. *Site plan, drawn to appropriate scale, showing the location, dimensions, and intended use of all existing and proposed development in detail sufficient enough to allow an evaluation of compliance with applicable land development regulations. The site plan shall show: wetlands and flood prone areas, all structures, their setbacks and height; parking; streets; means of ingress and egress; potable water and wastewater disposal facilities; fences and walls; signs; sidewalks; and number of dwelling units for residential development; square footage for commercial office and industrial development; number of rooms for hotels/motels, number of employees, students, or seats for other development, as appropriate; other information as may be required by the County Planner.*
5. *Storm water Management Plan prepared in compliance with Section 465 of this ordinance. Before a building permit is issued which requires a storm water facility the property owner shall sign a release allowing the County Engineer the authority to enter private property to inspect the facility. It shall be the owner's responsibility to maintain the facility in proper condition.*
6. *Wastewater disposal permit consisting of either (a) a current onsite sewage disposal construction permit or current inspection certificate of an existing system from the HRS Franklin County Public Health Unit or the Department of Environmental Regulation, or (b) a letter from the appropriate water & Sewer district stating that central wastewater treatment is available.*
7. *When applicable, permits from state and federal agencies including DER and Army Corps of Engineers for dredge and fill, from DER for storm water management, DOT for access to state highways and for storm water connections to state highways, and from DNR for construction seaward of Coastal Construction Control Line.*

The City of Apalachicola Development Review and Comprehensive Plan Amendment Process

Development Review Process:

1. Applicant Submits Application
2. Building Official review application to make sure all information is present. A copy is sent to the planning and zoning board
3. The Planning and Zoning board looks at properties and meets to make a decision as to whether they approve or not. Those not approved can go before the board of adjustments for an appeal.

Comprehensive Plan Amendment Process:

Apalachicola's Comprehensive Plan Amendments following the process outlined in Senate Bill 360. All comprehensive plan amendments are contracted out to a private consultant within the county. There is not pre-application process.

Appendix G – Summaries of the Literature on Problem-Solving and Decision-Making

How Do Public Officials Use Environmental, Economic, Engineering, Stakeholder And Other Input In Their Decision Processes

Purpose

The review of needs assessments and other program materials highlighted the importance of creating new training formats and ways of interacting with elected officials. There were recommendations to take a systems approach, focusing on impacts and outcomes, including legal, fiscal, economic, social and political as well as environmental. The review of the Wells, Maine NERR focused on the use of cultural models and emphasized the importance of framing decisions as problems to be solved rather than battles to be won. For example, everyone can work together to balance environmental and economic needs rather than seeing the situation as a battle between developers and environmentalists. Coastal Training Programs already position themselves as neutral purveyors of information and potentially as facilitators of stakeholders with differing views.

There is a small but growing body of literature on public decision-making. Broad topics include how to integrate science and stakeholder input, manage complexity, involve different perspectives, seek consensus and resolve conflicts. A sample of books and materials reviewed include: Adaptive Governance and Water Conflict [in Florida] by John T. Scholz and Bruce Stiftel, editors, Value-Focused Thinking by Ralph Keeney, Smart Choices by John Hammond, et. al., Creative Problem Solving by Arthur Van Gundy, EPA Constructive Engagement Resource Guide and others. **Unedited** summaries of these and other sources are included in this Appendix.

The following is a generalized process that incorporates elements of a number of these sources.

- Define the challenge or problem
 - Clarify values or objectives that may be impacted from different perspectives
 - Gather facts needed for understanding
 - Consider related decisions and decision makers
- Generate possible solutions
 - Document what has worked elsewhere
 - Create innovative alternatives
- Seek objective, consensus solutions
 - Assess the consequences of options on values/objectives (build a table)
 - Negotiate trade-offs
 - Account for uncertainty and risk tolerance
 - Consider impacts on the future
 - Make some decisions now and defer others until there is better information

The decision making model above is helpful in working with comprehensive plan amendments, development reviews and other standardized decision process, but may be most appropriate for complex or unclear issues facing a local government. These often require extensive staff/expert analysis and may involve advisory groups, task forces and public workshops or hearings. The

Coastal Training Programs can provide technical support for these types of processes or they could take a greater leadership role as does the Coastal Training Program in Maine.

Methodology

This section of the literature review was conducted by Bassam Awad, a doctoral student at Florida State University. More than one method was used to achieve the objectives of this review. There were notes from an interview by Dr. Taylor with Bruce Stiftel, a coauthor of *Adaptive Governance and Water Conflict*) and several interviews with Dr. Tom Taylor, Associate Director of the Conflict Resolution Consortium. These interviews served to guide and enrich the work done here.

Several references have been used that incorporate divergent decision models, even though the main lines in the decision-making processes are similar. The decision-making models briefed include collaborative problem solving and collaborative governance, creative problem solving, constructive problem solving, the smart choices model, and value-based thinking. The references for all these models are listed in the bibliography.

Collaborative Problem Solving and Collaborative Governance¹

Watershed management is a human activity with deep roots. And watershed health as a primary focus for watershed management is of more recent origin. The objective of managing for watershed health is to assure that the use and modification of water resources and land based activities like roads and highways *does not undermine the capacity of the waters*.

The main thing here is that the collaborative problem solving is a methodology more than an approach.

The NPCC report of 2002 has listed 10 reasons as to why states should support watershed collaborations. I brief them here:

- 1- Collaboration is a successful way to address complex sets of issues.
- 2- Collaboration helps leverage scarce resources.
- 3- Collaboration reduces conflict and litigation.
- 4- Collaborations promote innovation and integration of state agency programs.
- 5- Collaboration can turn apparently inflexible federal or state mandates into opportunities.
- 6- Significant, measurable watershed improvements can be achieved by collaborations.
- 7- Collaborations can integrate economic, environmental and community objectives.
- 8- Collaborations do not shy away from controversial topics.
- 9- Watershed collaborations produce direct benefits to state agency programs and goals.
- 10- Collaborations provide an alternative form of governance for conflicts that do not lend themselves to traditional governmental approaches.

The report also includes a set of 12 lessons learned (what states can do to lead to success). This set highlights the importance of problem solving on a collaborative basis. However, this kind of problem solving methodology is not easily accomplished and faces several obstacles. These are:

- 1- Successful watershed collaborations take time and energy.
- 2- Failure to include relevant stakeholders can scuttle even the best process.
- 3- Some circumstances are not ripe for collaboration, even if parties appear to be willing.
- 4- Collaborations can be messy, even though most of them manage to pull off something.
- 5- Collaborative agreements may be constrained by existing laws and regulations.
- 6- Resource limitations may be a major obstacle for some watershed collaborative process.
- 7- Scale is critical; choosing the wrong one way preclude agreement or lead to unsatisfactory results.
- 8- Coordination across agencies, programs, and different professions can be a major challenge.
- 9- Many key actions for watershed health ultimately require actions by local planning authorities.
- 10- Overlapping agency programs, lack of integration of programs at watershed level, unnecessary red tape, and confusing and uncoordinated grant, technical assistance, and procedures can deter or frustrate watershed partnerships.

The report also talks about recommendations for governors and other state leaders that were based on a number of reports and studies. It might be beneficial to list down these recommendations:

- 1- Governors, their chiefs of staff, agency heads, and other key state players should treat collaboration as a significant tool to address complex problems such as watershed issues, and as a complement to traditional problem solving techniques like litigation, regulation, and investment.
- 2- Governors can use their convening authority to bring all essential players to the table, including some of the hard-to-get participants like agricultural interests, developers, some interest groups, and financial institutions.
- 3- State leaders should encourage agency field staff to participate in local/regional watershed collaborations and empower them to reach and implement agreements with local groups.
- 4- Governors and agency heads should ask for periodic progress reports on the use of collaboration in their agencies and programs.
- 5- Governors and agency leaders should create new opportunities for demonstration projects in selected watersheds, especially where some early successes are likely.
- 6- States should develop policy statements or executive orders describing expectations and providing guidance on best practices for collaboration in watersheds, including: When collaboration is appropriate and when it is not; How to achieve balance between protecting or furthering state interests and reaching necessary compromises with the group; Restructuring or reorienting programs along watershed lines, where appropriate; Developing a strategic plan for watershed management; Assuring that outcomes of collaboration will be better than those achieved by traditional tools, and demonstrating to potential critics that there will be no backsliding in environmental, economic, or social results.
- 7- States should create or expand awards or other recognition for successful watershed collaborations both within and outside state government.
- 8- States should bring together business, local government, non-profit, and other leaders to encourage their colleagues to participate open-mindedly in collaborations.

- 9- When watershed collaborations are working toward agreement, the state should, where possible, encourage participants to continue to use the collaborative process.
- 10- States should look for opportunities to expand existing watershed collaborations to encompass additional economic or quality of life issues where that will help ensure success.

Talking about Collaborative Problem solving leads to another related issue, which is the collaborative governance. Next.

Collaborative Governance²

Leaders engaging with all sectors—public, private, non-profit, citizens, and others—to develop effective, lasting solutions to public problems that go beyond what any sector could achieve on its own.

What results does the collaborative governance produce? The best public solutions come from people working together on issues. Collaborative governance takes as its starting point the idea that working together creates more lasting, effective solutions.

- Lasting—Solutions developed through collaborative governance won't simply be undone in the next year or legislative session.
- Effective—The collaborative governance approach ensures that the realities of the situation are considered and discussed; decisions are not made in a vacuum.
- More buy-in—From the outset, all with a stake are involved in authentic ways; all have a role in the final agreement.

The need for the collaborative governance is justified by four main reasons. First, collaborative governance help accelerate change. Second, the overlapping of institutions and jurisdictions. Third, the increased complexity of the real world. Fourth, the need for integrating policies and resources.

"Governance" is the process by which public ends and means are identified, agreed upon, and pursued. This is different than "government," which relates to the specific jurisdiction in which authority is exercised. "Governance" is a broader term and encompasses both formal and informal systems of relationships and networks for decision-making and problem solving.

Collaborative governance requires three elements:

1. Sponsor- an agency, foundation, civic organization, public-private coalition, etc. to initiate and provide support
2. Convener/Leader- a governor, legislator, local official, respected civic leader, etc. with power to bring diverse people together to work on common problems
3. Neutral Forum- an impartial organization or venue, etc. to provide and ensure skilled process management

The system integrates the principles and network to assure an effective collaborative governance process:

1. **Sponsors identify** and raise an issue
2. **Assessment** is made on the feasibility for collaboration and who needs to be involved
3. **Leader(s) convene** all needed participants
4. **Participants adopt** this framework for addressing the issue
5. **Conveners and participants** frame (or reframe) the issue for deliberation
6. **Neutral forum/facilitator designs** and **conducts** a process to negotiate interests and integrate resources
7. **Written agreement** establishes accountability
8. **Sponsors** identify and raise an issue or opportunity that calls for a collaborative response

This collaborative governance system can work anywhere as long as several key principles are adhered to: transparency; equity and inclusiveness; effectiveness and efficiency; responsiveness; accountability; forum neutrality; and consensus-based decision making.

Creative Problem Solving³

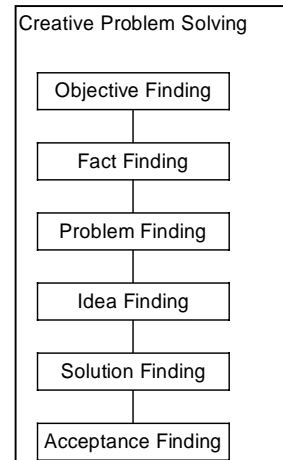
The use of this type of this decision making process is most appropriate for in ill-structured problems.⁴ Before describing the mechanism of CPS, it may be beneficial to talk a little bit about the types of problems. The ill-structured problems “must be dealt with using custom-made, nonroutine solutions. For this type of problems, you must invent a solution and hope that it will be successful. By comparison, ready-made solutions almost always will guarantee success for the well structured problems.” Between the ill and well-structured problems comes the semi-structured problems, which may combine custom-made, ready-made, or mix of both solutions.

However, it is important here to say that the decision on whether a given problem is of some type is *subjective and relative*. *For this familiarity with the various components and dimensions of the problem is critical.* (Pp2-3).

There are 6 stages for creative problem solving as charted.

Comparing CPS to, say, the smart choices model, the third stage here is the first one there.

- 1- **Objective finding:** The awareness and recognition various concerns, challenges and opportunities. This stage will help clarify the several potential starting points and hence selecting one primary objective to focus on.
- 2- **Fact-finding:** Its intent is increasing the understanding of the objective. Diverse information should be collected about the opportunities and challenges, which will help explore the features and the dimensions of the objective, some information will be relevant and some won't. The analysis of the information will help in setting up or defining the problem.
- 3- **Problem finding:** The way to this stage is paved by the previous two steps, the precise objective finding and clear finding of fact(s) will definitely have its impact here. And since the problems kinds under this strategy won't exceed the semi-structured problems. Then, it will be difficult to find a problem that in part depends on how successful and precise were the first two stages. And the problem will, of course, have many solutions, and will hence require a decision making process.
- 4- **Idea Finding:** You can not begin work in this stage without *clearly understanding the general problem situation*. Start with generating as many solutions to this problem as you can. This stage is then concluded by narrowing the list and selecting those that have the highest potential with solving the problem. Brainstorming is a vital tool for idea finding.
- 5- **Solution Finding:** The ideas *or solutions* selected in the previous stage are to be set against a list of criteria for evaluating the ideas. By the end of this stage it should be possible to *select one or more solutions that are believed to highest probability of resolving the problem*.
- 6- **Acceptance Finding:** The acceptance of the solution should begin from the same policy maker who got to that one. It is important to stress here that if the decision maker is not a stakeholder in a given issues he most won't care about the success of any solution to deal with a given problem. However, this situation is improbable. The end result of this stage is setting an *action plan*.



However, the CPS has requirements in order for it to be successful. As an extension on CPS there are some exercises that help understand this issue.⁵

Constructive Problem Solving⁶

This problem-solving model as developed by Tom Taylor is a part of a conceptual framework prepared as a stage that lat the final stage in a conceptual framework for constructive negotiations, facilitation and mediation.

The constructive problem-solving model is the practical process that includes the considerations that are assumed to help guide negotiations. This three-stage model is based on cooperative methodology.

As the chart shows the most first sub-stage is **setting up an environment of mutual interests** as a step in building the foundation for the constructive process. After this, discussions and meetings may help the different parties, or *interest groups*, explore and determine the various issues and interests that are possible to be faced, or simply **definition of interests**. Which lay the ground to get to an agreement on the common issues that could be considered as a problem or problems in the point of view the various diverse parties.

The next stage is exploring the full range of options that are feasible to deal with the common problem. Again the **constructive cooperative** process prevails. There are three sub-stages in this second stage, **establishing a creative climate, identifying the options through brainstorming options and ideas**, and **formulating ideas into alternatives**.

Constructive Problem Solving

A. Build the Foundation

1. Establish a constructive climate
2. Explore issues and interests
3. Agree on a common problem

B. Explore the full range of options

1. Establish a creative climate
2. Brainstorm options and ideas
3. Shaping the alternatives

C. Seek Agreement

1. Evaluate options and alternatives
2. Seek consensus agreements
3. Assure an optimal, implementable

Smart Choices (Hammond et al.)⁷

This integrated approach of decision-making process offers a simple easy-to-follow process designed to improve the way of making decisions that can help attaining the goals.

The Chart below shows the five core steps in this process denoted as PrOACT:

- 1- **Identifying the problem(s)**: If the problem is not well defined, then we are in the wrong place to start, in this, the “medical” model shows: no “true” medication could be given without determining the “true” reason of the sickness. The way the problem is stated frames the decision. In other words, this initial step is important because mistakes might take you a way from the next steps in the decision making process. The creative statement of the problem may transform it into opportunity, and, hence, open the way for *attractive and useful new alternatives*.
- 2- **Specifying Objectives**: This is an important step and an *art* for it forms the basis for evaluating the alternatives. Also, once you specify your objectives, they will help you

determine what information to seek, and explain your choices to the others. More importantly, they determine the importance of a given decision and, hence, *how much time and effort* it deserves. The objectives must be “very” clearly specified, because “if you don’t know where you’re going, any route will get you there”? And this could happen because of devoting little time and effort on the task of specifying objectives, getting it right isn’t easy. The chart sets five sub steps to *master the art of identifying objectives*.

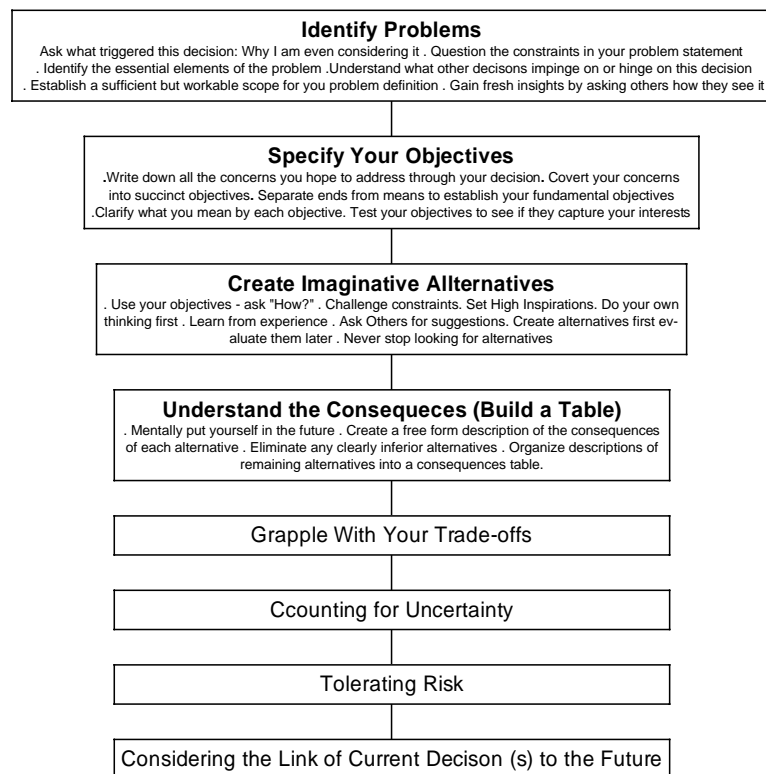
- 3- **Creating Imaginative Alternatives:** They are considered the raw materials of decision-making. They represent the range of potential choices you will have for pursuing your objectives. Again, the chart summarizes the *keys* to generating better alternatives.
- 4- **Understand the Consequences:** “Be sure you really understand the consequences of your alternatives before you make a choice. If you don’t, you surely will afterwards, and you may not be very happy with them. The consequences should be described clearly, like in a table.
- 5- **Tradeoffs:** This comes because no alternative will be absolutely preferable to other alternatives in all the ways. It must be taken into consideration that “decisions with multiple objectives cannot be resolved by focusing on any one objective. Think of 55 speed limits as it relates to saving lives, convenience, and state rights. In this stage you should look for the *dominated alternatives* and eliminate them. And then make tradeoffs using even swaps.

It is important, however, to note that even though these 5 steps constitute the core the

smart choices approach for decision process- per Hammond. These 5 steps are the core of this approach of smart choices and are *applicable virtually to any decision*. Considering another three factors, then the SC approach can analyze and resolve highly complicated decisions. These factors are uncertainty, risk tolerance and linked decisions. A description of these factors follows. These three factors “help clarify decisions in **volatile or evolving environment**. Some decisions won’t involve these elements, but many of ... most important decisions will.”

If you know the consequence of each alternative you have *before* making your decision, then the 5 steps above are a comprehensive process. But if you do not know the consequences, or know *after* deciding, as in water related decisions, the factors of uncertainty, risk tolerance, and linked decisions are further steps required to get to a comprehensive decision making process.

Decision-Making Process (Hammond et al.)



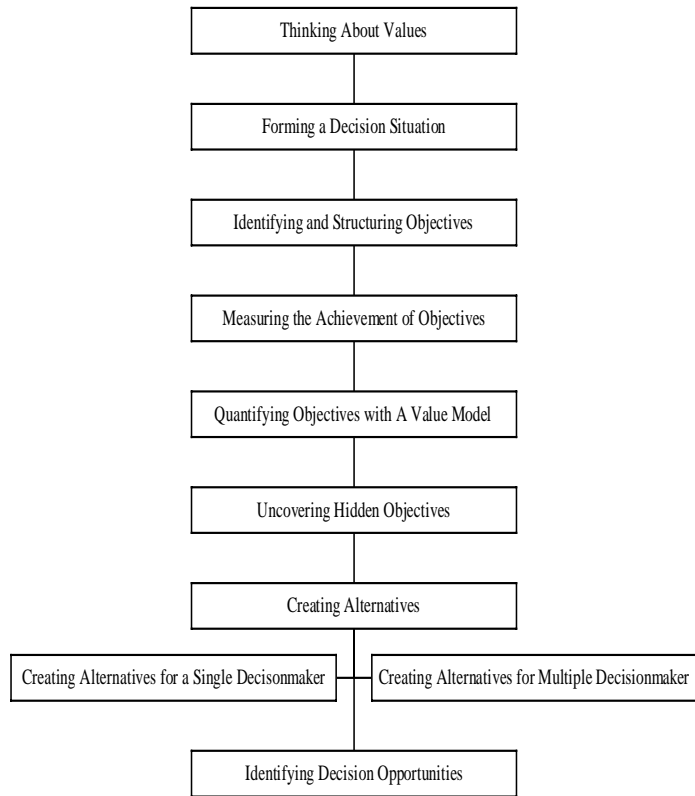
- 6- **Uncertainty:** The notion of uncertainty is also the notion of risk; the question that arises here is how could it be possible to “optimize” the consequences arising from uncertain world? To think of this, there should be some kind of acknowledging the existence of uncertainties. Uncertainties should be measured in outcomes, likelihood and impacts. It is important here to stress that the smart choice that entails the calculations of risks and their likelihoods won’t prevent the worst alternative to take place even it has minimal likelihood. *A conclusion follows; you can make a poor choice and get a good consequence. What to do? Well, the decision under risk possibilities should be judged by the quality of the decision making not the quality of the consequences. In this context, there will be a need to boil down the uncertainty into risk profiles.*⁸
- 7- **Risk Tolerance:** Assume that you specified the risk profiles related to uncertainties in the decision making process and after constructing that profile you compared them and eliminated all the poor choices. Then you get the best choice. This is the most probable event. But assume further that you did not get a unique best choice, but more than one choice. In this case you need to work with the risk tolerance. The evaluation of risk in any situation may be scientific but the decision to deal with risk may be subjective and involves a value judgment. And tolerance towards risk is vital in the decision making process for some may prefer the highly risky alternative and the other the lowest risky and these are obviously two different decisions. *The concept of risk management is used here, and this in turn involves 5 possible alternatives, risk sharing, risk reducing information, diversification, hedging, and insurance.*
- 8- **Linked decisions:** The decisions taken today might be necessarily or probably connected to future decisions. For this there is a need to plan and analyze the linked decisions. The decision maker should make smart linked decisions by planning a head. There are 6 steps in analyzing linked decisions: (1) understanding the basic decision problem, (2) identifying ways to reduce critical uncertainties, (3) identifying future decisions linked to the basic decision, (4) understanding the relationships in the linked decisions, (5) deciding what to do in the basic decision, and (6) treating later decisions as new decision problems.

Value-Based Thinking⁹

Values are what we care about, and they must be the driving force for our decisionmaking process. However, the decisionmaking process focus on selection amongst various alternatives. This model of decisionmaking suggests that the concentration be on values rather alternatives as is the case usually with all the previous models.

“Values are more fundamental to a decision problem than are alternatives. Just ask yourself why you should ever make the effort to choose an alternative rather than simply let what ever happens happen. The answer must be that the consequences of the alternatives may be different enough in terms of your values to warrant attention. Your reason for for interest in any decision problem is the desire to avoid undesirable consequences and to achieve the desirable ones. The relative desirability of consequences is a *concept based on values*. Hence, the **fundamental notion in decisionmaking should be values, not alternatives**. Alternatives are the means to achieve the more fundamental values.”

Value-Focused Thinking Model



The Chart above shows the various stages in the value-focused decision making model.

A Synthesis Model

No one can get to one conclusion regarding the best model that is to be used in the decision process. This is because of the general diversity between the models whether they are basic or integrated depends on the special circumstances of any given decision making process.

Putting in the Science

Introduction¹⁰

Usually the decisions on water issues was left to the resource managers and engineers but not disputed publicly. The users did not. I think that any policy procedures or changes in the management of water are not realizable by the ordinary citizens at all unless it includes an increase in their water bill. The rising demand for water has led to increased complexity and sophistication of problems faced because of the increased stakeholders.

This means that we need a scientific approach to deal with the problems arising from the use of this scarce economic resource. What I mean by this is the question as to who make the decision on the use of water; industry or agriculture; ordinary consumers or the resource managers. The elected officials also have something to do with the decision on the use water resources. Those elected officials has many dimensions in making decisions regarding the water issue, these decisions, I think, are based on random and ambiguous weights, they need to be systemized. How?, the answer is using the science and the best of it *in making the decision making process more systematic*.

Science intensive situations, as water ones, face many obstacles. Below is a list 23 Obstacles to Scientific Intensive Negotiations as identified by Adler et al. (2001) However, Hammond do classify them into three major clusters, they are:

- 1- The first set of rocks obstructs access to information, expertise, and the quantity and quality of existing data.
- 2- The rejection of scientific and technical information by *some* parties.
- 3- The incomparability of the scientific enterprise in its purest form with the practical demands of public decision-making.

The 23 obstacles are:

- 1- **Multiple Disciplines.** There are various specialized sciences involved in providing critical scientific and technical information but the conclusions do not converge to a logical policy choice.
- 2- **Access to Data.** There is good scientific or technical information available but some or all of the parties have trouble accessing it. They cannot quite articulate what they need to know, how to identify it, or whom to contact.
- 3- **Adequacy of Existing Data.** There is missing scientific or technical information that could be researched and brought to the table but the process of doing this needs to be organized and supported by adequate resources.
- 4- **Unclear Significance.** Scientific or technical information is brought to bear on a given topic but the significance of it is unknown or of marginal value, or there is no technique or methodology to evaluate or compare the information.

- 5- **Restricted Data.** Several parties have critical information that could help resolve the matter but the data is confidential or proprietary.
- 6- **Politicized Information.** There is salient scientific or technical information that could be brought to the table to enhance decision-making but people perceive the information as Skewed and overwhelmed by political spin and media hype.
- 7- **Lack of Expertise.** There is good scientific or technical information available and the parties think it could be relevant to their decision-making but some or all of them do not understand it.
- 8- **Inconclusive Data.** The scientific or technical information disputants are relying on is spotty, does not show strong cause and effect relationships and does not invite an obvious decision. Conclusions can be suggested or inferred about cumulative effects but there is no completely logical basis for policy.
- 9- **Purchased Information.** Credible scientific or technical information is available but all of it has been commissioned or produced by some of the parties and is therefore distrusted by the others.
- 10- **Uncertainty and Division among the Scientists.** Despite great amounts of advocacy, research, and applied studies, massive scientific and technical uncertainty remains. Peer reviewed studies are equivocal and the opinions of credible experts are deeply divided.
- 11- **Distrusted Science.** There is a fair amount of scientific and technical information available but the science itself is distrusted.
- 12- **Irrelevant Information.** Scientific and technical information exists and the parties know it exists but they choose not to examine it. They believe the information is irrelevant to reaching an agreement or there is no practical solution to the problems of conflicting interpretations.
- 13- **Data Overload.** There is too much data at hand, and the data is either unorganized, or the volume of data overwhelms parties as they attempt to sort through what is relevant, synthesize it, and apply it to the problem at hand.
- 14- **Theory Unsupported by Sufficient Research.** Predictive scientific theories have been postulated but little or no empirical research has been done. While differing sides in a dispute resolution or conflict management process preoccupy themselves with arguing conjectural positions, government agencies have a compelling need to regulate.
- 15- **Scientists Ahead of the Stakeholders.** Funds from a limited research budget are allocated by a government agency and studies are commissioned. Data are collected and analyzed. After the studies are completed, a stakeholder process is initiated.
- 16- **Information Not Yet Usable.** A time-sensitive problem needs to be resolved and all of the parties want to resolve it, but it requires specialized scientific information and/or new technological processes that are not fully developed and available.
- 17- **Poor Issue Framing.** There is either an incorrect, incomplete, or competing framing of the problem in a manner that excludes critical value questions that are central to some of the parties.
- 18- **Pseudo-Professional Posturing.** An expert attempts to dominate the presentation or interpretation of critical scientific or technical information but actually does not have expertise in that area.
- 19- **Shifting Conceptual Framework.** Data or technical information exists but the framework or paradigm for interpreting and understanding the meaning and relevance of the data is undergoing a significant knowledge shift.
- 20- **Unrealistic Expectations of Scientists.** Parties to a conflict assume that there is a technically correct solution to a problem that is causing great controversy. Once engaged,

scientists and technical experts come up with multiple answers, none of which are wholly satisfying to any of the parties.

- 21- **Outdated Data and Organizational Lag.** New research suggests that current standards could and should be changed. The agency responsible for undertaking such reviews is preoccupied with what they consider to be more important matters.
- 22- **Differential Tolerance for Complexity.** Some parties are able to tolerate a great deal of technical complexity and scientific ambiguity. Others are impatient with the process. The disconnect leads to irritation, quarreling, and persistent fights over the production of useful and usable information.
- 23- **Pseudo-Scientific Environmental Conflicts.** One or more of the parties to a conflict nests their issues in a contested scientific matter as a strategy or tactic for accomplishing other objectives. The core of the real dispute is about deeply held values.

Adaptive Management and Adaptive Governance¹¹

Adaptive Management

Adaptive management, also called Adaptive resource management (ARM), is an iterative process of optimal decision-making in the face of uncertainty, with an aim to reducing that uncertainty over time via system monitoring. In this way, decision-making simultaneously maximizes one or more resource objectives and, either passively or actively, accrues information needed to improve future management. Or a set of analytic and administrative tools that let managers utilize the experimental techniques of science for testing policy hypotheses during implementation. Policy then adapts to new knowledge about the natural system.

The key features of adaptive management are Iterative decision-making, Feedback between monitoring and decisions (learning), Explicit characterization of system uncertainty through multi-model inference and Bayesian inference.

How the adaptive management works with the resolution of the current water conflicts as a decision making process. Well, the Scholz and Stiffler states that AM is ill-suited to the resolution of the 2nd-order conflicts. And this because in water related conflicts means and goals are inseparable- contrary to the adaptive management requirements for successful application. Adaptive management relates to the issue of the challenge of the scientific learning which relates to uncertainty. In sum, the AM concentrate on the problems that are related to management of resources in situations of uncertainty about the natural system, or even with the absence of the adequate knowledge about the natural system.

“Adaptive management fits well with the popular view of democracy in which elected officials determine policy goals, and specialized authorities then resolve conflicts about means. But the new water conflicts generally belong to the class of wicked problems that do not fit this view.”

The need for adaptive management is, therefore, abolished as an independent strategy for resolving the 2nd-order conflicts (water problems). But, there is a need for it if it accepts dependence. I mean here that adaptive management is looked at as a challenge of 5 challenges, specified in under the definition of adaptive governance next, that needs resolving for adaptive governance process to go successful.

Adaptive Governance

Adaptive governance is a new generation of governance institutions for resolving collective action problems that occur between different types of resource users. The 2nd order **collective action conflicts** are conflicts that as decision by one authority impact other authorities and the users they govern. Compare this to the 1st order conflicts that the specialized authorities were created to manage. 2nd order conflicts tend to be geographically defined by an integrated natural system governed by multiple agencies.

Water conflicts are examples of **collective action problems**, and they are 2nd order conflicts. Why is that, because of the unexpected response from the natural system, this may lead to new stakeholders who are not used to the procedures and for this they challenge the existing policies and the established procedures. What to do?

If conflicts continue between and among different stakeholders, this will lead to an ambiguity in the system. Coordination will enhance the mutual gains. This implies, from an economic point of view that the current procedures or the new ones that lead to conflict and could return some mutual benefits is not *Pareto Optimal*.

There are five challenges to adaptive governance, they are:

1. Representation: The challenge here is in determining who should be represented in the new procedures and institutions, the resources available, the power authorized. The conflict here result in from the harms imposed from some persons to others. The question here is why the adaptive governance concerned about representation? Because the absence of representation will mean misrepresentation of interests, which pose a challenge from the represented interests. The representation issue is resolved through the identification, articulation, and aggregation of interests that is not easily resolved and subject to collective actions problems.
2. Process Design: the challenge here is to develop decision mechanisms that satisfy the groups involved in the process. Effective representation entails the existence of a good understanding of the preferences of the represented groups from a set of policy outcomes. The ability to translate these preferences into policy options, and resources and skills to gain approval of preferred policies.
3. Scientific Learning.¹²
4. Public Learning.
5. Problem Responsiveness.

Scientific Peer Review¹³

Peer review is an integral component of scientific research and publishing. It allows the scientific community to maintain quality control of research through the review of research proposals, journal manuscripts and other reports. Academic peer review, although far from perfect, is the best tool scientists have to ensure high standards for their professional work.

This idea has been translated into the policy arena through ‘**scientific peer review**’ — the review, by scientific experts, of in-house agency science or the body of science underlying management decisions. These types of reviews are critically important tools for policy makers. They allow experts from both inside and outside the federal government to provide technical advice and analysis, increasing public confidence in federal science, and ensuring that the best quality information is used in decision-making.

However, it is critical that scientific peer review programs be carefully designed to maintain objectivity, quality and thoroughness. While scientific peer review is an important tool for decision makers, a poorly designed process can do more harm than good. It is for this reason that we endorse the following list of important considerations for government scientific peer review of agency-produced science and the body of science underlying management decisions.

The first priority in choosing reviewers should be to engage the most competent scientists. Therefore, conflict of interest exclusions must be carefully designed to balance barring those with a direct conflict of interest and the reality of a finite pool of suitable reviewers. The key issue in selecting reviewers is whether they bring the necessary scientific knowledge and objectivity to reviewing the matter at hand.

Scientific peer review should be insulated from politics as much as possible. Oversight of scientific peer review should be vested in scientists and science managers within the agencies. This adds assurance that the composition of panels is not being unduly influenced by politics and constitutes a representative subset of the scientists most competent to review and assess the topic. The agencies must be trusted to perform the task of constituting and overseeing fair and independent scientific peer review efforts, without interference from political entities.

Even the best scientific peer review cannot give policy makers the ‘right’ answer. Scientific peer review can provide assurances that rigorous, transparent and respected methods were followed, that the data were reasonably interpreted, and that the stated conclusions logically follow from the results. However, often more than one interpretation of the data set can be made, and there may be no way to determine which interpretation is ‘best’. Where data are limited or other uncertainties abound, scientific peer review can point these problems out, but it cannot overcome them.

Scientific peer review must maintain programmatic flexibility. While guidelines can help to ensure that certain standards are met and maintained, an overly rigid process, particularly for scientific peer review of the body of science underlying policy decisions, will result in inefficient use of time and resources. It may be overly prescriptive to stipulate the number of reviewers, the questions they must answer, or the type of report they must produce for the broad range of agency scientific work.

All scientific peer review must be based upon an assumption of integrity. While commonsense measures can be taken to weed out direct conflicts of interest, an implementable system can never be fully cleared of all potential conflicts of interest. Instead, fair reviews are the product of professional standards of conduct that are a fundamental component of training in scientific research. Scientific peer review must ultimately rest on the presumed integrity of the reviewers.

Efforts to revise the process of peer review should acknowledge the differences in professional culture that often divide scientists, policy makers, and the public. The academic model of peer review calls on reviewers to be as critical as possible. This is done so that authors are able to make improvements where they can and so that the weaknesses of the work are understood and acknowledged. Thus, results from scientific peer review that highlight uncertainties, questions and alternative explanations do not mean that the science was not well done or that its findings are invalid. Science is inherently uncertain and there will always be unanswered questions and areas where more research is needed. However, acknowledging uncertainty should not be equated with an inability to draw conclusions; managers often must act without complete certainty. Scientific peer review, properly carried out by competent peer scientists, can reassure managers, decision makers, and the public that such difficult decisions are based on research that represents the current state of our scientific understanding.

Technical Advisory Committees (TAC)

Looking at examples related to the roles played by technical advisory committees reveal how important their role could be in helping the public officials in taking “the right” decision. For example, in our first case, the web link below show how specialized the knowledge of people involved in technical committees work. And how probably it will be difficult for public officials to understand the specified information that could be related to water issues, or, more specifically, the watershed management.

Case I: Raritan River Basin, Watershed Management, New Jersey¹⁴

The Technical Advisory Committee is formed by the Raritan Basin Council to provide detailed technical and scientific support and advice to the Council and the WMA Committees on a wide variety of issues. The membership is by invitation based on expertise, and new areas of expertise may be added as needed. Further, there may be more than one member per area of expertise. The TAC members choose the TAC Chair, who will also sit as a non-deciding member of the Raritan Basin Council. Please anticipate monthly TAC meetings for the first several months; we will then develop a meeting agenda based on the workload, sub-committee use, etc.

The Possible Roles of the technical advisory committees includes:

- 1- Serve as principle advisor to NJDEP and NJWSA staff and contractors regarding the development of surface water quality models (i.e., TMDL models) and their application in scenario development to meet targets established by the Raritan Basin Council (Council) and Watershed Management Area (WMA) Committees.

- 2- Assist the Council in identifying the highest priority watershed issues and the ways in which they are valid issues for watershed planning, using the methodology developed by the Issues Work Group, the Technical Reports and other information.
- 3- Assist the Council and WMA Committees in identifying the most important information from the Technical Reports and other sources for use in watershed management planning to address the highest priority issues.
- 4- Advise the Council and WMA Committees regarding the watershed issues that will require significant additional research to either determine the need for management or to identify appropriate technical management options.
- 5- Recommend scopes of work for such research.
- 6- As requested by the Council or by WMA Committees through the Council, identify options and recommend technical strategies to address high-priority issues. Identify legal, institutional, resource or other constraints to the use of those technical strategies.
- 7- Assist the Council in identifying technical and scientific information that will help the Council form policy recommendations that are justified by available information, including the use of surface water quality (TMDL) models to develop effective pollutant load allocations and implementation plans.

In discussion with the RBC, set a working calendar and timetable for expected responses to Council requests.

Case II: The Water Council in Atlanta, GA ¹⁵

The water council in Atlanta, GA is composed of three advisory committees.¹⁶ Technical advisory committee is one of them. It will be assembled as needed during plan development. This component may include an interagency committee of staff from agencies represented in the Georgia Water Council as well as issue-specific advisory committee(s). With a goal of minimizing the withdrawals. Also, the water conservation, efficiency and reuse. Another goal of the TAC is to maximize returns. The TAC studies and gives recommendations about issues such as interbasin transfer limits, septic systems, meeting instream/off-stream needs, instream flow, water supply reservoirs, aquifer storage and recovery and meet assimilation demands.

This is just a summary, to see details about the work of TAC, approach Georgia Water Coalition website. For example, A 14 pages document prepared by the TAC entitled *Georgia's Statewide Water Management Plan: The Need for Strategic Water Conservation and Reuse Mechanisms and Measures* reveals the kind of analysis undertaken by the TAC.¹⁷

Case III: Southeastern Wisconsin Regional Planning Commission ¹⁸

In its regional water quality management plan update, the Southeastern Wisconsin Regional Planning Commission has down listed information regarding the advisory committee structure and the Technical Advisory Committee. The committees form a most fundamental type of public involvement, with strong prospects for the planning program contributions to be of a broad and representative nature. Three types of advisory bodies are guiding the regional water quality management plan update, one of a technical nature, one to provide intergovernmental coordination and policy advice and assistance, and one citizen based.

The technical advisory committee is an integral part of the organization of the study, created by action of the Regional Planning Commission. The composition of this committee includes broad technical representation, including technical staffs, academia, business, agriculture, community and environmental organization representation, among others. The committee is designed to represent the entire study area. Included in its purview is a review of the draft planning report preparation and related technical work at important milestones. The committee also will be asked to review and provide advice on all important technical matters and decisions.

In addition to the technical committee, a Watershed Officials Forum has been organized to provide a basis for periodic briefings and to obtain feedback and input from the units and agencies of government on a watershed wide basis. This forum is one of the shared advisory bodies utilized by both the Commission and MMSD.

Case IV: Florida Department of Environmental Protection ¹⁹

Chapter 8 of the Florida's Source Water Submittal to EPA was about the public participation in water related issues.

Section 1428 (b) of the SDWA requires each state to make a maximum effort to encourage public participation in the development of a source water assessment plan. Public involvement is one of the most important aspects of the program because it: 1) increases public awareness, 2) provides opportunities for the public to comment and raise concerns, 3) builds a strong foundation for the program, 4) provides technical information for program elements, and 5) helps with ongoing protection measures. The Department consulted with the League of Women Voters of Florida and the Florida Department of Community Affairs to discuss an effective approach to public involvement. The Department provides (and will continue to provide) ample opportunity for varied interest groups to participate in the development of the SWAP program. The Department and the Department of Health have coordinated efforts to reach "at-risk" populations. To date, outreach results are incomplete. The Department will continue to contact and seek input from such populations.

The SWAP plan was developed through the efforts and cooperation of environmental professionals, public water supply owners, concerned business interests, and the general public. A conceptual plan was first developed under the direction and guidance of a steering committee, the SWAP Workgroup. The conceptual plan was then presented to a technical and a citizen's committee for comment and revision. Comments and direction were solicited from each committee as well as from individuals. The SWAP document will be reviewed by the advisory and technical committees as well as interested individuals. Additional meetings with the technical advisory committee and the public will be scheduled in the Spring 1999 and throughout the year as needed.

The Citizens and Technical Advisory Committee was formed to (1) provide scientific, technical, and general input to the conceptual plan, and (2) provide oversight and recommendations to the development of the draft document. A broad range of agencies and organizations along with tribal populations and the general public were invited to participate on this advisory committee. The members were encouraged to participate in the technical decision-making processes, provide ideas for each program component, and raise issues of concern from business and public interests.

A mailing list of those invited to participate on the Citizens and Technical Advisory Committee is provided in Appendix C. The letter soliciting their participation is provided in Appendix D. Those invited to participate included representatives of major water suppliers, municipal water utilities, private water companies, tribal populations, the United States and Florida Geological Surveys, the U.S. Forest Service, private environmental firms, local governments, Department of Elder Affairs, Department of Community Affairs, Department of Health, League of Cities, and Association of Counties.

A meeting of the Citizens and Technical Advisory Committee was held in Tampa, October 29, 1998. The meeting notice was published in the Florida Administrative Weekly. The audience was composed of technical experts including environmental scientists and local government and water supply representatives. The conceptual plan was presented to the group, followed by a question and answer session. Issues raised and subsequent answers from this meeting are presented in Appendix E. Key issues discussed in the meeting included aquifer vulnerability methodology, coordination efforts with Water Management Districts, connecting the program with the wellhead protection program, utilization of global positioning technology, definition of terms, threshold quantities, use of existing databases, public availability to results.

Citizens' Advisory Committees

Case I: Southeastern Wisconsin Regional Planning Commission

Citizens Advisory Council (CAC)

Another shared advisory body, the Citizens Advisory Council, has been formed in cooperation with the MMSD 2020 facilities planning program to actively involve private citizens, businesses, special interest groups, and industry representatives in the development of the planning studies. The Council functions as a representative body of concerned and diverse citizens. Materials pertaining to the CAC and interrelationships with other project committees can be viewed at the MMSD website

Case II: Sonoma County Agricultural Preservation and Open Space District Citizens Advisory Committee

The Citizens' Advisory Committee is a 17 - member committee comprised of representatives from various interest groups and incorporated cities within Sonoma County. Similar to the Open Space Authority, the Committee members are appointed by the Board of Directors. The Committee's role includes advising the District Board and staff on policy matters and making recommendations for proposed easement or land acquisitions. Subcommittees such as Acquisition and Stewardship may be formed for specific issues related to the District's program. The Citizens' Advisory Committee generally meets at the District office building at 5:30 pm on *the fourth Thursday of every other month*. **The Public is encouraged to attend meetings**. Please contact the District for specific dates and agendas.

Case III: The City of New Baltimore Citizens Advisory Committee

The purpose of the Citizens Advisory Committee is to provide essential citizen input to the City Council and Administration as a recognized component of the decision making process. The CAC is expected to perform in a positive and collaborative manner to gather information and formulate opinions, advice, non-binding recommendations and suggestions on governmental affairs and services affecting the City of New Baltimore and its citizens. The CAC acts only in an advisory capacity to the City Council and Administration. Other responsibilities include coordination of the annual Mayors Exchange Dinner and the selection of the Citizen and Business of the Year.

Scientific Study

Scientific method is a body of techniques for investigating phenomena and acquiring new knowledge, as well as for correcting and integrating previous knowledge. It is based on observable, empirical, measurable evidence, and subject to laws of reasoning. All this evidence is collectively called scientific evidence.

Deductive reasoning is reasoning in which the conclusion is *necessitated* by, or reached from, previously known facts. The premises: if the premises are true, the conclusion must be true. This is distinguished from abductive and inductive reasoning, where the premises may predict a high probability of the conclusion, but do not ensure that the conclusion is true.

How the deductive reasoning works? Somebody could say: "*Since it is raining, the street must be wet.*". However, there is a hidden argument in this statement: "*If it's raining then the street gets wet*". Using the premise "*If it's raining then the street gets wet*" you could argue that "*Since it's raining the street is wet*" but not "*the street is wet so it must be raining*". Or you could say: "*The street is not wet, so it's not raining*", but not "*It is not raining so the street is not wet*".

Inductive reasoning is the process of reasoning in which the premises of an argument support the conclusion but do not ensure it. It is used to ascribe properties or relations to types based on tokens (i.e., on one or a small number of observations or experiences); or to formulate laws based on limited observations of recurring phenomenal patterns. Induction is used, for example, in using specific propositions such as: This ice is cold. A billiard ball moves when struck with a cue. ...to infer general propositions such as: All ice is cold. There is no ice in the Sun. So, for every action, there is an equal and opposite reaction.

Experimental research designs are used for the controlled testing of causal processes. The general procedure is one or more independent variables are manipulated to determine their effect on a dependent variable. These designs can be used where: 1) There is time priority in a causal relationship (cause precedes effect), 2) There is consistency in a causal relationship (a cause will always lead to the same effect), and 3) The magnitude of the correlation is great. The most common applications of these designs in marketing research and experimental economics are test markets and purchase labs. The techniques are commonly used in other social sciences including sociology and psychology

Linking Science (Scientific Learning) and Public Learning

As we have stated in part 4.2 above, the public learning and scientific learning are two of five challenges in the adaptive governance process.

Before describing how to link science with Public learning it may be beneficial to define the public learning. The concept of public learning is related to another concept, which is the team learning. They are learning and growth oriented principles that are given emphasis within the learning organization.²⁰ **Public learning is the principle through which individuals are encouraged to openly learn and explore that which they do not know.**²¹

This issue relates to the *adaptive governance*, as it is a more *normative than positive*. *Normativeness versus Positiveness as theory does with practice*. Paul Sabatier tries to link the theoretical aspect of scientific learning as positive side of adaptive governance to the normative side of public learning.

The Advocacy Coalition Framework views policy changes over time as primarily the result of competition among advocacy coalitions within a policy **subsystem**, *such as Florida water supply policy*.

The advocacy coalition consists of interest group leaders, legislators, agency officials, researchers, and even journalists *who share a set of specific beliefs and engage in some degree with coordinated behavior in an effort to make governmental policy more consistent with that belief*.

The policy brokers mediate any conflict that may arise among the coalition. The AC models draws heavily from social psychology. All individuals and scientists are assumed to perceive the world through a set of preexisting beliefs, which bias the individuals to see some things and ignore others.

The adaptive governance contends that the 2nd-order resource management problems are in general more difficult to solve. There are two reasons for this as proposed by the AC framework. First, entirely new set of actors must interact and learn each other's constraints. Talking about Florida case, Sabatier comment on this reason: "In effect, Florida went from a water supply subsystem in which farmers and cities fought over supplies to a set of interacting subsystems; water supply, water quality, habitat and wildlife management. Second, the 2nd-order problems are more likely to involve coalitions with very different belief system.

Concluding on this AC framework, Sabatier states: "In sum, while the propositions supporting collaborative conflict resolution institutions may be initiatively appealing, the scientific analysis of those propositions is still in its infancy."

Obstacles to Consensus (Bacow and Wheeler)²²

"Working through conflicts like *water* that are related to the environment, natural resources, and public lands involves using a range of methods of alternative dispute resolution. Unlike traditional litigation, in which a judge or jury may impose a judgment or make a final determination, alternative methods of assisted negotiation — such as facilitation, mediation, and conflict assessment — allow all parties or stakeholders in a dispute to reach a mutually satisfactory agreement on their own terms. The process of mediation, for instance, provides stakeholders with an opportunity to work out their differences and arrive at joint solutions with the help of an impartial mediator. Doing so can save time and avoid many of the costs of traditional legal proceedings. In addition, stakeholders who work toward a shared, positive outcome can often achieve better results than they would have received in court."²³

For this, getting to a consensus is not a piece of cake. Because of the conflict of interest!! Again. The famous prisoner's Dilemma²⁴ is an example of this. So, people may not accept to begin negotiations with other parties or groups because they do not want to acknowledge the legitimacy of other parties, or because it may be for their benefit and interest not to take any

decision in the current time and postpone that to another time and delay any decision in this regard.

Another possible reason for the absence of consensus might be related to cost benefit analysis. By this I mean that some party may deter any consensus because the cost of negotiation may outweigh the expected benefits. This implicitly assumes that this party can vote on consensus even though it is not strong enough to get better returns from it.

In the world of conflicting interests, the *Game Theory* plays a dominant role. The relative endowment along with the availability of information both determines the relative strength of each party in the negotiation process as a way to conflict resolution. The concept of Nash equilibrium is relevant here also.

What Do the CTP's Do?

Answering this question may help determine out direction in the assessing the needs from a coastal training program.

One good example in this regard is the coastal training program at Wells National Estuarine Research Reserve at Laud Holm Farm.²⁵

The vision of the coastal training there is that “people managing coastal resources along the Gulf of Maine will value those resources and will understand the long term environmental, social, and economic consequences of their management decisions and actions.” “The Wells National Estuarine Research Reserve recognizes that local and regional decision-makers can largely determine the character of southern Maine's coastal area...”

Maine Coastal Training & Information Programs (CTIP) provide vital science based information and technology to decision-makers whose work impacts the coastal environment. To be effective, these educational efforts must match the needs of local and regional audiences.

In an effort to design the Coastal Training & Information Program of the Wells Reserve to fit the needs of decision-makers in southern Maine, two important pieces of information were needed:

First, an assessment of the type of training and outreach.

Second, identification of training and information gaps.

Regarding the approach used by that program, it was an integrated approach combining quantitative and qualitative research strategies. The process was sequential; results from the Market Analysis informed the direction and focus of the Needs Assessment. Qualitative open-ended interviews were used to gather input from training service providers, the Wells Reserve staff, and potential audience members. **A quantitative written** survey was used to gather additional input from a wider sample of potential audience members.

Representatives of the CTIP Advisory Committee, Wells Reserve staff and consultants designed the Market Analysis and Needs Assessment protocols. The **Advisory Committee** provided regular feedback to evaluate and refine research strategies and to develop the Recommendations

section of this report. The CTIP Advisory Committee included representatives from the Maine State Planning Office/Maine Coastal Program, Southern Maine Regional Planning Commission, the University of Maine Cooperative Extension / Maine Sea Grant program, Laud Holm Trust, the Reserve Manager and Education Coordinator.

Two methods were used to conduct the Needs Assessment.

1. The interview questions were open-ended and focused on two major categories: Coastal issues facing the town and how they were addressed, and Comments on training and outreach gaps and needs.
2. **The second Needs Assessment method consisted of a survey mailed to 212** coastal decision-makers in southern Maine. Ninety-one usable surveys were returned for a **response rate of 43%**. Respondents represented a cross section of potential target audience members including town planners, code enforcement officers, land trust members, public works directors, resource managers, scientists and municipal officials.

Other tools were needs assessment interviews. And needs assessment survey. More rated four issues as very important that seventy-five percent of respondents. They are conservation of wildlife habitat (83%), balancing growth and economic development with quality of life, recreation agriculture, forestry, and wildlife habitats (80%), conservation of wetlands, salt marshes and vernal pools (79%), water quality in rivers, streams and ponds (76%).

The top ranking training topics that survey respondents wanted to learn more about were "Economic and tax implications of land conservation," "Conservation of wetlands, marshes and vernal pools," "Assessing cumulative impacts of planning decisions," and "Use of Best Management Practices (BMP) for water quality protection."

Five training delivery methods were rated "very helpful" by more than fifty percent of survey respondents. These were: GIS mapping of resource information (75%), Website dedicated to local issues (59%), Printed publication or fact sheet (55%), Research summaries for non-scientists (54%), Face-to face: presentation, workshop, conference (53%).

Another good example to look at is the CTP in Massachusetts; this program provides needed information, tools, and skills to coastal decision-makers. To gather responses, the CTP partners focused on small groups interview and a questionnaire sent to 2,258 individuals.²⁶

The conclusion drawn from the review of the needs assessment from a coastal training program is that most of these assessments utilize the primary collection of data through questionnaires and surveys, in addition to collecting some data by interviews whenever possible.

Which suggests that any needs assessment for study would most probably follow these methods. Other examples of the CTPs that undertook a similar methodology are:

1. Coastal Training Program (CTP) at Jacques Cousteau National Estuarine Research Reserve.²⁷
2. The North Inlet-Winyah Bay CTP.²⁸

Footnotes:

- 1 Based on a report prepared by the National Policy Consensus Center (NPCC) as outgrowth of a meeting in
July 2002 hosted people involved in watershed collaborations. This report is available online on:
<http://www.policyconsensus.org/publications/reports/docs/Watershed.pdf>.
- 2 Copied from the site: http://www.policyconsensus.org/publicsolutions/ps_2.html.
- 3 Vangundy, Arthur B., *Creative Problem Solving: A Guide for Trainers and Management*. Greenwood
Press, Inc.-CT. 1987.
- 4 Types of problems could be classified in many ways. A frequently used classification is describing
problems as well-structured, semi-structured or ill-structured.
- 5 In the references listed in footnote #4.
- 6 This model has been briefed during the interview with Dr. Tom Taylor.
- 7 Hammond, John S., Ralph L. Keeney and Howard Raiffa, *Smart Choices: A Practical Guide to Making
Better Decisions*. Harvard Business School Press. Boston-MA. 1999.
- 8 A description of how to build a risk profile will be done upon request.
- 9 Ralph L. Keeney, *Value-Focused Thinking: A Path to Creative Decisionmaking*. Harvard University Press.
1992, 1996.
- 10 Scholz and Stiftel, Ch18.
- 11 References are mainly (Wikipedia, Scholz and Stiftel).
- 12 Scholz and Stiftel, Ibid.
- 13 http://www.aibs.org/position-statements/20040715_position_statem.html.
- 14 http://www.raritanbasin.org/Phase_2/Meeting_Material/TAC_GeneralRoles.pdf.
- 15 <http://www.georgiawatercouncil.org/documents/members.html>.
[http://www.gwf.org/gawater/Draft%20Composition%20of%20Advisory%20Committees.pdf#search='tech
nical%20advisory%20committees%2C%20water'](http://www.gwf.org/gawater/Draft%20Composition%20of%20Advisory%20Committees.pdf#search='technical%20advisory%20committees%2C%20water').
- 16 This council includes Statewide Advisory Committee, Basin Advisory Committees Geographically-focused
advisory committees will be convened to provide regional perspectives on issues and options for statewide
water policies. These groups will meet periodically during the planning process and will, primarily, provide
input on policy options that EPD is considering for recommendation to the Water Council. The final
meeting of each committee will review the options selected for the draft plan. Each committee will have
designated membership and the meetings will also be structured to allow time for input from the general
public.
- 17 Follow the link <http://www.gwf.org/gawater/conservationreuse.pdf>.
- 18 <http://www.sewrpc.org/waterqualityplan/committees.asp>.
- 19 Ch8- Public Participation, Florida's Source Water Submittal to EPA ,
<http://www.dep.state.fl.us/WATER/groundwater/chapt8.htm#8.2>.
- 20 The reference is <http://www.touchstone.com/tr/wp/transform.html>.
- 21 Here is more information about the public learning: “An individual that is unwilling to learn outside of her
or his position or battery of knowledge is not useful in a learning organization. Similarly, an organization
that does not exhort individuals to push themselves to explore and learn beyond their individual positions
or realms of knowledge cannot become a learning organization. Within the organization there must be a
culture of public learning where the norm is for individuals to expand their knowledge and learn through
conversations with other individuals, discussions in meetings, etc. Public learning not only becomes a norm
within a learning organization, but the public nature of this principle reinforces the culture of learning and
exploration within the organization. Team learning is the discipline whereby groups of individuals develop
capacities for coordinated action such that the intelligence and capacity of the team improves to a point that
it exceeds the aggregate intelligence and capacity of the individuals that make up the team. This discipline
begins with dialogue among team members and between the team and other teams in the organization. The
discipline also involves “learning how to recognize the patterns of interaction that undermine learning.”
Patterns of interaction often and quickly become routinized (institutionalized), and certain patterns are
antithetical to team learning (e.g., defensiveness, blame, extreme hierarchical structures within teams). For
example, imagine a team in which one individual has greater abilities than other members of the team. If

that individual has the tendency to take on greater and more important responsibilities than the other members of the team, the abilities of the other team members (which are already less than the talented individual's abilities) not only remain at a status quo; it is more likely that they will actually atrophy due to lack of challenges and expectations. This pattern of interaction would impede the Team's learning capacity as a whole and impede the learning capacities of individuals within the Team. Teams must have the capacity to analyze patterns of interaction and recognize those patterns that inhibit the learning process (and then act to change those patterns) Team learning is crucial because teams, not individuals, are the fundamental learning units in modern organizations. Unless teams can learn, the organizations, which are made up of teams, cannot learn. It must be a cultural norm of the organization for individuals to learn passionately and publicly."

22 Lowrence S Bacow and Michael Wheeler, Environmental Dispute Resolution. Plenum Press-NY. 1984. 2nd printing in May 1987. More information about environmental dispute resolution are published by the US institute for environmental conflict resolution: <http://www.ecr.gov/>.

23 <http://www.ecr.gov/what.htm>.

24 The classical prisoner's dilemma (PD) is as follows:

Two suspects, A and B, are arrested by the police. The police have insufficient evidence for a conviction, and, having separated both prisoners, visit each of them to offer the same deal: if one testifies for the prosecution against the other and the other remains silent, the betrayer goes free and the silent accomplice receives the full 10-year sentence. If both stay silent, the police can sentence both prisoners to only six months in jail for a minor charge. If each betrays the other, each will receive a two-year sentence. Each prisoner must make the choice of whether to betray the other or to remain silent. However, neither prisoner knows for sure what choice the other prisoner will make. So the question this dilemma poses is: What will happen? How will the prisoners act?

The dilemma can be summarised thus:

	Prisoner B Stays Silent	Prisoner B Betrays
Prisoner A Stays Silent	Both serve six months	Prisoner A serves ten years Prisoner B goes free
Prisoner A Betrays	Prisoner A goes free Prisoner B serves ten years	Both serve two years

The dilemma arises when one assumes that both prisoners only care about minimising their own jail terms. Each prisoner has two options: to cooperate with his accomplice and stay quiet, or to defect from their implied pact and betray his accomplice in return for a lighter sentence. The outcome of each choice depends on the choice of the accomplice, but the player must choose without knowing what their accomplice has chosen to do.

Let's assume the protagonist prisoner is working out his best move. If his partner stays quiet, his best move is to betray as he then walks free instead of receiving the minor sentence. If his partner betrays, his best move is still to betray, as by doing it he receives a relatively lesser sentence than staying silent. At the same time, the other prisoner's thinking would also have arrived at the same conclusion and would therefore also betray.

If reasoned from the perspective of the optimal outcome for the group (of two prisoners), the correct choice would be for both prisoners to cooperate with each other, as this would reduce the total jail time served by the group to one year total. Any other decision would be worse for the two prisoners considered together. When the prisoners both betray each other, each prisoner achieves a worse outcome than if they had cooperated. This demonstrates very elegantly that in a non-zero sum game the Pareto optimum and the Nash Equilibrium can be opposite.

Alternately, the "Stay Silent" and "Betray" strategies may be known as "don't confess" and "confess", or the more standard "cooperate" and "defect", respectively. (Wikipedia).

25 <http://www.wellsreserve.org/ctip.htm> .

26 http://www.who.edu/science/coastaltraining/training_needs/index.htm.

27 http://marine.rutgers.edu/cousteau/coastal_training/ctp_analysis.htm .

28 <http://www.northinlet.sc.edu/training/Default.htm>.

Appendix H

Cities and Counties Included in the Survey and Database

NERR	County	County Website	City	City Website for Information on Elected (and sometimes) Appointed Officials	Regional Planning Council
GTNERR	Duval	www.coj.net	Jacksonville	http://www.coj.net	Northeast Florida www.nefrpc.org
			Atlantic Beach	www.coab.us	
			Baldwin	No	
			Jacksonville Beach	www.jacksonvillebeach.org	
			Neptune Beach	ci.neptune-beach.fl.us	
	Flagler	www.flaglercounty.org/	Town of Beverly Beach	www.flagleronline.com/local/government/beverlybeach.asp	
			Bunnell	www.flagleronline.com/local/government/bunnell.asp	
			Flagler Beach	www.cityofflaglerbeach.com	
			Marineland	No	
	St. Johns	www.co.st-johns.fl.us/	Town of Hastings	www.sjcvotes.us/officials-office.asp	
			St. Augustine	staugustinegovernment.com	
			St. Augustine Beach	www.staugbch.com	
Rookery Bay	Charlotte	www.charlottecountyfl.com	Punta Gorda	www.ci.punta-gorda.fl.us	Southwest Florida www.swfrpc.org
	Collier	www.colliergov.net	Marco Island	www.cityofmarcoisland.com	
			Naples	www.naplesgov.com	
			Everglades City		
	Lee	www.lee-county.com	Bonita Springs	www.cityofbonitasprings.org	
			Cape Coral	www.capecoral.net	
			Fort Myers	www.cityftmyers.com	
			Fort Myers Beach	www.fmbeach.org	
	Sarasota	www.scgov.net	Sanibel	www.mysanibel.com	
			Longboat Key (Dual Cnty)	www.longboatkey.org	
North Port			www.cityofnorthport.com		
Sarasota			www.sarasotagov.com		
		Venice	www.venicegov.com		

Rookery Bay	Miami-Dade	www.miamidade.gov	Aventura	www.cityofaventura.com	South Florida www.sfrpc.com
			Bal Harbour	www.balharbourgov.com	
			Bar Harbour Islands	www.barharborislands.org	
			Biscayne Park	www.biscayneparkfl.gov	
			Coral Gables	www.coralgables.com	
			Cutler Bay	www.cutlerbay-fl.gov	
			Doral	www.cityofdoral-fl.gov	
			El Portal	www.villageofElPortal.org	
			Florida City	www.floridacityfl.gov	
			Golden Beach	www.goldenbeach.org	
			Hialeah	www.ci.hialeah.fl.us	
			Hialeah Gardens	www.cityofhialeahgardens.org	
			Homestead	www.cityofhomestead.com	
			Indian Creek Village	elections.co.miami-dade.fl.us/elected_officials.asp	
			Key Biscayne	www.keybiscayne.fl.gov	
			Medley	www.townofmedley.com	
			Miami	www.miamigov.com	
			Miami Beach	www.miamibeachfl.gov	
			Miami Gardens	www.miamigardens-fl.gov	
			Miami Lakes	www.townofmiamilakes.com	
			Miami Shores Village	www.miamishoresvillage.com	
			Miami Springs	miamisprings-fl.gov	
			North Bay Village	www.nbvillage.com	
			North Miami	www.northmiamifl.gov	
			North Miami Beach	www.cityymb.com	
			Opa-locka	www.cityofopalocka.org	
			Palmetto Bay	www.palmettobay-fl.gov	
			Pinecrest	www.pinecrest-fl.gov	
			South Miami	www.cityofsouthmiami.net	
			Sunny Isles Beach	www.sibfl.net	
			Surfside	www.townofsurfsidefl.gov	
			Sweetwater	www.cityofsweetwaterflorida.com	
Virginia Gardens	www.viriniagardens-fl.gov				
West Miami	elections.co.miami-dade.fl.us/elected_officials.asp				



NERR	County	County Website	City	City Website for Information on Elected (and sometimes) Appointed Officials	Regional Planning Council
Apalachicola	Calhoun	www.votecalhoun.com/	Blountstown	www.blountstown.org	Apalachee www.thearpc.com
			Altha	www.votecalhoun.com/elected_city.cfm	
	Franklin	www.franklincountyflorida.com	Apalachicola	www.votefranklin.com/cityelectedofficials.html	
			Carrabelle	www.votefranklin.com/cityelectedofficials.html	
			Quincy	www.myquincy.net	
	Gadsden	www.gadsdengov.net	Chattahoochee	www.ci.chattahoochee.fl.us	
			Greensboro	No	
			Gretna	No	
			Havana	No	
			Midway	www.midwayfl.com/	
	Gulf	www.votegulf.com/ www.gulfcountygovernment.com/	Port St. Joe	www.votegulf.com/cityelectedofficials.cfm	
			Wewahitchka	www.votegulf.com/cityelectedofficials.cfm	
	Jackson	www.jacksoncountyfl.com	Alford	http://jacksoncountysoe.org/	
			Bascom	http://jacksoncountysoe.org/	
			Campbelton	http://jacksoncountysoe.org/	
			Cottondale	http://jacksoncountysoe.org/	
			Graceville	http://jacksoncountysoe.org/	
			Grand Ridge	http://jacksoncountysoe.org/	
			Greenwood	http://jacksoncountysoe.org/	
			Jacob City	http://jacksoncountysoe.org/	
			Malone	http://jacksoncountysoe.org/	
			Marianna	http://jacksoncountysoe.org/	
	Sneads	http://jacksoncountysoe.org/			
	Liberty	tfn.net/Liberty_County/menu.html	Bristol	libertyelections.com/elected_city.cfm	
	Wakulla	www.mywakulla.com	Crawfordville	No	
			Sopchoppy	No	
			St. Marks	No	

CTP Needs Assessment Survey Results

This online survey focused on:

- Rating the importance of coastal resource issues
- Identifying what is most needed to enhance decisions involving these issues and which types of decisions most require assistance
- Clarifying preferences for CTP training, education and other services

Survey issues were determined through examination of CTP needs assessments, other coastal organizations' materials, and conference and commission agendas. Draft surveys were revised, then finalized through a series of CTP team and consultant meetings, before a review by CTP advisors and final publication. The survey link was E-mailed to approximately 600 elected and appointed officials in the following counties close to the three Florida Reserves.

NERR	Counties Surveyed
Apalachicola	Gulf, Franklin, Wakulla, Liberty, Calhoun, Gadsden and Jackson
Rookery Bay	Dade, Collier, Lee, Charlotte, Sarasota and Manatee
Guana Tolomato Matanzas	Flagler, St. Johns and Duval

Seventy-two officials responded, ten declined to participate and there was no response from the remaining. This represents a 12% response rate, which is higher than some similar surveys of elected officials. The effort was hampered by the November elections and Thanksgiving holiday, which occurred during the survey period. There were problems with E-mail accuracy, staff screening computer firewalls and spam blocking. An undeterminable number of the 600 may not have received the survey. The following are the results of the surveys for each Reserve and the combined results.

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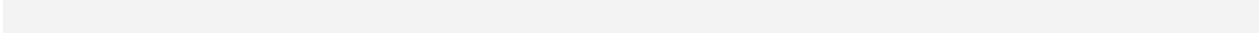


Table 1: Importance of Aquatic Issues (on in or under the water)

Issue	AC	GTM	RB	ALL
Fish and shell fish populations and health: commercial and recreational	4.13	4.09	4.30	4.20
Endangered species management: manatees sea turtles etc.	3.56	4.32	4.21	4.10
Algal blooms such as red tides and blue green algae	3.73	3.73	4.44	4.06
Timing quality and quantity of fresh water flow into the estuaries	4.07	3.73	4.12	3.99
Channel and harbor dredging: access navigation or resource impacts	3.56	4.29	3.87	3.93
Control of invasive aquatic plants and animals	3.87	3.68	4.03	3.89
Boating speed zones and no-access areas	3.38	4.05	4.03	3.88
Boat pump-outs discharges etc.	3.33	4.14	3.91	3.85
Seagrass and other submerged aquatic vegetation	3.60	3.38	4.00	3.72
Marine debris	3.25	3.86	3.80	3.69
Artificial reefs: location construction and funding	3.12	3.50	3.55	3.43
Aquaculture facilities and promotion	3.88	3.00	3.27	3.33
<i>Total response</i>	<i>17</i>	<i>22</i>	<i>33</i>	<i>72</i>
<i>Number that skipped the question</i>	<i>2</i>	<i>4</i>	<i>4</i>	<i>10</i>

Table 2: Importance of Beach Marsh and Shoreline Issues

Issue	AC	GTM	RB	ALL
Pedestrian access to the water: beach access boardwalks etc.	4.19	4.57	3.97	4.20
Beach water quality: closures	4.00	3.95	4.13	4.05
Coastal regulations e.g. construction control lines high hazard area policies	3.93	4.14	3.94	4.00
Beach and shoreline setback and buffer requirements	3.69	4.45	3.78	3.97
Beach erosion renourishment and stabilization	3.47	4.36	3.84	3.93
Floodplain management	3.47	3.64	4.23	3.87
Dune restoration and protection	3.20	4.23	3.82	3.81
Boating access: ramp siting parking and management	3.93	3.95	3.63	3.80
Marina siting and management	3.80	3.95	3.66	3.78
Salt marsh restoration and protection	3.00	4.14	3.85	3.76
Mangrove protection	2.36	3.32	4.36	3.62
Seawalls etc.	3.00	3.86	3.59	3.55
Small docks: siting design construction management etc.	3.67	3.64	3.44	3.55
<i>Total response</i>	<i>16</i>	<i>22</i>	<i>33</i>	<i>71</i>
<i>Number that skipped the question</i>	<i>3</i>	<i>4</i>	<i>4</i>	<i>11</i>

Table 3: Importance Of Upland issues

Issue	AC	GTM	RB	ALL
Water quantity and quality for natural systems	4.38	4.36	4.74	4.54
Land use density and intensity impacts	4.19	4.64	4.63	4.53
Smart growth and sprawl control	4.24	4.73	4.50	4.51
Waste water treatment and disposal	4.69	4.36	4.41	4.46
Wetlands: protection restoration and mitigation	4.13	4.38	4.55	4.40
Stormwater management: public and private	4.47	3.95	4.58	4.36
Public drinking water supply issues	4.47	4.10	4.47	4.35
Impervious surface impacts on water quality run-off and recharge	4.25	4.23	4.42	4.32
Septic systems: siting design and maintenance	4.63	4.05	4.31	4.30
Low-impact or sustainable development: site design construction and landscaping	4.13	4.14	4.42	4.27
Buffer requirements for streams wetlands and conservation areas	4.00	4.50	4.24	4.27
Aesthetics: green space water views landscaping etc.	3.75	4.32	4.39	4.23
Point-source pollution prevention: industrial waste treatment discharges etc.	4.13	3.86	4.42	4.18
Wildlife habitat and corridor protection	3.76	4.18	4.03	4.01
Landscaping requirements to protect water quality	3.81	3.68	4.24	3.97
Conservation and rural land stewardship (Agriculture retention)	3.63	4.14	3.97	3.94
Basin Management Action Plans to meet TMDL requirements	3.87	3.68	3.84	3.80
Agriculture best practices to protect water quality	3.50	3.59	4.03	3.77
Control of invasive upland plants and animals	3.69	3.55	3.79	3.69
<i>Total response</i>	<i>17</i>	<i>22</i>	<i>33</i>	<i>72</i>
<i>Number that skipped the question</i>	<i>2</i>	<i>4</i>	<i>4</i>	<i>10</i>

Table 4: Importance of General or Area-Wide Issues

Issue	AC	GTM	RB	ALL
Conservation and recreational land acquisition and management	3.94	4.41	4.42	4.31
Environmental system management: habitat and watershed management plans etc.	4.00	4.09	4.55	4.29
Achievement of community visions and quality of life of life indicators related to coastal resources	4.21	4.18	4.22	4.21
Economic development and tourism promotion including heritage and eco-tourism	4.07	4.23	4.15	4.16
Endangered species protection	3.87	4.09	4.30	4.14
Cultural and historic resources: identification and protection	3.67	4.32	4.19	4.12
Climate change and sea-level rise	3.53	3.18	3.91	3.59
<i>Total response</i>	<i>16</i>	<i>22</i>	<i>33</i>	<i>71</i>
<i>Number that skipped the question</i>	<i>3</i>	<i>4</i>	<i>4</i>	<i>11</i>

Table 5: Additional Coastal Environmental Issues That Are Important

Apalachicola

- All covered above
- We are not on the coast.
- Stopping the zoning changes that allow increased density in coastal areas
- Bascom is inland so most of the topics that I didn't respond to do not apply to Bascom

Guana Tolomato Matanzas

- Shoreline development, particularly docks and bulkheads that directly impact coastal habitats. Again the cumulative effects adversely transform coastal habitats and erode aesthetic qualities.
- We need more artificial reefs off shore.
- Wildlife Habitat and Corridor Protection Would like to retain what we have.
- Aesthetics - An issue resulting from the rapid growth is the quality of the development being approved. Overlays are in effect to strengthen the county's control over the buffers provided in an effort to ensure compatibility with existing development and not to negatively effect property values.
- Inadequate wetland buffers
- Wildlife habitat. We must ensure that our remaining wildlife has a place to live.
- Access to ocean beaches and inland waters. Additional funding from state or federal governments to assist in finding and acquiring lands for public access to these areas.
- Land use density and intensity impacts
- Access to creek for boaters
- Endangered species protection
- Long-range planning and development of dependable infrastructure - water supply, wastewater disposal and traffic patterns. A balance in man's invasion of natural ecosystems should follow the balance of nature. Infrastructure planning should precede new development.
- Support the people who have the ability to make a difference, i.e.: NERR and Whitney Lab
- Septic systems removal and replaced with sewer lines
- Maintenance Dredging - If permitting of maintenance dredging could be simplified and shortened, maybe docks would not have to be as long as they are to get to deep enough water.
- Smart growth is an issue in the cities surrounding Flagler Beach and, therefore affects us, as well.
- Dune restoration protection
- Protection of clam and oyster aquaculture in the Matanzas River. This is a historical and successful practice, made possible by generally high water quality.
- Enter additional coastal environmental issues that are important to you and your community

Rookery Bay

- Question 2H refers to boating access. You did not indicate anything for kayak and canoe access, which I would think is greatly preferred over motorized craft. There are very few kayak/canoe sites in Collier due to a poor attitude on the part of the Director of County Parks. We need more emphasis on non-motorized craft as a way to help folks become more aware of our local environment.

Table 5 Continued

<ul style="list-style-type: none">➤ Non-point sources of pollution into our canals and bays. 2. Septic tanks that may be another source of pollution to our waterways.➤ The use of Environmentally friendly fertilizers on private lawns and golf courses. Run-off of fertilizers in our estuary system.➤ Retrofitting older development for water quality improvements. Prevention of potential negative impacts from offshore petroleum exploration and production.➤ Beach Erosion➤ Lower density at costal areas.➤ Balancing property rights with community concerns Hi-rise development in high hazard areas➤ Save the Everglades by cleaning water and moving it south.➤ Access to mangrove and shoreline for educational purposes➤ One: Unbridled growth.➤ Our environmental issues are: beaches, water quality, and red tide. <p>Lake Okeechobee release schedule into Caloosahatchee River Development pressure to build in the designated DR/GR in East Bonita and Eastern Lee Co. Estero Bay's loss of aquatic life Imperial River and local creeks water quality hence wildlife loss due to development and runoff along waterways Conquering light pollution's effect on sea turtles along beach Demise of water bird resources both shoreline and upland Dumping of boats and monofilament Need to restrict marinas on river Fertilizer usage and landscape maintenance.</p>
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Table 6: The Most Important Issue

<p>Apalachicola</p> <ul style="list-style-type: none">➤ Maintenance of viable seafood industry. So long as seafood provides employment for a significant segment of Franklin Co, government will (should) continue to restrict waterside developments that degrade the bay. I would rather have 10 oystermen on my side, than the best attorneys from Audubon, Sierra, and Nature Conservancy, combined. Their voices are heard and heeded.➤ Protection and conservation of our drinking water resources➤ The release of upstream water to protect our downstream species and recreational and shipping opportunities.➤ Point source pollutant controls, not allowing increased density on septic even if advanced systems are used 1. Water quality and quantity➤ Upland issues I feel are the most important because they affect not only the property around them but the underground aquifer and anything down stream. Like septic tanks, stormwater runoff and use of fertilizer on lawns.➤ Tourism, or the lack thereof. Wakulla County has assets people would pay thousands to see and understand and our ability to provide access and guidance is horrible. Our future is dependent upon ecotourism. <p>Guana Tolomato Matanzas</p> <ul style="list-style-type: none">➤ We need to dredge existing channels we need to protect the "Working Waterfront" We need more public boat ramps. We need more artificial reefs off shore. We need managed mooring fields in St Augustine➤ Building and structure height along the ocean beaches. Access to inland rivers. Protection of wetlands with an upland component to accommodate species habitat. Redevelopment of depressed and blighted beach towns while maintaining the natural environment.

- Greater understanding and implementation of new urbanism principles of growth; consciousness of "green Communities."
- Beach Erosion
- As you probably know, Flagler Beach has been badly affected by beach erosion. We have lost much of our beach and A1A is often endangered. The Army Corps dredges and causes loss of the ocean's wildlife. Their projects have to be repeated over and over. We have applied to the State for an innovative technology project to see if a groin-like structure will work on a one-mile stretch of the beach.

Rookery Bay

- Quality and Quantity of drinking water
- Watershed plan
- Water. At the rate we are depleting our aquifers and the huge rise in population, water will be a resource to deal with in the future. Water conservation in a wealthy area is unrealistic as the wealthy homeowners care little about the cost of anything.
- Non-point sources of pollution, e.g., run-off from yards/streets of untreated water.
- To protect and preserve the environment and at the same time include public access. For the education of future generations.
- Destruction of wetlands. Draining of wetlands, destruction of mangroves!
- Beach nourishment programs to protect shoreline and property with federal and state funding.
Keeping our beaches in pristine condition - impacts quality of life and tourism. 2. Coastal control line - keeps construction within those areas deemed appropriate. However, conflicts with Burt-Harris act pose a problem. 3. Protection of the manatees with safe boat speeds and constant education.
- Timing, quality and quantity of freshwater inflow into the estuaries, particularly as it relates to Lake Okeechobee, Everglades Restoration and the Caloosahatchee Estuary. It impacts every sector of our economy and quality of life. The problems are enormous in scale and significantly impacted by factors outside our control (weather). There are no apparent solutions that do not necessarily have some negative impact on some other component of the system, but for too long the estuaries have been suffering because of decisions of courts or influence of special interests focused on narrow topics (a single endangered animal, or water quality target or agricultural interest) rather than the system as a whole.
- Beach Erosion
- Surface water run off. This is the one thing we can work on that is our responsibility within our jurisdiction. We need to have a statewide ban on blended fertilizers for domestic use. We should only be using slow releasing manufactured fertilizers to avoid run off into waterways and eventually into the gulf.
- Red tide
- Growth management
- Protection of coastal species
- Saltwater intrusion into existing wells As more water is diverted to other areas we are concerned that our residents' wells will go bad - and county water may not be available to them.
- The impact of uncontrolled growth in proximity of our fragile coastlines on our existing infrastructure, eco-systems, and way of life. This is important,

- because we are systematically destroying the very reasons that make Florida what it is (was, in some cases).
- Sewering Marco Island to ensure our pristine waterways for the future.
 - Development impacts to natural system. Priority given to short-term economic gains over long-term environmental costs.
 - Beaches: having just completed a multi-million dollar beach renourishment project we are now dealing with citizen reaction to the finished project. While we are pleased with the look and protection the new beach provides many of our citizens are not happy with the "look" of the new beach.
 - Building along the Imperial River without adequate setbacks, height limits and restrictions on impervious surfaces close to the river and limiting seawalls. Runoff into the river is killing river grasses and wildlife. Fortunately, we are promoting canoe usage over motorboats so people appreciate the beauty of the river. There is no additional setback further than 25 feet and high-rises will crowd out sunlight into the river leading to a further demise of the river health. While property owners have rights, so does the community concerning overall quality of life that focuses on our river and beaches. All runoff in Old Bonita is directed towards the Imperial River and this Outstanding Florida Waterway is suffering
 - Protecting wildlife.

Table 7: The second Most Important Issue

<p>Apalachicola</p> <ul style="list-style-type: none"> ➤ Control of development densities. The current one house per acre rule is good, but mega-developer, St Joe should be held to a more stringent standard. Franklin Co doesn't need the volume of houses currently on the drawing board. ➤ Environmental system management ➤ The protection of our aquatic environment. ➤ Stormwater run off controls ➤ The protection of native plants that help filter water runoff. ➤ Access, or lack thereof. With population growth, access is becoming harder to find. In the past, people did not mind the public crossing their land to get to water--there were few people and most were friends. Today, there are too many people for property owners to allow the public to cross their land. <p>Guana Tolomato Matanzas</p> <ul style="list-style-type: none"> ➤ Watershed development beyond carrying capacity for sustaining environmental integrity. Cumulative impacts on several fronts are of concern including water quality degradation, habitat loss and aesthetic issues related to the loss of green space etc. ➤ We need to dredge existing channels. ➤ Beach erosion Flagler's beaches are experiencing significant erosion. ➤ Smart growth - Some view the growth in the county as out of control and detrimental to our tourist industry. If the character of our county is changed how will it affect the tourist economy? ➤ Overdevelopment and destruction of uplands and habitat ➤ Smart growth and sprawl control. We must conserve as much sensitive land as is possible. ➤ Land Use and density with increased height along the ocean beaches and within the Coastal High Hazard Area. The County's Comp. Plan has reduced density along the ocean beaches but amendments and need for additional growth has resulted in many amendments. The County has limited its approval but there is a threat to sue under property rights protection. ➤ Access to waterways

- Beach erosion, renourishment and stabilization
- Private Property use of water front land within state regulations
- Water supply
- Cultural and historic resources protection and promotion. For St. Augustine, a world heritage site, a solid heritage program of maintenance and interpretation is critical, as is its cultural arts to our quality of life. Both elements have low priority in the general political realm today, which can only be overcome by a reawakening of public passion for these elements.
- Water Quality.
- Beach Restoration
- Harbor Mgmt. - The city of St. Augustine is in the process of developing a harbor mgmt plan for waterways within the city limits (Matanzas Bay and Salt Run) Any information related to this subject would be helpful.
- As stated above, beach erosion is Flagler Beach's main concern. A grass-roots community group has been advocating Holmberg's undercurrent stabilizers, but the commission voted 3-2 to apply for the State grant with a different project in mind (BRI). Those of us who favor the Holmberg method believe it to be more economical, safer for the environment, more proven to work. However, some say it will never be permitted and, therefore, do not want to go forward with it.
- Beach stabilization
- Maintenance of high water quality in the estuary. This has the greatest impact to our area.

Rookery Bay

- Water quality
- Public education. Too many new people from too many different cultural backgrounds are coming into our areaway to fast to be able to learn how to protect and help conserve our resources and environment. Most of them are so busy earning a living that there is little time for anything else or the dealing with the effort or expense to conserve.
- Potential septic tank pollution and inadvertent releases of sewage from or related to the city's sanitary sewer treatment system.
- Cultural and historic resources should protect and allow public access to all preserves.
- Septic systems and how it effects the environment
- Red tide mitigation for the health of residents and visitors. This has an impact on Economic Development as well.
- Non-point-source runoff and pollution loading from agriculture and landscape practices. A problem that tends to grow with our population and contribute to algal blooms, other water quality problems, Seagrass loss, etc. It will take a new way of thinking to get people to make the individual choices to sacrifice their "perfect green lawn" for the larger benefits to our water quality and way of life. Getting people and agribusiness to make better choices on fertilizer and land management practices will have short-term resistance that must be overcome until the long-term benefits can be demonstrated.
- Beach Erosion
- Proper identification of the DR/GR. There needs to be a scientific purpose for it. This has been done in the city of Bonita Springs but the county has not done it. Development pressure will eventually cause spot zoning and comp plan changes. Realistic planning for road construction in some DR/GR lands could eventually help in controlling development.
- Land use and low impact development
- Water issues
- Current development of our wetland areas
- Controlling growth along our fragile coastlines. Important because it is local government's responsibility to protect both its lands and citizens from the

ravages of Katrina-like events. (The first fingers of fault were pointed at local governments for allowing such in areas where Katrina did the most damage.)

- Controlling density and intensity so that there will be reasonable capacity demands on our infrastructure into the future.
- Local governments refusal to coordinate financially feasible and sustainable infrastructure plans (including environmental infrastructure) for likely build out scenarios of their comprehensive plans. Most all development decisions and comp plan amendments are made in isolation, without regards to cumulative impacts.
- Red tide: we have had another year of red tide, and though not as bad as 2005 we still spent over \$300,000 of Town money to clean up dead fish. The clean-up cost as well as lost tourism is a very negative quality of life issue on our barrier island.
- Directly related to the Imperial Rivers health is the pressure by the development community to build in the DRGR. Lack of surface water storage will lead to flooding and demise of bird and wildlife sanctuaries. Also higher levels of flooding and dry periods in concentrated areas will lead to chock on plant life. While detention and retention ponds provide for a limited relief to runoff they will become pits of nutrient build up and are not an alternative to slow flows of freshwater resources for healthy wildlife.

Protecting Mangroves

Table 8: The third most important issue

Apalachicola

- Apalachicola River flows. An agreement must be made with GA & AL to maintain an adequate flow of water into Apalachicola Bay. This is a critical element in the maintenance of the seafood industry.
- Achievement of community visions
- The protection of our Apalachicola Bay environment.
- Point source pollutant controls, not allowing increased density on septic even if advanced systems are used
- The control of invasive plants and animals.
- Pollution. A major economic concern is fishing, both commercial and guide. If we do not protect our water quality, our bays and rivers will continue to worsen to a point of no quick return.

Guana Tolomato Matanzas

- Cumulative anthropogenic impacts in coastal areas due in large part to development of coastal uplands (first issue) but also the effects of the associated increased population and concomitant use of coastal waters, beaches and upland green spaces.
- We need managed mooring fields in St Augustine.
- Land Acquisition This is really the only way to protect land.
- Density/Intensity - The amount of residential approved and the intensity of development has caused concerns on its impacts to water quantity, road capacity and other quality of life issues.
- Poor development design and standards - lack of clustering to allow for more open space inefficient use of land caused by sprawl and low density land uses
- Wetlands. We must have areas that the water systems can recharge themselves.
- TDML issues. The County has enacted stormwater management criteria to address this issue at a local level but it is a bigger issue than one County can undertake, so additional funding and state guidance is needed to the entire

system successful.

- Spending financial resources to the most effective benefit...not based on political agendas not related to environment (turtle protection plans for example)
- Dune restoration and protection
- Sand dunes along ocean
- Beach renourishment
- New and existing development incorporating town center concepts and interconnectivity. St. Augustine should be a model for sensible new development surrounding our city. a combination of regulation and public/private cooperation is necessary for success.
- Shell fish protection
- Incidental take permit
- Dock Location and Length - Everyone who buys a home site on the water wants a dock, even if it is 900 ft long. This presents many problems for the city including impact on the wetlands, hazards to boaters, visual impact on the environment.
Stormwater retention is another major issue. Because stormwater runs downhill from Central Avenue toward the Intercostals, those at the bottom of the hill often suffer flooding on their properties. Some homebuilders have used huge amounts of fill to make their homes higher than the neighbors' homes, causing additional flooding problems. The City is currently resolving this issue.
- Beach renourishment
- Public access for recreational purposes. There should be many, well designed access sites to remove the need for people to make their own access sites where they choose.

Rookery Bay

- Public access
- Depreciation of the quality of life in Collier County. Most people moved here to enjoy the natural benefits of the area including beaches, bays or the everglades. The county's growth management plan does not adequately control growth, it in essence it is a guide on how to promote growth.
- Aquaculture facilities are highly needed for this area to insure redistribution of local species
- Destruction of endangered species habitat
- Adequate and sensible boat marinas to accommodate residents and visitors.
- Beach erosion, renourishment and stabilization in the face of potentially more active hurricanes, rising sea level, and shrinking sand resources. The only other options are to retreat or to abandon beach property owners to take care of the problem on their own. These impacts will be significant, costly, long term, and impact a treasured public resource along with the natural resources that depend on the beaches. At some point, projects may no longer be economically justified simply in terms of the market economics, and difficult political decisions will need to be made as to the value of preserving the public sandy beaches relative to the costs.
- Density/Building
- I believe we are not working our watersheds to the best of their ability. We need to develop manage practices that can remove more nutrients from the water as it flows through the watershed.
- Sustainable processes and programs like building green
- Sustainable communities.

Table 9: For Policy or Project Decisions That Impact Coastal Resources Rate the Importance of Having:

Decision	AC	GTM	RB	ALL
More scientifically verifiable data	4.27	4.27	4.50	4.38
Better Decision tools to integrate consideration of the environmental economic stakeholder and legal implications of alternative decisions	4.27	4.27	4.38	4.32
Better analyses of how environmental impacts affect the local and regional economy	4.20	4.19	4.34	4.26
Better Analyses of all policy or project impacts on the local and regional economy	4.27	4.00	4.25	4.17
Better explanations of the legal implications of the policy or project approval	4.13	4.32	4.09	4.17
A better understanding of impacts of decisions on specific constituent or stakeholder groups in the community	4.33	4.09	4.06	4.13
Better assessments of fiscal impacts on your unit of government	4.27	4.14	4.06	4.13
<i>Total response</i>	<i>15</i>	<i>22</i>	<i>32</i>	<i>69</i>
<i>Number that skipped the question</i>	<i>4</i>	<i>4</i>	<i>5</i>	<i>13</i>

Table 10: How Important Is It to Have Assistance With:

Details	AC	GTM	RB	ALL
Planning and policy decisions, for example: comprehensive plan amendments transportation plans conservation and recreation plans agriculture land stewardship economic development strategies wetland and watershed protection waste water requirements emergency management manatee protection plans and others	4.53	4.71	4.59	4.62
Land development regulation decisions, for example: developments of regional impact land use changes project approvals variances environmental permitting docks and others	4.47	4.73	4.47	4.55
Decisions on public projects and facilities, for example: siting locally unwanted land uses wastewater treatment and disposal marinas mooring fields shipwrecks public land management and others	4.40	4.52	4.22	4.35
Special studies and problem solving, by ad hoc task forces advisory boards or public involvement processes for example: community visions sustainable development rural land stewardship economic development tree ordinances and others	4.07	4.00	4.25	4.13
<i>Total response</i>	<i>15</i>	<i>22</i>	<i>32</i>	<i>69</i>
<i>Number that skipped the question</i>	<i>4</i>	<i>4</i>	<i>5</i>	<i>13</i>

Table 11: Acceptability of Training and Education Formats

Format	AP	GTM	RB	ALL
On-site field trips to learn about specific issues	2.57	2.76	2.22	2.48
A web site with basic information and down-loadable or linked resources	2.31	2.57	2.47	2.47
Presentations – at your regularly scheduled meetings or workshops	2.57	2.43	2.43	2.46
Workshops – 1-2 hours	2.57	2.19	2.33	2.34
Presentations held at your local Research Reserve or other locations for individual commission or board members	2.14	2.33	2.21	2.24
Workshops – 2-4 hours	2.07	2.14	2.15	2.13
A course or series of workshops over several months	2.21	1.90	2.00	2.02
Workshops - full day	2.07	1.95	1.71	1.87
Workshops – several days	1.36	1.29	1.19	1.26
<i>Total response</i>	<i>14</i>	<i>21</i>	<i>30</i>	<i>65</i>
<i>Number that skipped the question</i>	<i>5</i>	<i>5</i>	<i>7</i>	<i>17</i>

Table 12: Add Additional Formats or Explanations of Your Answers Above

<p>Apalachicola (2 of 19 responses)</p> <ul style="list-style-type: none"> ➤ Have someone associated with the Coastal Training Program who can be present at most (if not all) county commission, planning & zoning, and board of adjustment meetings to answer questions that may arise. ➤ Not all decision makers will use the web. Multi-day training precludes many part time decision makers from attending. Personally, I love training and will attend whatever I can. <p>Guana Tolomato Matanzas (4 of 26 responses)</p> <ul style="list-style-type: none"> ➤ It is not easy to get out of the office for several days to a workshop. ➤ Protection of St Johns river basin land acquisition validity of rural land stewardship to improve our cost of living-and reduce environ impact access to environmental areas-respectable and appropriate ➤ CD-Rom ➤ My best assumption is that 2-4 hour study is not as good as all day activity. Or 1-2 hour executive overview. Web site is nice to have available but I doubt that I would access it unless research is required for an agenda topic. <p>Rookery Bay (6 of 37 responses)</p> <ul style="list-style-type: none"> ➤ Email ➤ None at this time. ➤ Our council meetings are full now, presentations at the council meeting is not an option. Workshops are preferred. Full Council not necessary for Research Reserve location meetings. ➤ I now work 70 hours a week, keeping additional meetings within my existing schedule is preferred ➤ Adding items to regular scheduled meetings, though acceptable, is a problem as these meetings are already very long. Adding another item that significantly adds to the length of the meeting only means that "the mind wanders" and the effectiveness of the presentation is compromised. ➤ A person from the research center who is specifically assigned to our city to act as a guide concerning environmental impacts and policy

Table 13: Season, Weekday, Time of the Day and Distance Preferences

	AP	GTM	RB	ALL
a. Season				
Spring	2.29	2.47	2.27	2.34
Autumn	2.15	2.16	2.08	2.12
Summer	2.08	2.05	2.00	2.04
Winter	2.25	2.00	1.89	2.00
<i>Total response</i>	14	20	28	62
<i># skipping the question</i>	5	6	9	20
b. Day of the week				
Wednesday	2.54	2.30	2.00	2.22
Thursday	2.33	2.10	2.08	2.14
Friday	1.92	2.10	2.17	2.09
Monday	1.83	2.16	2.13	2.07
Tuesday	2.08	2.11	1.79	1.96
Saturday	1.58	1.33	1.50	1.46
Sunday	1.17	1.11	1.17	1.15
<i>Total response</i>	14	21	28	63
<i># skipping the question</i>	5	5	9	19
c. Time of the day				
Morning	2.36	2.57	2.44	2.47
Afternoon	2.25	2.30	2.13	2.21
Evening	1.83	1.85	1.46	1.68
<i>Total response</i>	14	21	27	62
<i># skipping the question</i>	5	5	10	20
d. Distance to the training place				
<15 miles	2.50	2.76	2.78	2.72
15-30 miles	2.50	2.32	2.00	2.21
31-50 miles	2.08	1.68	1.77	1.81
51-75 miles	1.58	1.32	1.35	1.39
>75 miles	1.38	1.26	1.12	1.22
<i>Total response</i>	14	21	28	63
<i># skipping the question</i>	5	5	9	19

Table 14: How important are each of these other services provided by the Research Reserve Coastal Training Program?

Services	AC	GTM	RB	ALL
Provide clear simple data maps fact sheets etc.	4.54	4.67	4.41	4.52
Provide and explain model ordinances best management practices etc.	4.38	4.33	4.38	4.37
Convene/host problem-solving forums or workshops to develop recommendations to your commission on specific issues	4.46	4.05	4.00	4.11
Issue-specific consultation through phone calls emails and/or meetings	4.00	4.33	3.86	4.05
Helping identify and access qualified scientists and other environmental professionals	3.92	4.10	3.86	3.95
Assisting advisory committees to integrate scientific legal administrative property owner and interest group input and shape consensus recommendations to your commission	4.08	4.14	3.72	3.94
Helping scientists and staff to present technical information in a useful format	3.85	4.10	3.72	3.87
Assistance with tools e.g. GIS issue analysis study compilations white papers	3.77	4.05	3.76	3.86
Providing materials and guidance to your employees who do staff training and public education	3.85	3.81	3.86	3.84
<i>Total response</i>	<i>13</i>	<i>21</i>	<i>29</i>	<i>63</i>
<i># skipping the question</i>	<i>6</i>	<i>5</i>	<i>8</i>	<i>19</i>

Table 15: Specific Needs for the Coastal Training Program Services

<p>Apalachicola (2 of 19)</p> <ul style="list-style-type: none"> ➤ We need hard facts. Currently we are forced to base our decisions on the word of the proponent/opponent, and our own best judgment. ➤ All of the above appear to be important but I am not familiar with this service. <p>Guana Tolomato Matanzas (2 of 26 responses)</p> <ul style="list-style-type: none"> ➤ I have requested that enhancements for water quality improvement be considered in the EAR comp plan amendment ➤ Schedule constraints limit time available for this kind of activity <p>Rookery Bay (5 of 37 responses)</p> <ul style="list-style-type: none"> ➤ Active participation in public meetings would go a long way to having a stronger influence over what occurs. ➤ Natural process for coastal management. Role of mangrove fringe, submerged bottom habitats and coastal erosion ➤ Our staff and some members of our council are often content with taking the advice of the development community and have a certain mindset that accepts a minimum level of environmental protection ➤ When you present your conclusions/suggestions/recommendations, you need to present all alternatives, the pros and cons of each alternative, and not just go with 'conventional wisdom'. You lose credibility by simply representing one side of an issue. Ensure that your staff is well versed on both sides of an issue, has done their homework; they particularly need to accept the fact that a generally accepted solution is not the only and best way to fix a potential problem. Each location has its unique environmental characteristics and needs to be studied first to determine the best solution to address an actual or potential problem. ➤ Education on protecting our waterways. This includes replacing septic systems.

Table 16: Knowledge of the Coastal Training Program

Knowledge Of CTP	AP	GTM	RB	All	Percent
Yes	6	6	8	20	31%
No	8	23	13	44	69%

Table 17: Apalachicola Counties

County	N ^o .
Calhoun	1
Franklin	4
Gadsden	4
Wakulla	4
Gulf	0
Liberty	0
Jackson	2
TR	15
S	4

Table 18: Guana Tolomato Matanzas Counties

County	N ^o .
Duval	3
Flagler	7
St. Johns	11
TR	21
S	5

Table 19: Rookery Bay Counties

County	N ^o .
Charlotte	0
Collier	9
Lee	4
Miami-Dade	7
Sarasota	4
Manatee	6
TR	30
S	7

Table 20: Position

Position	AP	GTM	RB	All	Percent
City Commission, Council or Mayor	9	10	22	41	66%
County Council or Commission	3	4	6	13	21%
Planning Board or Commission	2	1	2	5	8%
Other	1 employee	Port Board/?		3	5%



Appendix J

Compilation of Review Input from Elected Officials and CTP Advisors and Partners

A summary of the insights from the literature review and the results of the survey were sent to advisors for each of the Coastal Training Programs for comment. Responses were received from five advisors. The summary was also used in a series of interviews with three current or former elected officials and representatives from nine representatives of CTP partner organizations.

The words in **bold** were highlighted by the consultant in the process of identifying key points and themes.

CTP Advisor Comments

Apalachicola Advisor

1) Based on your knowledge and experience, what additional insights can you share after reading the summary on the needs of elected officials for CTP services?

I wonder if the survey has been completed largely by persons who are all ready networked into information streams on coastal issues and policy? **The homogeneity and high rankings might indicate that these folks are all ready a tapped audience**, so to speak. What of the other 440 elected officials? If these people had responded, might the responses have varied more greatly? **I'm just wondering if there might be some way, perhaps a comments section or evaluation section on the webpage, to allow for an adaptive approach to information/issue assessment in the future.** Once marketing for the CTP is undertaken, perhaps these silent officials will become more aware, interested or engaged. If so, a simple feedback form on the webpage would provide CTP staff the feedback necessary to renew or adjust their direction/topics.

2) What suggestions do you have for an effective web site?

Obviously, the more user-friendly/jargon free the better and, possibly, it would be best not to have it **nested too far into the DEP Internet mire**, otherwise policymakers may give up trying to get at it. I would also highly recommend inviting a few **non-technically savvy, local politicians or staff persons to poke around on the site and provide some feedback** before calling it done. In terms of content, perhaps bibliographies of topical resources, information on sources of technical assistance, etc. I hope, also, that **the website and content, will be monitored, revised and updated often.**

3) What additional CTP services would you suggest to meet the needs of elected officials?

A handbook or phone book of resources (e.g., information sources, agencies, with contact information, etc.) indexed by topic or issues, I think, would be highly valued by many municipal and county employees/officials, if it were accurate and kept up to date. I have heard this

repeatedly from folks in the field who grow frustrated when calling all around trying to get information from state officials.

Apalachicola Advisor

1) Based on your knowledge and experience, what additional insights can you share after reading the summary on the needs of elected officials for CTP services?

I think the six category/issue(s) pretty much cover topics (upland issues) affecting our area but **I would have thought impacts from commercial and recreational users, as it relates to water quality**, would have had greater weight especially at GTM and Rookery. Maybe that's a result of there being not many "write-in" topics (or true interest) in the survey.

2) What suggestions do you have for an effective web site?

If the site HAS to be embedded in the FDEP site try not to bury it too far or make it cumbersome to access. It will have to be easy to use.

3) What additional CTP services would you suggest to meet the needs of elected officials?

There is such a wide array of information and training happening now that it is tough to think of anything new.

It is more a matter of gaining politicians/citizens interest about what is already out there.

Rookery Bay Advisor

This summary of next steps looks very good. As for website suggestions, I should think that thoughtfully constructed links to assorted issue resources that cut to the chase with "best management practices" up front coupled with more detailed info re the whys and wherefores for these practices and example ordinances etc. that can be burrowed into would be most effective. Most elected officials are not good at, or have time for, deciphering all the technical factors that need to go into the broad range of decisions they need to make. The "lobbyists" help them with this as well as staff, so I think that easily-digestible, fact-sheet type CTP info is critical for guiding wise management decisions by this sector of coastal decision makers.

Rookery Bay Advisor

1) Based on your knowledge and experience, what additional insights can you share after reading the summary on the needs of elected officials for CTP services?

It is a shame that only 12% of the surveys were returned. Makes me wonder if there are better ways to reach the officials. What I have quickly learned in my "brief" time as an agent is that **officials want quick answers to complex issues**. A lot of **what will be important** to the officials will be what is **coming from their constituents**. Scientific information might not always be their main priority (unfortunately)

2) What suggestions do you have for an effective web site?

K.I.S.S- provide information to officials that will be easy for them to understand and utilize. Provide officials **the opportunity to exchange dialogue with scientists as well as other officials**. (Give them the opportunity to share **what is/isn't working** in their communities and offer each other advice/ assistance).

3) What additional CTP services would you suggest to meet the unique needs of elected officials?

I think it is imperative to **get officials out in the community and witness issues first hand**; continue developing programs that **actively involve** elected officials. **Don't just lecture** to them. Just because they are in those positions does not mean they know the first thing about science or even how different agencies work. For example, if you surveyed the officials, how many of them could explain how DEP, FWC, WMD's operate. There has been a lot of battling between Lee County and the SFWMD over nutrient levels in the Caloosahatchee River to the point where some of Lee County's commissioners wanted to break away from the WMD.

Apalachicola Advisor

1) Based on your knowledge and experience, what additional insights can you share after reading the summary on the needs of elected officials for CTP services?

2) What suggestions do you have for an effective web site?

I would like to suggest that the website provide **interactive training modules**. While it is valuable to provide text regarding watershed and growth management issues (or any other issue), it is much more beneficial to **create scenarios that would demonstrate the different approaches that may be used to address the situations**. Use of interactive modules will complement site visits (which have been identified as an important mechanism whereby information can be communicated to officials). The **modules can be based on sub-topics within a larger core** – e.g.

Growth

Smart growth

features of smart growth (text material)
Simulation exercises to create a smart growth community
Scenarios that identify/implement features of smart growth
Policy workshops that can assist in designing policies related to growth (follow-up for the topic)

Sprawl

features of sprawl
Simulation exercise on sprawl
Planning analysis of impacts of sprawl
Policy workshops to assist in developing policies to control sprawl

It may also be useful to **attach Q & A to the website – quizzes that may serve as an evaluation tool for both the official and the CTP coordinator.**

3) What additional CTP services would you suggest to meet the needs of elected officials?

A larger **connection** can be made with the **policies relating to 9J5** requirements for coastal communities and the impact on these areas (growth issues). Overall, a concentrated effort should be made to **link the planning decisions with the science-based issues.**

A process of continued evaluation (annual, biannual, etc.) will serve to refine the strategies used to provide outreach to the officials and to determine which ones work best.

Apalachicola Advisor

1) Based on your knowledge and experience, what additional insights can you share after reading the summary on the needs of elected officials for CTP services?

I wonder if the survey has been completed largely by persons who are all ready networked into information streams on coastal issues and policy. The homogeneity and high rankings might indicate that these folks are all ready a tapped audience, so to speak. What of the other 440 elected officials? If these people had responded, might the responses have varied more greatly? I'm just wondering if there might be some way, perhaps a comments section or evaluation section on the webpage, to allow for an adaptive approach to information/issue assessment in the future. Once marketing for the CTP is undertaken, perhaps these silent officials will become more aware, interested or engaged. If so, a simple feedback form on the webpage would provide CTP staff the feedback necessary to renew or adjust their direction/topics.

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repeatedly from folks in the field who grow frustrated when calling all around trying to get information from state officials.

Rookery Bay Advisor

This appears to be very thorough and thoughtful.

Is there a mandatory training program for county commissioners? If not, why not?

Rookery Bay Advisor

1) Based on your knowledge and experience, what additional insights can you share after reading the summary on the needs of elected officials for CTP services?

It is a shame that only **12%** of the surveys were returned. **Makes me wonder if there are better ways to reach the officials.** What I've quickly learned in my "brief" time as an agent is that **officials want quick answers to complex issues.** A lot of **what will be important** to the officials will be what's **coming from their constituents.** **Scientific information** might **not** always be their main **priority** (unfortunately)

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I think it is imperative to **get officials out in the community and witness issues first hand;** continue developing programs that **actively involve elected officials.** **Don't just lecture** to them. Just because they are in those **positions doesn't mean they know the first thing about science or even how different agencies work.** For example, if you surveyed the officials, how many of them could explain how DEP, FWC, WMD's operate? There has been a lot of battling between Lee County and the SFWMD over nutrient levels in the Caloosahatchee River to the point where some of Lee County's commissioners wanted to break away from the WMD.

Elected Officials and CTP Partners Interview Notes

Former Rookery Bay Area Commissioner

Issues

- It is difficult to talk about other areas. Marco is unique. The County Commissioners are full time people. Everyone knows that **water** has been and will continue to be an issue. Both **quality and quantity**.
- Secondary there is the **whole issues of growth**. Marco is limited but else where it is an issue.
- TS How much do **officials think of growth in terms of environmental quality rather than other issues?**
- **They don't**. They don't have a clue about downstream impacts of projects.
- How do we make that connection?
- I attended a workshop with a **field trip** that helped get the big picture.
- **How do we get others to come?**
- **It takes a personal outreach.**
- **Consider a 10-minute presentation on what we can do for you.** May get the horses to water.
- **They talk about environmental impacts but not the big picture.**
- TS – We will have a **web site to park information** and then go out and say we have a site and tools.
- Link it to our plans. **You can explain that when you are going to do a comprehensive plan amendment this what CTP can do.**
- We had three commissioners from Marco fill out the survey, more than any other city.
- There are more boaters on Marco.
- How do you frame things?

Web site suggestions.

- **You could put something interactive on the web site.**
- Needs to be **easy to access** information.
- **Bring them to it with presentations and working with staff.** We are a part-time council and have a strong city manager form of government. Staff does the homework. Include them in designing the web site
- **Email them when the site is updated.**
- **When you hear about an issue email them.**
- **Let them know what the site will do for them. Link to specific issues.**
- **Remind them the site is there. I often go but then forget.**
- Is a web site valuable
- Yes, be a **clearinghouse** for information for data, organizations and people.
- I spend hours doing research and this would be help.
- Have it **topically organized.**
- The bigger communities may do less personal research and depend on staff.
- The county is by district and may look at their area and not the big picture as well.
- When I think about a training that has both elected officials and staff, how do we design the material? Perhaps we can speak to both audiences.
- Sometimes staff has been there 20 years and the elected official may be there only 1-2 years.

- Need to look long term.

How do you do this?

- Talk to staff
- Something on your web site could help. **Have historical information on change over time. Particularly water quality or availability.**
- **Use GIS and aerial photography to show the changes. The Naples Bay pictures are a good example. We have resources at the Reserve.**

Do you have workshops?

- **We have workshops on pressing issues and they appoint ad hoc committees, e.g.** mooring fields. There is a role for CTPs in these.
- In Collier there is only Naples, Marco and Everglades so it is a little simpler.
- The County is concerned with a large area.
- We need to **get out there so they see our faces. Then they will be more likely to call us.**
- I wish more people would use the CTPs, they are wonderful.
- The web site will help staff present things to elected officials
- Another **problem in Florida is the sunshine law.** We can't talk to other elected officials. In NJ we could talk to each other. We got a lot more done.
- Is there a problem having more than one official in a training?
- There may be. You can always notice the training or field trip and make it open. There is a way around.
- Need to go with the flow.
- What about meeting with elected officials from neighboring jurisdictions?
- Yes that would be great
- You may want to talk to the **League of Cities** about getting on their conference agenda. They do small workshops and informational things and reach out to other areas.
- It was great to talk to island cities in the NW.
- **TS When we do best practices we try to bring in elected officials from other jurisdictions.**
- **When there are legal questions it helps to see that others have done things.**

Environmental and other concerns?

- We had the anchor issue and the result was not good and it will be challenged. There were legal and water quality issues. Having a **clearinghouse** of things that have occurred other places and how they handle them would help. How to wake them up is a good question.
- Southwest Florida doesn't consider the environment like in other places. People who come to Colorado are more attuned.
- Closing comments?
- As we develop the site would you be willing to look them over?
- Yes, if you want an uninformed eye.

Current Elected Official from the Apalachicola Area

1. It was interesting to see what people thought was important but that they may not be pursuing.
2. Aquaculture and freshwater and algal blooms were rated as important.
3. There was not a huge response.
4. There was a big difference between concerns about pedestrian/recreational and commercial impacts.
5. **Everybody thought everything was motherhood and apple pie. It is all-important but do they do anything about it?** I am interested in eco-tourism and it was one of the highest rated issues and needs more concentration. Enhanced decisions are important.
6. The CTP is the group that has done the best is on impacts of decisions on the environment, 92%. **Better decision tools and legal implications were important. This is what NEMO does.**
7. **Land development and stewardship is a great opportunity for education.**
8. The survey recognized that the CTP is most helpful in providing **fieldtrips**, 1-2 hour workshops and presentations at meetings. Presentations may be very interesting, but it is difficult to fit it in a big, crowded meeting. **OK at pre-meeting workshops** but not at a regular meeting. Regular meetings get long and they want to get on with it. Have a separate and segregated educational opportunity.
9. **Web site** – This is the way we do things these days, but on the other hand, it is not like an **in-your-face** presentation. It is important to do **both**.
10. You received no responses from planning commissions or boards. I was on planning boards up North and here. I was disappointed with the lack of response from them. They are very important. Find the chairman and have him send members hard copies of the survey or have them filled out at meetings. This may be better than dealing with the clerk. The survey is educational and increases their awareness of the issues and understanding of their importance. I have some city commissioners who care and others who do not.

How can CTPs work with planning boards?

11. We had a wonderful **program for zoning commissions** funded by St. Joe and put on by UF. We all went for 2 days. It is hard to get members to take that much time. I tried to get another educational program when I was leaving the board. I worked with Bill Mahan to get something through Extension. Bill didn't have a clue until he found someone who could help. He said it would cost \$5,000 and we didn't have the money. Only one Franklin Co. planning person came to the UF program. **There is a need for this.** I may think it is important because I am an ex-schoolteacher.
12. The question on collaborative issues needs an example, e.g. septic tanks and density increases. **It is important to address issues from different points of view.**
13. RK - We like to approach it from both sides.
14. **Rather than framing as "right or wrong" it needs to be treated as a "decision to be made."**
15. What kinds of impacts affect the economy? People do not understand this.
16. Pa 3 shows that **"clear, simple, data fact sheets"** are important. This is **one of the best things you (CTP) can do.**
17. This (fact sheets) is rated high but not as high as model ordinances. **Local attorneys don't want model ordinances because they don't get paid as much.**
18. RK - We could **post fact sheets on the web site**

19. "More scientifically verifiable data" is rated as important but **many say, "I have my mind made up, don't confuse me with the facts."**
20. **The greater impact should be on the analysis. Good data from elsewhere is ignored because it is not local. Some people just do not care.**
21. I am going to the forest meeting on ATVs and ORVs tonight. You can only try to have a
22. **Web sites can provide a place to put your research data and model ordinances.** I don't want to hear about model ordinances at a workshop; people just need to know they are there.
23. People said their most important issues were (80%) fish and shellfish and quality of freshwater flow. Only 30% were worried about boat pump-outs. They don't make the connection. 93% say wastewater is important but they are not interested in pump-outs.
24. I was fascinated with the low priority for artificial reefs. It is very important. [This may be lower because of inland respondents.]
25. **It is good to look at what is not important, not just what is important.**
26. No one seemed to see mangrove as important or salt marsh restoration. This shows the need for education about the interconnection of issues. The seawall issue didn't seem important to people. This needs to get to zoning people so they understand.
27. The upland issues are "motherhood and apple pie." Everyone says they are important.
28. See p4 3.c.1 shows that 92% want a better understanding of impacts on the community. The better understanding of the **fiscal impact on government was rated important by 92%. This is critical.** Make these links whenever you make a presentation or do a fact sheet.
29. RK - Relate it to the social issues too. Show the true cost of density.
30. **Explain what it means when you move from 1 to 6 units per acre.** We have a new school going in without knowing where the sewer treatment will come. I got the minutes from the Franklin Promise meeting and there was announcement from the school that they would connect to Eastpoint for sewer service. Later I learned that it might not be final. What will be the impact on density be?
31. **The issue of land development regulations doesn't get enough attention.** We are doing new ones with help from UF.
32. **Jackson County may not see that they have an impact on the estuary.** Education is needed. People do not understand what a watershed is either.
33. RK - Would it be good to **have a presentation on the web site at one of your meetings?** Yes. Give them a one-page web site map so they know what is there.

Debrief – Rosalyn and Tom

34. Good to have web map and fact sheets, be a circuit rider and go to the commissions.

Former County Commissioner

What is the best way for CTPs to reach elected officials?

- My experience as an elected official is that **partnerships are sexy**. They like it when they can show they are working with neighboring counties and the state. It may be to spread the blame or because it shows they are doing something about the big issues.
- You need an **overarching theme**, like “Florida Forever.” That has been a great term.
- Nothing works as well as a **field trip** and where they can see what the “environment” is.
- One NRLI practicum was on sea grass and **showed the impact** with aerial photographs.
- You are competing with so many other things for their attention.
- Invite them to something **where there will be other elected officials** on a field trip; it will be great. While you have them, **give them an example of what others have done and how it boosted the local economy**. They need to **see that doing the right thing for the environment is economic development and have the numbers to back it up**.
- **End the presentation with a picture** of people fleeing Miami with a hurricane and stuck in traffic. [On the NRLI alumni page].

Information, fact sheets, data?

- You have to **substantiate why you are doing something**, an executive summary. Why you are inviting them. What they will get out of it. For example, seagrass is critical to... Your County can be a leader.
- Invite them to **address ecological issues in terms of hazard mitigation**. There is interest and money around this.

Issues

- You need to **get into the decision processes at the standard setting stage**. I was on the planning board before going to the Commission. It is mind-boggling and **Commissioners don't understand comp plans well**. They get excited when they see things like seagrass impacts even if they don't know the comp plan. They may ask staff to suggest plan changes. They may try to learn but I have seen many give up. It is such cut and dry material. A discussion of 8 or 10 units per acre often has them doodling and not paying attention. It is easier to understand transportation.
- The **developers and agents know and have the facts** and officials are often overwhelmed.
- If Reserves have an attorney they can help. They can say what can be done and why. The elected officials are beat down by the county attorney and the developer's attorneys saying you can't do this or that. They need to know they are not out on a limb legally.
- **Use examples** from the Internet, of communities that have had **economic success because of environmental protection**.

Science and community concerns, objective science based decision-making?

- **Public access to the water** is a growing issue. **It needs to be a social argument**. Public places with access for the non-rich.
- **Have an environmental advisory committee** that has standards by which to evaluation questions referred by the commission. The **NERRs could be a source of advice**. Too often **commissions wilt before the developer's consultant PhDs**.

Web site for officials?

- Have **something very attractive to catch their eye, a kid with a net in the water**. More than a printed word.

State Agency Representative

Issues

- My focus has been on TMDL. We have requested participation of elected officials in the basin groups and as liaisons. Some elected officials work well with us and others don't engage at all. They may be too busy or not interested.
- Having a few key **advocates**. It is important if they can get some recognition with the **other commissioners**. In Marion County the commissioner has been able to **direct staff**.
- Gainesville is different than other cities and the mayor is an environmental engineer. The whole commission doesn't always support the environment as strongly.
- Commissioners come and go and the focus can change.
- Involvement in central Florida is different than rural counties.

Tell me more about building relationships with advocates.

- Some get in office because they ran on environmental issues.
- Find those who are receptive
- Get to know them one-on-one. Help them figure out how to present information and give them the facts they need.
- We have a relationship with Mel Kelly. We **can help her with her agenda and our agenda** at the same time; **not pushing our agenda**. It is like planting seeds.

How do you get officials to make the connection between the environment and decisions?

- Get basin groups to discuss **low-impact development**, LID, or call it **lake friendly development**. **This helps separate us from DCA and building issues**.
- We have agreements with local governments and MS4 permits.
- We haven't gotten into the LID too much but will have to grapple with this more.
- Hard to gauge reception, that is why we say Lake Friendly Development.
- **Positive activities are happening but they have not been labeled**.
- I am trying to figure how to bring this to my communities. I have relationships with government and this may be harder in rural areas that have had less development.
- Central FL has had a wakeup call. There is cry to save land that is left.

Please tell us more about the value of a label

- **Traditional labels may be negative, like "environmental protection."**
- Have a **label that links to economic value**.

Do you have any suggestions for the web site?

- The DEP web site design is restricted in what we can do.
- **Much of our postings are very technical and not easily accessible**.
- **There is not a focus on understanding issues**.
- I work with the Orange Creek Basin and they have been looking at a web site.
- We need to have a site that takes you where you want to go. **Need to be able to move smoothly to get what you want**.
- **I need to know that the information is accurate and updated**, especially for links.
- If it is for elected officials it should **have it's own entryway**.
- Need to have questions. **Think about why they would go to a site and have questions**.
- RK What about outreach to those who are not our advocates. What about going to commissions and tell them about the web site and that they can contact us personally.

- **You may want to go to their committees and workshops rather than to regular meetings.**
- The **WMDs have done a lot of model ordinances.** There are many **sources that are disconnected.** St. Johns has a lot of information.
- RK Some communities have consultants they don't like models because
- Pierce Jones worked with Sarasota County on low impact design. Developers have put this in their development. It is good for their sales.
- **Case studies are good. Testimonials** really help especially if they site the benefits.
- We have a lot of small communities in Lake County that have **contract engineers and planners.** It adds a layer because there is a commitment the city has to make.
- RK has been working with Franklin county consultants and use NEMO ideas.
- RK we have had good participation by consultants who want certification.
- **The regulatory hook of MS4 really helps get people involved.**
- RK most of my communities are too small. DEP has a list of communities that have to do MS4s.
- Phase 2 is not as clear because of population triggers. We can go from 10k down to 1,000 if there is an impaired water. MS4 deals with discharges.
- What do we focus on?
- **Focus on the advocates on commissions or respected groups like the League of Women Voters.**
- The capacity to deal with issues is greater in Central Florida than in rural areas and they have financial constraints.
- I haven't had TMDL activity in the panhandle. This will pick-up in the future.

Closing comments

- Coming in with TMDL or permits is different than coming in and talking about issues.
- RK are there ways to prepare them.
- We have worked with the **Stormwater Association** and we get people there. Often elected officials are not there. You get the staff and they are the ones who need to understand and present them to their elected officials. **If you don't have regular staff you have to deal with consultants but that may be difficult.**
- Because of what we are doing, keep us engaged so **we can be another link for your web site.** We have the CTPs on our mailing list.
- RK **it may be good to have TMDL people on their advisory councils.**
- Pat Fracano would be the person for Rookery Bay.
- We know who you need to deal with.
- St. Johns area is very political and it requires a lot more convincing.
- There is a concern that TMDL will make demands on them and they will have to deal with it.
- Areas that don't have traffic and development problems are hard to get involved. They need to have a reaction before they will pay attention.
- **RK It would be helpful to have a timeline for when TMDLs will be happening. We could lay this out for each of the Reserves.**
- RK will ERP be done by the WMD or DEP.
- I am not sure but eventually it will probably go to the WMD.
- **Keep me informed of trainings and how I can be of help.**

Private Consultant

- The way the issues came out makes sense. **Water quality is important.** We need ERP employees to do their job. It was nice to see this on top. **If you take care of this everything else takes care of itself.**
- **If you handle land acquisition and mgt well the land density and intensity just fall into place.** Get the correct things in conservation.
- They were all pretty important.
- It is interesting that **sea level rise is high.** It is high and low in ratings.
- RK NOAA is pushing us to get involved.
- There is an article that says more trees in the tropics help but not in the mid range.
- I struggle with **local officials is that they juggle so many things.** The more hard facts the better but **many are not trained to understand.** Some are well meaning but don't have the background.
- I have been personally thinking about what I would like to do as a volunteer it would be to do training that would help people not be suspicious of science and understand how to use it.
- The chamber might be a place to launch something.
- **Have allies and have people you work through.**
- With NEMO I don't have to be with DEP
- **Chambers and tourist councils are powerful.**
- A lot of people are in the middle on things and it doesn't matter which ways things go. The people on both ends of the spectrum are the hardest to reach. **Work on the people in the middle.**
- Work with advocates on a commission and help them.
- We have to **be careful about working with environmental groups; they may be a turn off.**
- You got decent response on the counties. There were problems with Gulf county
- **Chambers may have environmental taskforces** you could work with.
- RK Apalachicola waterfronts had an environmental committee.
- **The model ordinances and NEMO stuff is great.** How does it fit with ERP?
- RK It fits very well with MS4 and I'm not sure about ERP. It may be more working with developers. **Developers will only do what they have to do.** We may help them look more at the watershed level.
- There will be an operating agreement between the DEP and WMD on the ERP. Marinas will be marina or coastal DEP would probably do it and WMDs will do the other things.
- RK What about RPC and WMD boards?
- The local folks have the biggest impact and know the least.
- All the lots cleared have a big impact.
- **Enforcement is a problem.** Many seek forgiveness because it is cheaper than getting permission, especially if you don't get caught.
- Is there a way for CTPs to interface with the consultants?
- We charge more and don't work on the small projects.
- **Smaller consulting firms need help especially for ERP.** Many engineering firms just skip over it. St Joe had to do a lot for their project.
- We could work with Ann Lazar.

- **FLERRA would be a good group to work with.** Maybe the next conference could be up North.
- RK we did a presentation at the one this year. We could do something with the FLERA in the NW. They will have to bring elected officials up to speed.
- **Tie in with the economic development councils to show there is money in a quality environment. Hit them in their wallet.** Continue promoting good tourism.

What about the web site?

- **It needs to be clean and simple. Figure out what they are looking for. Have model ordinances and case studies. Politicians like to tell stories. Go to Sarasota County. Have links to scientific fact sheets, they look those.**
- We will do that for at least the top issues.

Other ways to engage.

- Many of them are volunteers and **they are worn out by all the workshops.** The elected officials may be worn out too. We had a chair that didn't like one of our projects and he kept us there until midnight twice.
- It is hard to know what to do. **It has to be an issue that is before them or brought to them by the EDC or Chamber.**
- There is a whole field of citizen science that I am just getting information on.

Regional Agency Representative

Issues

- It **varies depending on the community** as far as what is on the top. Environmental system management is lower than you think most of the time because **they think someone else is taking care of it.** LU is more important. Smart growth is a buzzword. DCA always brings sprawl up.
- **Planning Directors are struggling with LU intensity and sprawl more than water quality.** They don't give a hoot. It is not as relevant as things related to the comp plan or where they have to have a negotiated agreement with DCA or a developer. You can always get an environmental permit.
- Many communities **haven't benefited from growth and they want to get some.** Like Jackson Co. and small towns. I have worked with small towns with interest in realizing their potential. Same thing in Wakulla Co. DCA has kept them back. Now they are swinging to the other side. We helped them to do a needs analysis for residential. We sided with them before DCA. Then every property owner put in requests, the floodgates opened.
- **Water quality doesn't seem to be on their minds.**
- The springs in Wakulla is an issue and the County passed a new ordinance to protect the springs and deal with septic tanks. **They have an infrastructure committee.** They want to figure out how to do smart growth.
- RS is it the same for elected officials?
- I normally just read about this. I don't sit through all the meetings but see lots of small paper articles. An official in Jackson County said we need to study water quality, not do something. Turned down Blue Springs study. Wanted assurance that it is their problem.
- **Property rights seem to be more paramount for planning boards.**

- In Liberty and Calhoun, decisions are made by the Commission. They don't have planners. Tony Arrant is a consultant to them. The RPC helps with some issues.
- The elected officials seem to be more of the same mind-set. **If you have a planning board there is usually one person who raises environmental concerns. The Commissioners tend to support the developers.**
- We have had a turn over in planning directors in Gadsden and may be a change in Wakulla.
- **DCA interjects some of these ideas.** I bring up when there is a subdivision in a watershed because our strategic plan has that in it. They don't necessarily do anything with the RPC comments because we don't have authority. Our comments go to the government and DCA. We give suggestions. I don't get receptive feedback and requests for help.
- When you get into negotiating with DCA it is usually about road and infrastructure that don't relate to the impact of the project. It is just used as leverage to get action. DCA was pressured to settle. Citizens challenged the decision. The RPC board was OK with it.
- RS They called it sustainable but it wasn't.
- They have a treatment facility that has capacity to connect to this and other development. They were trying to get around DRI review. There were regional issues.
- They need to investigate the advanced treatment standards. Spray field standards don't apply in a spring shed.
- TT How do you help them?
- Turnover is a problem so there is a constant need to train and retrain.
- Something on a web site is important.
- **The workshops are excellent and are just one day and you can only have them once in a while. Need to capture the knowledge and have it available 24/7.**
- **Officials depend on staff and consultants for information. They feel like they are the arbitrator between staff and consultants. It is the result of the way project approval meetings are handled.**
- There is a **program for planning board members at UF** and Wendy Grey does these presentations for Gene Boyles. They may have some experience you could gain from. It is related to growth management for new commissioners and planning boards. It covers land use planning law and application. They could **refer folks to the CTP and CTP could use some of their materials.**
- **They may feel that they know what they need to know. They pride themselves on being able to grasp things in a few minutes.**
- I wouldn't ignore staff. They try to inform officials in most cases. Too often they just package the information they get from applicants. Not sure they even look at them. You don't have real time data on what has been approved so there is no analysis on cumulative impacts. **It is like a mill that just passes applications on because of this growth spurt.**
- Things are just starting to happen in Liberty and Gulf Counties. They have a format and they just go with it.
- Gulf county does some staff analysis. He has his own take on it. He does have an assistant now.
- **Use staff as a way to convey information to officials.** They may not think to ask about it.
- **You have good case studies but often site-specific information is needed.**
- RS we would like to create GIS layers and show impacts of build out.

- **Do this on a watershed basis and relate to specific projects.** The owner always has more information than anyone else. **Having real time watershed information and be able to show impacts of this and other subdivisions that have been approved.** If there is a request for a higher density they try to go along if there is infrastructure. Determine how much you can develop. I am not sure there is an answer.
- Some counties have a lot of public land and others have almost none, like Gadsden; only 10% is in open space. Then Franklin, Wakulla and Liberty have over 50% public land. They don't want to talk about protecting open space. Gadsden and Liberty can be adversely impacted by development. There are guidelines for open space for springsheds.
- If you can do this kind of analysis, it would be great. **The Arrow analysis is supposed to so some of this.** This could be an example. I would like to see the number of acres in woodland, and what is the impact of development. There has been some research on the impact of increased density.
- RS we are trying to get some **visualization resources.**
- The WMD may be able to help with environmental resource permits. DCA asks cities to address this but the rural areas don't have the resources.
- Level of service for drainage is supposed to be there. **Is there a LOS for the environment?** What about LOS for wastewater? Do you depend on DOH to control septic tanks? There may not be a LOS for the environment. **Officials are looking at LOS, if they are met; the project is good to go. They are missing the opportunity to negotiate and get more.**
- RS the information needs to be clear-cut and specific.
- It will be compared to all the information that the consultant has that says the LOS standards are met. It may not be smart growth even if the LOS is met. We want the developer and the community to meet high levels of standards.
- RS the survey talks about the importance of **economic impacts.** Is this important?
- **DCA is working on FIAM with the RPCs.** It was rolled out before it was complete. We had some workshops. Bruce Ballister here did the workshops. Fishkind uses a spreadsheet to keep track of the taxes, expenses and fees and impacts. It goes into schools, police and fire, etc. but has to be calibrated for the county including Gulf and Liberty.
- Many don't charge impact fees. Now they are looking at proportionate share that charges the developer for schools and transportation impacts created by their projects. Counties have to implement it.
- RS we are looking at **economic impacts.** Is this important to officials?
- These **are externalities that are not often considered.**
- We have regulated to keep people from taking more than they are allowed. Even the best projects have impacts that will not be mitigated.
- **In some cases you can put a price on it. Then elected officials will act on it.** In Tallahassee officials have recognized the impact of the spray field and are doing something. We will never get back to pre-Columbian conditions. We are getting better tools and information on economic impacts of development.
- **Something is out of whack with how we do land use planning. We don't look at carrying capacity. Growth management just tries to get infrastructure in place.**
- Franklin Co. is a good case study. The way it is going is it going to be the disaster some predict. Relatively, the proposed development will be fairly balanced. You can do PUDs and there are a lot of vested lots and the board of adjustments allows variances.

- We don't track this on a regional basis that is a local thing. Most are small-scale amendments. There is a cap for the total per year.
- If plans are good, there will be few LU changes, just zoning changes.
- There have to be community support for the status quo like Captiva Island or **Long Boat Key**.
- RS It shows that **people are willing to pay more for quality**.
- St. Joe will release the land slowly to keep prices high in Franklin and Gulf Counties.

Suggestions for the web site

- **I use the Arrow site and it is good.** It was a NOAA project. Link is on FNIA site.
- We can learn from each other. **Have cases studies** in Gulf and Franklin County. **The RPC could help** with this. **Show what peers** in and out the region **are doing**. This is one of the purposes of an RPC and having board members talk to each other.
- **DCA's website has been getting better.** They have guides and case studies they have funded and posted.
- **Have something on site plan approvals.** There are somethings available from professional associations.
- The League of Cities and Association of Counties are sites they go to. Have links.
- Conferences have resources
- **Lincoln Land Institute has good materials.**
- Green Building Conference combined elements not seen at other places. UF has an outreach program. RS is setting up something here. Sarasota County has adopted principles and ordinances.
- Steve Seibert and the **Century Commission are looking at the big picture.**
- We tried to bring **Vision Jackson** back but I am not sure it got us to a clearer vision. There are tiers of visioning we didn't go to. We had infrastructure as a specific focus.
- The **visioning work may offer hope** to take you the next step in the comp plan process to get to the place **where you know when to say "no."** Time goes on. How much is too much in one year? Tallahassee has been more linear. Other places are having spurts. How do you handle these?
- Monroe Co. had **rate of growth ordinance**. People had to get in line. It had a basis in wastewater capacity.
- I discovered the value of vegetation from Rosalyn's workshops. What happens when St. Joe clear-cuts a huge area? It shouldn't be just big developments. **Look at incremental impacts**. It takes time to grow back. They say they meet minimum runoff requirements. With grow back you may get some benefits. We are blessed with the way plants grow.
- Trees around residents are good but there are concerns about storms and fires.
- The problem is the guy who just wants to sell a few lots. The sustainable sub-division may not have much of an impact.
- There are studies that show that living far out is saving you money. It may bring people in closer. Jefferson is next, especially if the commission changes. We don't work as a region
- **Thanks for having great programs and speakers in Apalachicola.** I hope that more people will come.

Four State Agency Representatives

- LG We looked at the results and had some questions.
- **Why did you only target elected officials?** Do we already know what they think? Others could help you think about it.
- You could have asked staff what they think is needed to deal with elected officials.
- Could you have had a better return rate?
- TT explained some of the challenges and what we did.
- **Is the low response an indicator of their interest?** Will they have a similar interest in future outreach? Will your outreach be to 3 or 15 counties or the whole state?
- [We clarified which counties were involved]
- Is the web site the only approach to reach the elected officials?
- [We explained the broader approach including one-on-one and presentations.]
- What will be on the site?
- [We explained the design approach and possible content]
- How will you market the web site; **what is the implementation plan?** [This was explained]
- **What can you do so they will use your resources when they have an important development issue or a management plan?** You want to help influence their decisions. They are not going to have a natural inclination to call you.
- TS I have had the same concern. Our performance measures are about active results. This provides us a training resource and increases our visibility and a place to put all the work we have done for years. We have things in the drawer that could be made available.
- LG no one has any hesitation about the value of the web site. I spend lots of time getting up to speed on the Internet. Sherry talked about the value of **on-line conferencing** when you do workshops or special meetings.
- TS – Tell me more about that.
- LG There is conferencing done now with power-point presentations on the computer screen and audio by telephone. It is interactive. You push a button to raise your hand and join in the conversations.
- TS **What do you think about putting it on the DEP or Reserve sites?**
- LG Where is NERR information now?
- TS there are three places, DEP, RB has a friends site and NOAA.
- Does it matter where it is? The question is who has the best staff to keep it up to date?
- TS DEP takes time to get things up to date.
- **Presentations, who are the specified officials?** [This was explained]
- Who is the CTP program directed too?
- TT **What is the best way serve elected officials?**
- Reach them on **all levels**. Go to the Regional Planning Councils, **RPCs**. Go to **annual meetings** and get the word out to the larger community. Create an **on-line session**. Do it with them for some of the small co and do it at a conference.
- Just have teleconferences that will be less high tech. Send an email and invite them and let them send questions later.
- If the use of the site is issue driven and general background driven. There may be more interest when there is a **hot issue**. Ask them to **go to your web site**. Don't want to lobby but

to get relevant information needed for decision-making. We want to protect our coastal managed areas.

- TS It is getting to our next step. Part of what we think about is **how to organize the web site**. Be sure we cover the **topics that are important to us**. Say it in a way that will be meaningful to them and their staff.
- LG You can **present information clearly** so they make the right decision **without telling them how to vote**. You don't say the area is in trouble because of the Wal-Mart. Show how it pays to do the landscape right. Present it in a way that they make good decisions. Have case studies that show the practical real world effects, especially that it is **cost effective**. Show how it **sings to their pocket book**.
- TS We try to use economics in our stuff. One thing that came out of the survey was to have better economic analysis. In Collier Co. **beaches and boating are a billion dollar industries**.
- TT [explained our proposed efforts]
- LG **Don't give them too much to dig through**
- There is another side to boating, our golden child in FL. **Boats** are the vector to people enjoying the environment but they also need slips and parking places. It is also trending toward SUVs of boats. It is becoming **a monster of an issue**.
- **We would like the web site to help us market our boating characterization methodology tools** with FWRI. We are looking for export markets for use of these tools by local governments. They did a pilot in Charlotte and Lee Counties and worked on economic and impact analysis. Then they worked with Venice to put it in their Comp Plan. Other counties have heard about it and are lining up to be involved. As they do this, we are talking to other entities to see how to publicize this, like the Waterfronts Program at DCA. There was legislation to help local governments put things in their comp Plans.
- TS Put Collier in line for this. We had a meeting on Monday on boating. Bob Swett has been on this project with us.
- LG Bob knows all about this and may be helping Collier.
- TT This is an example of how the proposed approach can be applied to other issues.
- LG NOAA is working on resilient communities, we call it hazard mitigation. They are ready to help with models economic analysis and technologies to work with local communities.
- **We need to balance face-to-face plus the web site; high tech - high touch.**
- One way to marry this is to have a highly visible chat where officials can ask a question and get a response. It would also help to see if you are directed to the right issues.

Federal Agency Representative

Issues?

- There was only 12% **response rate**. How statistically significant is the response? It is reasonable to focus the web site on top issues. [We explained this situation]
- Many of the **issues are interdependent**. You can focus on land use and relate it to water quality and downstream impacts.
- This will be a work in progress.
- The **web site will be dynamic and be able respond to new needs** that arise.
- When we develop good products, we can put them on the web site. It is also a marketing tool.

Any insights on the issues listed?

- These are the big issue.

What are the best ways to engage officials?

- Rookery Bay has been one of a few that have reached out to elected officials
- The **State of the Coast was a great workshop**. It was a summary of coastal zone workshops. They reviewed the body of science at a local level. There will be another one coming up that will be linked to the Gulf of Mexico project.
- They are captured for a day, to brief them and have dialogue.
- They want **sound bites**
- Discussing specific sound bites may not be appropriate for this discussion.
- We need to think about **what will get them to the web site? What will keep them at the site?**
- What about **working economic ideas into the sound bites**. Give them important facts like boating is a billion dollar business dependent on the water quality.
- Staff will use the information more. Have ways for them to contact us for more information.
- **Staff can help you find the right words** for relating to officials.
- TS We may want to have a group of supportive **staff to review the web design**.
- We don't have in-house marketing talent.
- If you want to engage me, **I want to be with others like me, with the same status** (Other elected officials).
- The web site will be a great tool but it will be used most by staff.
- Rookery Bay has great relations with staff
- Have a way to find out who is using the web site. **Make it easy for users to post comments and questions**.
- Need patience to work with elected officials
- The plate is full you can only do so much
- **Track the hits** on the web site and see what people are using and **adjust** to better meet those needs.
- TS We are going into this with great hopes. Web maintenance is an on-going obligation that can be time consuming.
- It sounds like this will happen at the DEP page.
- We have a friends site at Rookery Bay. We haven't decided on the where the proposed site will be. Updating will be a challenge.

- TS Do you have a bigger picture of putting information like best management practices up on the web. Will this be useful? Any national trend perspective?
- Lots of programs have done this. We are **revamping our National site** next year with link to specifics for the Reserves. It is always a challenge as to what we have here and what are on local sites. The key is getting people to look at the site and not having a lot of things on the shelf that no one looks at.
- There a gazillion web sites. **Why would they go to ours?** Where do they go now? We don't want to be duplicative.
- I don't know what it means to revamp the site. We want a new face on the page and to find ways to better reach specific audiences, areas or issues. I don't know what George has in store.
- **RS How can we link with others?** Everyone is coping with TMDL issues. There are not national guidelines. How can we support EPA and local communities with ways to deal with water quality?
- It will be interesting to see how this evolves and how it can be marketed across the system
- Thanks for including me and asking for my input.

County Extension Representative

Issues

- I got the summary and survey and have a couple of questions.
- I am concerned about having a single source for resources, the website as a one-stop source. The three regions have different priorities and needs.
- The issues that were identified are lumped together for the three regions. GTM has specific issues like beach renourishment. In Rookery Bay is concerned about freshwater flows.
- I am concerned that **we may loose sight of the needs of each area.**
- **The number and sources of responses from GTM skews the results.**
- We had 6-7 responses from St. Johns Planning Department, which is a large portion of the total responses.
- In the GTM survey the preferred format is fieldtrips.
- [Tom explained that the final results had field trips come out as the most important.]
- **The CTP coordinators should take these results to their advisors and talk about what needs to be done.**
- There was a similar needs assessment done of the agency folks about 2 years ago. The CTP Advisory Committee was involved with the design of the survey and then the Coordinator left. I am not sure anything happened with the survey. Marty didn't know anything about it.
- We haven't had a meeting of the CTP Advisory Committee since Marty came. We have many contacts with the elected officials and could help get contacts elsewhere.
- **It is not surprising that these all rate highly. They are all impacted by growth.**
- **Other agencies and groups better address some things like the WMD helping with water supply programs. CTP can provide links and referrals. The CTP Advisory Committee can really help here.** We have agency folks on the CTP Advisory Committee.

Web site

- **Use someone with a communications background** to help with the website. **Some are horrible and DEP's is one of them.** It is hard to find documents. Communications and website experts can really help. Hire a consultant if there is not someone on staff.
- Decision makers have very little time. **If they don't find it quickly they won't come back.**
- You need to get what you want in **three clicks or less.** Balance that with how much is on a page.
- I would envision something **organized by topic area, like beach renourishment, there will be a link with sample ordinances, resource materials, contact people (this important for staffers)** Want to talk to someone who developed an ordinance or other resources. This is difficult to find on DEP site. It is hard to maintain because people change.

How can the CTP best work with elected officials?

- **Tap into your CTP Advisory Committee** and use existing positive contacts to have introductions made.
- **It helps to have someone with a good relations with a commissioner suggest attending a training or calling for assistance.** We had a commissioner attend one of my programs at GTM. She is more receptive Sea Grant and NERR.
- How do you make a difference
- **They are influenced by citizens. You can talk to and work through those who are influential. They overwhelm staff fact-based information.**
- Work with **organized groups like the St. Augustine Civic Association** and one in St. Augustine beach. They invite speakers and **Marty could do a presentation.** Be a resource person for their group. Provide examples of what has worked elsewhere.
- It is appropriate to **be a guest speaker at Audubon, Sierra or St Johns River Keepers.** They are more advocates than I am comfortable but I can be a resource to them. We want everyone to have accurate information. **They have pull with the politicians.**
- What about the **economic development groups?**
- There **may not be much of an opportunity** in St Johns and Duval Counties. We have a birding event we do with the Visitor and Convention Bureau.
- I haven't worked the Chamber.

Research Reserve Representative

Opening thoughts?

- I have been aware of the project and have looked over the literature review and the research results.
- Overall it has been a good process.
- **Elected officials are a critical target audience** for our agency.
- It is a **tough audience** because of their **time constraints** and **a lot to consider.**
- I have looked at the seven summary statements and strongly agree with #3 about **how decisions are not made by science alone.** This is clear from throughout my 25 years of experience.

- Elected officials have lacked accurate, timely science information but there is no expectation of using science alone. **They always have to also consider economic, citizen and other impacts.**
- It is important to put CTP activities in the broader context in which they make decisions. I can't emphasize that enough.
- **Elected officials are driven by what constituents want** so we have to consider that.
- Some of the same considerations for **economics drive land use decisions.**
- They want to **sustain economic growth or at least remain stable.** We have to constantly keep that in mind
- The environment alone will not drive decision-making. Science is a part of it. **Be thoughtful in how we present the information.**

Are there other insights you want to comment on?

- I agree that different problems require different approaches and expertise.
- **Elected officials are interested in how other communities have tackled similar problems.** Avoid the process of reinventing the wheel. CTPs can draw from the entire NERR system, other parts of Florida or the country. Apalachicola NEER has had a problem and this is how they addressed it. Elected officials appreciate hearing about what is going on in other communities. They lack these connections. They tend to be insulated. We need to present tested models.
- The point about **regularly scheduled meetings and workshops is important.** CTP should fit into meetings already on the schedule rather than special workshops where we want a large turnout. There are **legal sunshine constraints.** There is a lot to be gained from group settings that encourage discussions. **It is good to convey information in-group settings.**
- [I explained that the concern about busy schedules was about their business meetings not their workshops and the problem of debates between experts and attorneys in formal meetings that force the officials to be arbitrators. The value of the workshops is that they can be more deliberative.]
- The “**State of the Coast**” workshop a couple of years ago, was for elected officials. It was successful but it took a lot of work. There was a ½-day conference plus a ½-day field trip on boats after lunch (1/2 attended). There were 70 officials including federal, state and local officials. We worked hard to have the science presenters to bring down their messages to key points in a straightforward format. We did a **dry run with a test audience of former officials.** They told us **we were horrible and we should start over.** Response from attendees was that this was the **best presentation they had ever had.** This is best done every 2 years, not more often. It takes a lot of effort. Put strategic thinking into the effort and decide if it is worth it in terms of results. If you fail you can lose the opportunity to work with them in the future. Can't afford to have this happen.
- **What ever we do has to be well thought through.**

What about 15 minute presentations to commissions [or at conferences]?

- **We need to have a website that promises access to timely and accurate information.** We have to be able to deliver and keep it updated. They will determine if it works for them.
- We must **assume no prior knowledge.** They may appreciate something like a page on red tide where they can get basic information.

How detailed should information on the website be?

- Provide information that **gives a basic understanding**, not lots of data.
- It is likely an elected officials will **feel unwilling to ask a question in a public setting** because they don't want to look like they don't know something. A **website can be a safe place** to get good science based objective information.
- Elected officials are **interested in working with CTP if we can provide accurate science-based information**. We cannot afford to get information from an **advocate organization**. We need to acknowledge that science does not always have the answers, e.g. red tide. There will be **constituents and special interests that are trying to skew the information**. If we make a mistake, we need to acknowledge it. It will affect our reputation.
- We need **guidelines for the website regarding links**, etc. We may decide to only use public sites that **insure their accuracy**. We may need a **disclaimer** about other sites. The **trust** issue is a big one.
- **TS Maintenance** is a big concern. We have an opportunity to try it.
- **Websites that provide a basic understanding of coastal issues don't exist. This is what we need to focus on.**
- **Use a FAQ (Frequently Asked Questions) format with bulleted answers and graphics.**
- I would encourage the use of **visuals as much as possible**.
- An elected **officials will have 10 -15 minutes to learn about red tide**.
- **TS You are getting me excited. I research red tide all year long. We read everything and we boil it down to the key points.**
- I have talked about putting the 20 landscape ordinances we have on the website.
- There could be a **page on landscape ordinances that just says what they address and the benefits in economic terms with links to the ordinances and contact information**.
- Show what other communities have done with landscape ordinances.
- **Capture a domain name** for us.
- **DEP site may have problems**.
- **TS we are considering using the rest of the grant money to hire a web consultant.**
- We may be better off with **an independent web site**. We can get the domain name like "elected officials.gov" Need to convey what you want to accomplish.
- It is a great idea to **get a professional web site or marketing people** involved.
- We are **competing with a lot of websites** that is trying to capture the visitor. Needs to be very user friendly.
- Need opportunities to include **economic valuation** and comparisons to benefits of development considered by officials. Help them look at the **long-term consequences not just the short-term gain**.
- There may be times with a web site for **someone to slip into an advocate role**. We may want to have some kind of **panel to review** the topics on the web site. Some staff may be environmental advocates and come across as too strong. A peer review process.
- Peer review processes have problems. There is a crisis in science.
- **Use the Advisory Council** to review the site design
- Other services
- You may not be able to get to entire boards, failing that **going to targeted individuals is good**.

- **First efforts should be directed to the commissions as a group because of the benefits of group dynamics and to address sunshine issues and time constraints.**

Appendix K

Compilation of Interview Notes and Advisor Comments

A summary of the insights from the literature review and the results of the survey were sent to advisors for each of the Coastal Training Programs for comment. Responses were received from five advisors. The summary was also used in a series of interviews with three current or former elected officials and nine representatives from CTP partner organizations.

The consultant highlighted the key points in the comments and interview notes (See Appendix J). These were integrated in to the document below. This product was then further synthesized into a list of insights included in the needs assessment report and used in development of the website design, implementation plan and needs assessment recommendations.

Comments on Issues Rated in the Survey

- They [The issues] were all pretty important
- It is all important, everything was motherhood and apple pie but they don't do anything about it.
- Many of the issues are interdependent. You can focus on land use and relate it to water quality and downstream impacts.
- They talk about environmental impacts but not the big picture
- The county is by district and may look at their area and not the big picture as well.
- Jackson County may not see that they have an impact on the estuary. Education is needed. People do not understand what a watershed is either.
- Planning Directors are struggling with LU intensity and sprawl more than water quality. They have to have a negotiated agreement with DCA or a developer. They can always get an environmental permit.
- Officials don't think of growth in terms of environmental quality.
- Officials think someone else is taking care of environmental issues.
- Property rights seem to be more paramount for planning boards.
- The issue of land development regulations doesn't get enough attention.
- It is good to look at what is not important, not just what is important.
- Water quality is important. If you take care of this everything else takes care of itself.
- If you handle land acquisition and management well, the land density and intensity will just fall into place.
- The interest in land development and stewardship is a great opportunity for education.
- The better understanding of the fiscal impact on government was rated important by 92%. This is critical.
- Public access to the water is a growing issue.
- Low-impact development, LID, is a buzzword. We call what we do lake [or bay/beach] friendly development. This helps separate us from DCA and building issues. Communities are doing good things and giving them a label can enhance their recognition and expansion. Traditional labels may be negative, like "environmental protection."

Comments on How Local Officials Use Science in Decision-Making

- It is a tough audience because of their time constraints and a lot to consider.
- Local officials are that they juggle so many things. They are worn out by all the workshops.
- Decisions are not made by science alone. They always have to also consider economic, citizen and other impacts.
- It has to be a hot issue or be brought to them by the EDC or Chamber to get their attention.
- They need to see that doing the right thing for the environment is economic development and have the numbers to back it up.
- Officials want quick answers to complex issues
- The more hard facts the better but many are not trained to understand them.
- They may feel that they know what they need to know. They pride themselves on being able to grasp things in a few minutes.
- “More scientifically verifiable data” is rated as important but many say, "I have my mind made up, don't confuse me with the facts."
- What is important to the officials will be what's coming from their constituents.
- Elected officials are driven by what constituents want.
- Economics drive land use decisions.
- Scientific information might not always be their main priority (unfortunately).
- Science is a part of it. Be thoughtful in how we present the information.
- We did a dry run with a test audience of former officials. They told us we were horrible and we should start over. We did and the response from attendees was that this was the best presentation they had ever had.
- Commissioners don't understand comp plans well.
- Officials depend on staff and consultants for information. They feel like they are the arbitrator between staff and consultants. It is the result of the way project approval meetings are handled.
- The developers and agents know and have the facts and officials are often overwhelmed.
- If you have a planning board, there is usually one person who raises environmental concerns. The Commissioners tend to support the developers.
- DCA interjects some of these ideas [smart growth].
- Need opportunities to include economic valuation and comparisons to benefits of development considered by officials. Help them look at the long-term consequences not just the short-term gain.
- The greater impact should be on the analysis. Good data from elsewhere is ignored because it is not local. Some people just do not care.
- The regulatory hook of MS4 permits and TMDLs really helps get people involved.
- Development review is like a mill that just passes applications on because of this growth spurt.
- Officials are looking at levels of service, LOS. If they are met, the project is good to go. They are missing the opportunity to negotiate and get more.
- We have workshops on pressing issues and they appoint ad hoc committees, e.g. mooring fields.
- What can you do so they will use your resources when they have an important development issue or a management plan?

- Economic impacts are externalities that are not often considered.
- In some cases you can put a price on environmental impacts and then elected officials will act on it.
- Something is out of whack with how we do land use planning. We don't look at carrying capacity. Growth management just tries to get infrastructure in place.
- If you don't have regular staff you have to deal with consultants but that may be difficult.
- Another problem in Florida is the sunshine law. We can't talk to other elected officials [including actively participating in trainings on current topics].
- They like it when they can show they are working with neighboring counties and the state.

Suggestions for Providing CTP Services to Local Officials

- Have allies and have people you work through. Chambers and tourist councils are powerful. Chambers may have environmental taskforces And League of Women Voters and the FL Stormwater Association.
- Cultivate a few key advocates. It is important if they can get some recognition with the other commissioners and are able to direct staff. Help them with their agenda [and ours]; not pushing our agenda
- Work on the people in the middle not the extremes.
- Be careful about working with environmental groups; they may be a turn off.
- It is appropriate to be a guest speaker at Audubon, Sierra or St Johns River Keepers. They are more advocates than I am comfortable but I can be a resource to them. We want everyone to have accurate information. They have pull with [some] the politicians.
- The model ordinances and NEMO stuff is great
- Smaller consulting firms need help especially for ERP (Especially rural government consultants)
- FLERRA would be a good group to work with.
- Tie in with the economic development councils to show there is money in a quality environment. Hit them in their wallet.
- They want sound bites. Work economic ideas into the sound bites.
- You need an overarching theme, like "Florida Forever.
- Traditional labels may be negative, like "environmental protection." Have a label that links to economic value.
- Focus on efforts to work with each commission as a group because of the benefits of group dynamics before resorting to just advocates. This will also address sunshine issues and officials time constraints.
- It is good to convey information to officials in group settings (their workshops). The value of the workshops is that they can be deliberative [This allows a different level of learning].
- Invite them to a field trip where there will be other elected officials.
- How do we get others to come to a field trip? It takes a personal outreach.
- Get officials out in the community and witness issues first hand; continue developing programs that actively involve elected officials; don't just lecture to them
- Give them an example of what others have done and how it boosted the local economy.
- You have good case studies but often site-specific information is needed.
- End the presentation with a picture of people fleeing Miami and stuck in traffic.

- You have to substantiate why you are doing something, an executive summary. Why you are inviting them. What they will get out of it.
- Explain what it means when you move from 1 to 6 units per acre.
- Having real time watershed information and be able to show impacts of this and other subdivisions that have been approved. The Arrow analysis is supposed to do some of this.
- NERRs could be a source of advice and a place where commissions refer questions. Too often commissions wilt before the developer's consultant PhDs.
- There is a program for planning board members at UF and Wendy Grey does these presentations for Gene Boyles. They could refer folks to the CTP and CTP could use some of their materials.
- Regular meetings get long and they want to get on with it. Have a separate and segregated educational opportunity.
- Use staff as a way to convey information to officials.
- Clear, simple, data fact sheets" are important. This is one of the best things you (CTP) can do.
- Local attorneys don't want model ordinances because they don't get paid as much.
- DCA is working on the fiscal impact analysis model, FIAM with the RPCs [There is a possibility that environmental factors could be added to this analysis].
- Offer on-line conferencing when you do workshops or special meetings.
- Go to the Regional Planning Councils, RPCs. [Their boards have representatives from different cities and counties]
- Go to annual meetings that officials attend like the League of Cities and Association of Counties.
- It may be good to have TMDL people on their advisory councils.
- There is a need for a program for zoning commissions.
- It is important to address issues from different points of view.
- Rather than framing as "right or wrong" it needs to be treated as a "decision to be made."
- You can explain that when you are going to do a comprehensive plan amendment this what CTP can do.
- A larger connection can be made with the policies relating to 9J5 requirements for coastal communities and the impact on these areas (growth issues). Overall, a concentrated effort should be made to link the planning decisions with the science-based issues.
- Link the planning decisions with the science based issues.
- A handbook or phone book of resources (e.g., information sources, agencies, with contact information, etc.) indexed by topic or issues, I think, would be highly valued by many municipal and county employees/officials, if it were accurate and kept up to date. I have heard this repeatedly from folks in the field who grow frustrated when calling all around trying to get information from state officials.
- The CTP coordinators should take these results to their advisors and talk about what needs to be done.
- Other agencies and groups better address some things like the WMD helping with water supply programs. CTP can provide links and referrals. The CTP Advisory Committee can really help here. We have agency folks on the CTP Advisory Committee.
- Tap into your CTP Advisory Committee. It helps to have someone with a good relations with a commissioner suggest attending a training or calling for assistance.

Suggestions for a Web Site

- Have something very attractive to catch their eye, a kid with a net in the water.
- The workshops are excellent and are just one day and you can only have them once in a while. Need to capture the knowledge and have it available 24/7.
- Let them know what the site will do for them. Link to specific issues. Remind them the site is there. I often go but then forget. Have it topically organized.
- Obviously, the more user-friendly/jargon free the better and, possibly,
- K.I.S.S - provide information to officials that will be easy for them to understand and utilize.
- It needs to be clean and simple. Figure out what they are looking for. Have model ordinances and case studies. Politicians like to tell stories. Have links to scientific fact sheets, they look those. Don't give them too much to dig through. Boil it down to the key points.
- Organize by topic area, like beach renourishment, then have links with sample ordinances, resource materials, contact people (this important for staffers). They want to talk to someone who developed an ordinance or product. This is difficult to find on DEP site.
- Use a FAQ (Frequently Asked Questions) format with bulleted answers and graphics.
- Decision makers have very little time. If they don't find it quickly they won't come back; 3 clicks or less.
- DEP postings are very technical and not easily accessible. There is not a focus on understanding issues. Need to be able to move smoothly through the site to get what you want. Think about why they would go to a site and have questions.
- Have cases studies. Show what peers in and out the region are doing and get testimonials.
- Use examples of communities that have had economic success because of environmental protection. Show how it sings to their pocket book.
- Show the practical real world effects, especially that it is cost effective. In Collier Co. beaches and boating are a billion dollar industries.
- Have historical information on change over time. Particularly water quality or availability. Use GIS and aerial photography to show the changes, like the Naples Bay pictures.
- Create scenarios that would demonstrate the different approaches that may be used to address the situations.
- We could post fact sheets on the web site
- In terms of content, perhaps bibliographies of topical resources, information on sources of technical assistance, etc.
- Have something on site plan approvals. There are some things available from professional associations.
- We cannot afford to get information from an advocate organization. We need to acknowledge that science doesn't always have the answers, e.g. red tide. There will be constituents and special interests that are trying to skew the information. We need a peer or advisory committee review to protect the site from over zealous groups or staff members. Trust in the neutrality of our website is critical.
- Elected officials feel unwilling to ask a question in a public setting because they don't want to look like they don't know something. A website can be a safe place to get good science based objective information.

- Provide officials the opportunity to exchange dialogue with scientists as well as other officials. (Give them the opportunity to share what is/isn't working in their communities and offer each other advice/ assistance) You could put something interactive on the web site.
- Provide interactive training modules.
- The modules can be based on sub-topics within a larger core – e.g.

Growth

Smart growth

features of smart growth (text material)

Simulation exercises to create a smart growth community

Scenarios that identify/implement features of smart growth

Policy workshops that can assist in designing policies

related to growth (follow-up for the topic)

Sprawl

features of sprawl

Simulation exercise on sprawl

Planning analysis of impacts of sprawl

Policy workshops to assist in developing policies to control sprawl

- Attach Q & A to the website – quizzes that may serve as an evaluation tool for both the official and the CTP coordinator.
- Make it easy for users to post comments and questions.
- Track the hits on the web site and see what people are using and adjust.
- There a gazillion web sites. Why would they go to ours? Where do they go now? [Can we get links there?]
- We are revamping our National site next year.
- I use the Arrow site and it is good. DCA's website has been getting better.
- If it is for elected officials it should have it's own entryway.
- Lincoln Land Institute has good materials.
- We would like the web site to help us market our boating characterization methodology tools with FWRI.
- Web sites can provide a place to put your research data and model ordinances.
- As for website suggestions, I should think that thoughtfully constructed links to assorted issue resources that cut to the chase with "best management practices" up front coupled with more detailed info re the whys and wherefores for these practices and example ordinances etc. that can be burrowed into would be most effective. Most elected officials are not good at, or have time for, deciphering all the technical factors that need to go into the broad range of decisions they need to make. The "lobbyists" help them with this as well as staff, so I think that easily-digestible, fact-sheet type CTP info is critical for guiding wise management decisions by this sector of coastal decision makers.
- If the site HAS to be embedded in the FDEP site try not to bury it too far or make it cumbersome to access. It will have to be easy to use.
- I'm just wondering if there might be some way, perhaps a comments section or evaluation section on the webpage, to allow for an adaptive approach to information/issue assessment in the future.
- The website and content, should be monitored, revised and updated often.

- I would also highly recommend inviting a few non-technically savvy, local politicians or staff persons to poke around on the site and provide some feedback before calling it done.
- Communications and website experts can really help. Hire a consultant if there is not someone on staff.

Suggestions for Promoting the Use of the Website.

- The League of Cities and Association of Counties are sites they go to. [Have links.]
- We need to balance face-to-face plus the web site; high tech - high touch.
- You may want to go to their committees and workshops rather than to regular meetings.
- When there is a hot issue, ask them to go to your web site.
- Have a presentation on the web site at one of our meetings.
- Consider a 10-minute presentation on what we can do for you.
- Bring them to it with presentations and working with staff. Email them when the site is updated. When you hear about an issue email them.