

STRATEGIC ASSESSMENT

for the
ALBEMARLE-PAMLICO NATIONAL ESTUARY PROGRAM

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Executive Summary

The Albemarle-Pamlico National Estuary Program (APNEP) contracted with the NC Cooperative Extension Service to conduct a strategic planning process. Cooperative Extension staff from the Natural Resources Leadership Institute (NRLI) and Watershed Education for Communities and Local Officials (WECO) comprised the Assessment Team. The initiation of the strategic planning process began with an assessment of the program, which is the subject of this report.

The Strategic Assessment involved gathering perceptions about APNEP structure and implementation processes from the five Regional Councils, the Coordinating Council, APNEP staff, and other non-council stakeholders. The Assessment Team interviewed as many stakeholders as possible to identify current strengths and weaknesses, emerging and priority issues, and opportunities to help guide the program to improve its effectiveness. The team reviewed the information in order to clarify the results and formulate recommendations to address the issues and design a strategic planning process. The assessment also involved a review of relevant literature.

The Strategic Assessment is a qualitative analysis of respondents' views. It summarizes general perceptions of agreement and differences. It also captures the respondents' suggestions.

Overall, perceived barriers to program success include: lack of funding, lack of participation, lack of Regional Council empowerment, lack of agreement on the APNEP mission, a strictly prescriptive Executive Order, poorly defined roles, an increased need of coordination with other programs, and a lack of evaluation mechanisms for determining program impacts.

Factors that support program success include: stakeholder enthusiasm and personal obligation to the environment, the work of APNEP staff Joan Giordano and Bill Crowell, employers who support council members' participation, good communication between APNEP staff and councils, and council members themselves.

Some hopes for future successes mentioned by respondents include: improving water quality, improving habitat, improving associated benefits such as tourism; improving participation at council meetings; implementing CCMP strategies; encouraging environmental education, increasing public stewardship; and working with other programs to monitor APNEP impacts.

APNEP has a number of changes currently being instituted as a result of 2000 program evaluation by the US Environmental Protection Agency. These changes include the establishment of additional staff positions, a change in the location of the program within NCDENR, and the creation of a new technical and scientific committee. Many of these changes have already occurred, although since they have just recently been implemented it is too soon to determine the impact that these changes will have on the effectiveness of APNEP.

Even though the impacts of the recent programmatic changes are not yet evident, the Assessment Team recommends exploring additional changes to revitalize the public involvement aspect of APNEP. Based on the potential problem areas, the Team recommends involving council members and APNEP staff to identify actions to improve program operation. The Team suggests APNEP staff work with Regional and Council Members at a planning retreat to discuss and agree upon key issues. These issues include: APNEP's mission, member roles and responsibilities, council structure, resource leveraging, evaluation and re-prioritization of the Comprehensive Conservation and Management Plan, communication and marketing. An implementation plan must also be developed. The results of implemented changes should be evaluated and documented within 1-2 years.

In addition, the Assessment Team has identified areas of further investigation which are outside the scope of this report. These are detailed in Section V, but include investigation of other NEP programs, review of bylaws and the Executive Order, review of recently implemented changes, and development of a communication and marketing plan.

Albemarle-Pamlico National Estuary Program Strategic Assessment

I. BACKGROUND: Where the River Meets the Sea

The Albemarle-Pamlico National Estuary Program (APNEP), a partnership of the US Environmental Protection Agency (EPA) and the NC Department of Environment and Natural Resources (NC DENR), in cooperation with the Virginia Department of Conservation and Recreation (VA DCR) is one of 28 nationally significant estuarine areas. Congress established the National Estuary Program (NEP) in 1987 to improve the quality of estuaries of national importance. Section 320 of the Clean Water Act directs EPA to develop plans for attaining or maintaining water quality in an estuary. This includes: (1) protection of public water supplies, (2) protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife, (3) allowance of recreational activities, in and on water, and (4) the requirement of point and nonpoint source pollution controls. There are 28 NEPs, each guided by a Comprehensive Conservation and Management Plan to meet the goals of Section 320. The Albemarle - Pamlico National Estuary Program was among the first established in the United States, in 1987. The mission of APNEP is to identify, restore, and protect the significant resources of the Albemarle - Pamlico Sounds.

Albemarle – Pamlico National Estuary Program Region



- 1 - Chowan River Basin
- 2 - Roanoke River Basin
- 3 - Currituck Sound & Pasquotank River/Albemarle Sound Drainage Basin
- 4 - Tar-Pamlico River & Pamlico Sound Drainage Basin
- 5 - Neuse River Basin & Core Sound/Rogue Sound Drainage Basin



A unique environmental protection program, APNEP targets a broad range of issues including improving water quality in the estuary while maintaining the integrity of the whole system -- its chemical, physical, and biological properties, as well as its economic, recreational, and aesthetic values through partnerships and community involvement. APNEP's geographic scope covers: 36 northeastern North Carolina counties and 19 counties and incorporated cities in southeastern Virginia; includes 5 major river basins – the Chowan, the Pasquotank, Roanoke, Tar-Pamlico, and Neuse, and encompasses seven sounds: Albemarle, Bogue, Core, Croatan, Currituck, Pamlico and Roanoke, in all 88,000 square kilometers (approximately 30,000 square miles). APNEP has the largest programmatic area of all the NEP's, and is the largest lagoonal estuarine system in the United States. Based solely on total watershed area, it is the third largest estuary in the nation.

Like other estuaries, the Albemarle- Pamlico System faces both challenges and opportunities. Some of the environmental problems include over enrichment of nutrients, pathogen contamination, toxic chemicals, alteration of freshwater inflow, and loss of habitat, declines in fish and wildlife, and introduction of invasive species, causing declines in overall ecosystem health. In fact, most National Estuary Programs cite development and excessive use, (such as greater riverine traffic) as the greatest threat to water quality.

As a place of transition from land to sea, from fresh to salt water, the Albemarle-Pamlico estuary serves as:

- an important habitat for migratory and residential wildlife;
- a filter of sediment, nutrients, and other pollutants, producing cleaner and clearer water;
- a cultural center for communities, providing local commerce, recreation, celebrations, customs, and traditions;
- a living laboratory for scientists, educators, and students, in the natural and social sciences;
- an aesthetic enjoyment for the people who live, work, and recreate in the region;
- a center of trade for tourism, fisheries, and other commercial activities which thrive on the wealth of natural resources supplied by the estuary; and
- a support for important public infrastructure such as harbors and ports vital for shipping.

To face the respective challenges and opportunities, various management strategies are developed and combined to ensure success in restoration and protection of the environmental, economic, and social values inherent in the Albemarle-Pamlico estuary, including:

- regulation
- innovative initiatives
- new technology
- balanced and inclusive planning
- management
- scientific research
- participatory monitoring
- evaluation
- public involvement
- education
- inter-agency cooperation / coordination

Of critical importance is the encouragement of communities to take responsibility for managing local resources and the encouragement of interagency cooperation. APNEP representation comprises federal, state and local government agencies responsible for managing the region's resources, as well as representation from community members - citizen, business and environmental leaders, educators, and researchers. Together, these stakeholders work to identify problems, develop specific actions to address those problems, and implement a formal management plan to restore and protect the estuary.

Comprehensive Conservation and Management Plan

Also of critical importance is the Comprehensive Conservation and Management Plan (CCMP), which was completed in 1994. The CCMP contains five management plans that address regional concerns: Water Quality, Vital Habitats, Fisheries, Stewardship and Implementation.

Each of these plans begins with a **Goal Statement** that outlines its purpose. Each goal consists of one or more **Objectives**. Under each Objective is a **Strategy** that describes how the objective is to be addressed. Strategies also describe existing programs and illustrate how they may be integrated with newer recommendations. **Management Actions** are listed below each strategy and describe what general action the state agencies would take to achieve the broader objectives of the plan.

The implementation of each management action is explained with **Critical Steps**. The critical steps specifically state which measures need to be taken to implement a management action and estimate some of the potential economic costs and considerations.

APNEP Organizational Structure:

APNEP consists of six councils: five regional councils - one from each major river basin - and one coordinating council.

Five Regional Councils

Purpose:

Advisory Councils set up to foster public input; established by Executive Order in 1995; meeting since 1997.

Duties:

- Advise and consult with environmental management agencies, the public, and interest groups on river basin issues and the implementation of management programs
- Prioritize basin issues and build support for cost-effective strategies to address them.
- Develop and implement strategies amenable to local actions.
- Provide direction for the selection of demonstration projects and funding levels. (Projects must follow Coordinating Council guidelines approved in 1999).
- Determine matters of regional council protocol. (Must meet at least twice a year.)
- Provide an annual progress report to program administration and Coordinating Council.

Composition/Membership:

- All five major river basins are represented by a Regional Council: Chowan, Neuse, Pasquotank, Roanoke, and Tar-Pamlico.
- Each county in a basin shall have three representatives even if the county is within another basin: one county official, one municipal official, and one person appointed by the Secretary of DENR (from a submitted list of names.) Each council may expand membership as deemed necessary.
- Members serve a 5-year term. Vacancies are filled by appointing authority.

Coordinating Council

Purpose:

For its 29-members to devise policy and provide continued opportunity of interagency coordination and local government input (established by Executive Order in 1995, meeting since 1998). Serves in an advisory capacity.

Duties:

- Advise and consult with the Regional Councils for guidance on coordinating implementation strategies at the local level;
- Determine annual priorities for implementing sections of the CCMP, make recommendations based on progress and success, and identify and prioritize information needs as described in the CCMP;
- Provide annual reports (generated by each participating entity) evaluating the progress and success of CCMP implementation strategies;
- Develop and implement a Memorandum of Agreement between North Carolina and Virginia to ensure continued cooperation and coordination in implementing the CCMP and pursue cooperative programs with the Commonwealth of VA to support the mission of APNEP;
- Evaluate and support CCMP implementation strategies to ensure the highest level of cooperation and coordination among agencies, local governments, and public and private interest groups;

Composition/Membership:

- Include 15 representatives of the 5 Regional Councils (2 county and municipal reps and 1 at large rep); 7 representatives of citizen commissions; 4 representatives of federal agencies; and 3 state government representatives.

Program Administration

Purpose (since 1987):

Administer the APNEP program based on a proposed plan of work: responsible for coordination, planning, and successful implementation of the Comprehensive Conservation and Management Plan (CCMP).

Duties:

- *Coordination of the Coordinating Council, the Regional Councils, and partner agencies*
- *Determine* budgeting, contracting and financial administration
- *Provide* program representation and planning

Composition/Membership:

- Initially comprised of a Program Coordinator and Outreach Coordinator, there are now 7 program staff: Program Director, Science Coordinator, Restoration Specialist, and NC Watershed Coordinator, all in Raleigh NC; Public Involvement Coordinator, Washington NC; Citizen's Water Quality Monitoring Program Coordinator, Greenville, NC, and the VA Watershed Coordinator, Suffolk, VA.
- Administered through the Office of Conservation and Community Affairs in the NC Department of Environment and Natural Resources.

II. PURPOSE OF STRATEGIC NEEDS ASSESSMENT

Since 1987, neither APNEP as an operating body nor the 1994 CCMP guidance document, have been reassessed to determine overall effectiveness or recommend changes. Identifying strengths and weaknesses, emerging and priority issues, and opportunities for improvement is critical to determining future program plans and operating structure. Furthermore, in 2002, an Implementation Review conducted by EPA determined inadequate progress in the implementation of the CCMP. EPA recommended changes, several of which are currently in place or will be put into place, such as the strategic assessment.

A. Assessment Objectives

- Gather general perceptions about APNEP from a broad based representation of stakeholders, including administration, and partners;
- Listen for perceptions and reactions to recent changes recommended by EPA;
- Suggest reasons for decline in stakeholder participation;
- Assess current organizational structure to implement CCMP management strategies;
- Assess strengths and weakness of process structure (by-laws, funding mechanisms, communication channels, meeting times, etc);
- Develop recommendations for APNEP to increase its focus and effectiveness; and
- Propose strategic options for APNEP program development.

B. Assessment Scope

- Regional and Coordinating Councils, program administration, and other key supporters or experts to understand the role and development of APNEP in North Carolina
- Virginia partners in APNEP
- EPA staff with APNEP responsibilities

C. Assessment Methodology

The strategic assessment process was initiated in July 2003 by a five member Assessment Team from Cooperative Extension at NC State University. The Assessment Team consisted of staff from two Cooperative Extension programs housed in the Department of Agricultural and Resource Economics, the Natural Resources Leadership Institute (NRLI) and Watershed Education for Communities and Local Officials (WECO). Methodology involved:

1. Targeting the three major audiences: five Regional Councils, one Coordinating Council, and non-council stakeholders (program personnel; program partners and liaisons; and others with specific knowledge about APNEP).
2. Gathering information by way of different formats and avenues, including: announcement letters, mailed questionnaires, interviews by phone (served as the primary source of information gathering), and review of relevant literature, records, and reports.
3. Designing data collection instruments. The Regional Council survey asked respondents questions about: the mission and goals of APNEP; the communication structure of the organization; roles and responsibilities; inter and intra council relations; decision-making processes; fiscal resources; implementation processes; and program impacts. The survey of the Coordinating

Council and non-council stakeholders contained broader questions regarding history, development, functionality and perceptions.

4. Developing a database to track stakeholder contact information and responses. Updated stakeholder contact information will be provided for distribution to the Public Outreach Coordinator.
5. Reviewing and discussing the information gathered in order to clarify assumptions and provide potential recommendations, including strategic process design options.

The following tables outline the interview response rates for the Strategic Assessment surveys. The numbers are a function of all possible interviews. The overall interview rate was 48%. The resulting 52% not interviewed includes 7% which considered themselves no longer affiliated with APNEP, 7% which could not be contacted, 7% which were not interested in participating, and 31% which did not respond.

A higher percentage of Coordinating Council members and Non-council Stakeholders, 60% and 70% respectively, were interviewed as compared to 41% of possible Regional Council participants. The lower response rate of the Regional Councils may be indicative of a number of things including (1) a need to re-energize the public participation format, (2) a perceived lower level of importance within the Regional Councils, and (3) turnover in Regional Council representation. Each of the response rates expresses a multitude of considerations. Non-council stakeholders for example, with the highest interview response of 70%, may have the greatest perceived stake in APNEP due to their direct role in implementing and administering the APNEP program and its management strategies.

TABLE 1: Strategic Assessment Population

	TOTAL	Chowan	Neuse	Pasquotank	Roanoke	Tar-Pam
Non-Council Stakeholders	20					
Coordinating Council Members	15					
Regional Council Members	95	19	20	18	12	26
Regional Council Members also serving on Coordinating Council	(11)	(3)	(3)	(1)	(2)	(2)
Total Population	130	19	20	18	12	26

* All members were counted only once. Eleven Regional Council members also serve on the Coordinating Council – they were counted only as Regional Council members. Two Regional Council members serve on both the Chowan and Pasquotank Regional Councils – each was counted once, one on each of the two councils.

TABLE 2: Status of Overall Strategic Assessment Interviews

	Overall	Coordinating Council	Non-council Stakeholders	Regional Council	Chowan	Neuse	Pasquotank	Roanoke	Tar-Pamlico
TOTAL Possible Interviews	130	15	20	95	19	20	18	12	26
Total Interviewed	62 (48%)	9 (60%)	14 (70%)	39 (41%)	8	11	7	3	10
Total Not-Interviewed*	68 (52%)	6 (40%)	6 (30%)	56 (59%)	11	9	11	9	16

*Members may not have been interviewed because they were: uninterested, unable to be contacted, no longer affiliated, or did not respond after repeated contacts.

TABLE 3: Breakdown of Those Not Interviewed

	Overall	Coordinating Council	Non-council Stakeholders	Regional Council	Chowan	Neuse	Pasquotank	Roanoke	Tar-Pamlico
Total Not-Interviewed*	68 (52%)	6 (40%)	6 (30%)	56 (59%)	11	9	11	9	16
• <i>Not Interested in Participating</i>	9	1	1	7	3	0	1	1	2
• <i>Unable to Contact</i>	9	0	0	9	3	0	2	0	4
• <i>No Longer Affiliated</i>	9	0	0	9	2	0	3	0	4
• <i>Did Not Respond</i>	41	5	5	31	3	9	5	8	6

III.Strategic Assessment

How well is APNEP doing? What should APNEP be doing in the future? How can APNEP achieve successful change?

In order to respond to these broad questions, the strategic assessment is divided into two sections: **Program Implementation** and **Program Results**.

Program Implementation summarizes findings and areas of improvement in three categories:

1. Resources: Program Administration and Funding
2. Activities: Program Communication and Marketing
3. Participation: APNEP Mission and Goals and Member Participation, Roles and Responsibilities

Program Results summarizes findings and areas of improvement in two categories:

1. Perceptions: Council Member and non-council stakeholder program perceptions.
2. Impacts: Major impacts of the program and suggested improvements.

NOTE:

***Concerns** are those issues brought up by the survey respondents.*

***Recommendations** were written by the Assessment Team, based on stakeholder recommendations, survey findings, and research.*

A. Program Implementation

1. Resources: Program Administration and Funding

The EPA conducted a program evaluation of APNEP in 2000. Major findings of the report included:

- inadequate number of staff to accomplish administrative objectives.
- lack of visibility and a lack of program autonomy.

EPA recommendations included:

1. Elevate the status of APNEP within the NC Department of Environment and Natural Resources (DENR).
As of July 2002, APNEP is administered from DENR's Office of Conservation and Community Affairs. Formerly, it was housed with the Basinwide and Estuarine Planning Section of the Division of Water Quality, DENR.
2. Restructure program leadership.
APNEP is now headed by a Program Director with budgetary and supervisory responsibilities, as of June 2002.
3. Establish three new staff positions.
A Science Coordinator, Restoration Specialist and Field Representative have been hired as of December 2003. Two positions are funded by current APNEP funds and one position is funded by the NC State Legislature.

Regarding EPA Funding:

Survey responses depicted a general sense of inadequate funding.

1. Concern:

APNEP receives the same EPA Section 320 funding as other National Estuary Programs (NEP) although it is one of the largest geographically, which stretches resources and potentially limits effectiveness.

Recommendation(s):

Allocate more EPA 320 funding, based on size of geographic area. Split program into north and south APNEP and fund as two programs with one leadership. Decrease program boundaries. Follow Chesapeake Bay program model, which is separate from the National Estuary Program (NEP).

2. Concern:

Florida and New Jersey NEP programs are successful with leveraging additional resources and inter-agency coordination within state government. It is not clear to various council members if funding and in-kind opportunities beyond the EPA are being sought after and leveraged.

Recommendation(s):

Raise awareness of the current leveraging of resources in NC. Raise the awareness level between program leadership and the council on the kinds of resources currently being leveraged. Encourage in-kind contributions where funding is unavailable. Publicly recognize all forms of contribution. Continue to encourage and enable Coordinating Council members to market the program to political leaders and decision-makers to leverage financial support. Include objectives about leveraging resources as part of the annual program plan.

3. Concern:

Travel expenses prohibit participation for some members and perhaps reduce implementation effectiveness.

Recommendation(s):

Provide travel expenses to those without resources. Consider that many counties are financially depressed and unable to contribute volunteer or financial resources. Also, consider how lack of travel funding affects diverse participation, such as participant diversity of age, affiliation, local experience, gender, ethnicity, volunteer skills).

4. Concern:

Reallocation of funding to the increased program staff will reduce the funding available for the program mission and projects.

Recommendation(s):

Encourage program staff to bring in at least as much grant money as is spent on salaries.

2. Activities: Program Communication and Marketing

a) Regarding Communication and Information Sharing Structure:

Regional Council communication and information sharing is generally restricted to meeting participation and a newsletter. Notices, including meeting times, meeting agendas and meeting minutes are typically mailed.

1. Concern:

Regional Councils in general perceive communication and information sharing is good. Most received information on time, although some mentioned they were not aware of certain meetings. Although communication is perceived by individuals as good, through interviews it was noted that respondents did not always have the same level of understanding of program issues, indicating

communications between Regional Councils, the Coordinating Council, and staff could be improved. It is important to keep in mind that some members do not have email, internet access, or voice mail.

Recommendation(s):

Continue to develop a communication plan that considers respective needs of all members. Continue to mail newsletters and include other meeting information. Design notebooks containing vital information for all members and an "Orientation" section for new members. These notebooks can also serve as a place to store correspondence.

2. Concern:

Regional Councils preferred to receive most of their information from the meetings. Meetings were the most informative method of communication.

Recommendation(s):

Continue to hold face-to-face meetings. Encourage all members to have access to basic communication devices (voice mail or email) as part of representation.

3. Concern:

Some Coordinating Council members have not seen progress reports from the Regional Councils nor received information to assist with supporting and evaluating the CCMP implementation strategies. Most communication between the Coordinating Council and Regional Councils is through meeting minutes.

Recommendation(s):

Review Regional Councils responsibilities. Review methods of communication between Coordinating Council and Regional Councils. Consider a CCMP version designed for the lay person, or a quick reference. (Meeting minutes are a form of information dispersal, not an interactive form of communication.)

4. Concern:

Responses from non council member partners varied greatly. Communication has improved according to some, specifically citing greater coordination between NC and VA. State communication has improved with new leadership, program structure and visibility. Lack of coordination was indicated among state agencies, APNEP Councils, and the EPA. **The greatest criticism seems to be the lack of outreach and communication between the councils and the citizens.** One respondent stated APNEP is North Carolina's "best kept secret".

Recommendation(s):

Monitor communication and information sharing structure between state agencies, the councils, and the EPA. Consider how to better serve this process. Develop a multi-faceted outreach plan using all forms of marketing techniques, i.e. – newspapers, newsletters of APNEP partners, special events, educational forums, listservs, websites, open house meetings, public access channels, and perhaps a APNEP festival.

b) Regarding Marketing and the Media

Current Marketing activities include: APNEP website, newsletter, and promotion of demonstration projects; US EPA website; Association of National Estuarine Programs website; Albemarle-Pamlico Regional Guide; and the Traveling Exhibit Materials. Currently, a media-marketing plan does not exist.

1. Concern:

Regional Council responses vary concerning occurrence and effectiveness of public marketing locally, statewide and nationally.

Recommendation(s):

Determine the needs of each Regional Council concerning their relationships to the public and local decision makers. Have Regional Councils share marketing strategies with one other.

Report on current and developing marketing efforts at meetings. This can help the Coordinating Council and Regional Councils. (Examples include website updates, the Albemarle-Pamlico Regional Guide, the Traveling Exhibits, and the APNEP brochure).

2. Concern:

Working with the media can enhance visibility to all levels of participation of the program to the Coordinating Council, Regional Councils, the general public and specific target audiences.

Recommendation(s):

Develop a Media Plan: know local media resources; have a media toolkit; include a long range media plan to leverage political and public support. DENR Office of Public Affairs may be able to help. During meetings, develop press points that will be distributed to the local media.

3. APNEP Mission and Goals and Member Participation, Roles, and Responsibilities

a) Regarding APNEP Mission and Goals

Regional Council perception of the APNEP mission appears consistent, although the emphasis varies among the Regional Councils. Among the Coordinating Council, the perception of the APNEP mission appears inconsistent. The function of the Coordinating Council and Regional Councils is not clearly defined among the membership. Public education and involvement are widely recognized as an important responsibility of the councils.

1. Concern:

The mission of APNEP is not clearly defined throughout council membership. Some examples of the overall APNEP mission cited by respondents include: to protect water quality in the sounds, to protect water quality within the counties, to improve scientific understanding of the watershed issues.

Recommendation(s):

Clearly define and review APNEP mission, the Coordinating Council mission, and the Regional Councils mission. Lack of a clear mission will lead to unclear goals and objectives.

2. Concern:

Some Coordinating Council members' views of core purposes of APNEP include: the incorporation of public views and needs when making water quality plans, the need to leverage resources and coordinate efforts to reach water quality goals, increase communication to effectively implement the CCMP.

Recommendation(s):

Clearly define and review APNEP mission, the Coordinating Council mission, and the Regional Councils mission. Lack of a clear mission will lead to unclear goals and objectives.

3. Concern:

The perceived function and purpose of the Coordinating Council and the Regional Councils varies extensively. The following are some examples of responses: purpose of Coordinating Council is to receive information from the Regional Council, purpose of Regional Council is to identify water quality issues in their region, purpose of Regional Council is to be a vehicle for identifying demonstration projects in their region and push them through the Coordinating Council

Recommendation(s):

Clearly define and review APNEP mission, the Coordinating Council mission, and the Regional Councils mission. Lack of a clear mission will lead to unclear goals and objectives.

4. Concern:

The inclusion of public education was a consistent thread appearing throughout the responses.

Recommendation(s):

Encourage citizen involvement and education as important goals of the program.

b) Regarding Coordinating Council Participation, Roles and Responsibilities

Coordinating Council involvement and participation has been more consistent than Regional Council involvement. Some respondents stated they received travel support and are allowed time during their workday to devote to Coordinating Council activities.

The Coordinating Council meets quarterly, more frequently than the Regional Councils. Many people on the Coordinating Council participate as a function of their job, as compared to volunteering their time. They typically have backgrounds in water quality and land use management. Most Coordinating Council members view their responsibilities as reviewing material from the Regional Councils, and carrying out actions in the CCMP. Most do not mention a role of providing inter-agency coordination.

1. Concern:

Coordinating Council members have typically held their positions since Council inception or have been there longer than five years.

Recommendation(s):

Coordinating Council members did not indicate they were tired of participating, but it may be worth discussing. An open discussion of term-limits and the positive/negative aspects of long term participation may enhance the program. If a members participates as a function of their job, term limits may not be an issue. The expectations of members should be clearly outlined.

2. Concern:

The following phrase that was heard as a Coordinating Council role from respondents is not clear: "carrying out CCMP actions". Does carrying out CCMP actions refer to implementing demonstration projects? Monitoring projects? Policy impacts? Carrying out objectives in the CCMP? If so, are the Regional Councils best suited to implement these actions?

Recommendation(s):

Goals and objectives need to be clearly defined, including who is responsible to carry them out.

c) Regarding Regional Council Participation, Roles and Responsibilities:

Regional Council participation has decreased. All Regional Council members interviewed suggested they participate as volunteers even though it may be a requirement of their job to do so, especially those who are elected or appointed. The number of hours each Regional Council member spends on APNEP duties varies from 4-24 hours a year. This accounts for preparation, meeting time, demonstration project time and working with the public.

1. Concern:

Perceived lack of responsibility, impact, and enthusiasm is contributing to low attendance and resignations. Some members did not want more responsibility and felt providing input was the role they agreed to serve.

Recommendation(s):

Review the goals, responsibilities, and purpose of the Regional Councils. If the goal is to implement change within the river basins, then the Regional Councils may be the best to do this based on action plans supported by the Coordinating Council. (It is possible those members serving on both Councils may feel more of a sense of responsibility than those who serve only on a Regional Council.)

2. Concern:
Respondents felt meetings did not occur often enough and projects were not getting done as a result.

Recommendation(s):
Lack of communication seems to be a part of this problem. Meet quarterly or more frequently if there was a specific task that required meeting. Re-orient council leadership with respect to responsibilities. Leadership is not clearly defined within the councils.

3. Concern:
Lack of an orientation process for new council members and hence overall understanding of roles and responsibilities.

Recommendation(s):
Design notebooks containing vital information for all members and an "Orientation" section for new members.

4. Concern:
Strictly prescribing representation may limit attendance of individuals who are not members but would like to attend. Also, strict representation requirements from local governments may result in an "assigned" member rather than an enthusiastic voluntary participant.

Recommendation(s):
If either council provides recommendations on policy changes, then role of government representation is important, as are other prescribed interests. However, if either council is focused on implementation of projects and public education, less strict representation is suggested.

5. Concern:
Alternates are either not assigned or not informed, thereby unable to step in when needed.

Recommendation(s):
Consider incorporating alternate council members. These alternates are responsible for attending meetings when the council member is unable. Council members should keep alternates up to date, and share the notebooks with them. Alternates are a good source of future members and an excellent vehicle for communication.

6. Concern:
Overall lack of incentive to participate.

Recommendation(s):
Provide appreciation awards and recognition for member service. Recognize demonstration projects with ribbon cutting ceremonies. Provide meals at meetings. Host annual celebration events that recognize efforts. Many of these can overlap and all can help with marketing.

7. Concern:
It is not clear if employers support attendance of the Regional Council members.

Recommendation(s):
Determine if employer support exists. Strategize a marketing plan specifically geared to member employers that outlines benefits of employee attendance.

B. Program Results

1. Perceptions: Council member and non-council stakeholder program perceptions

The following section deals with respondents: degree of interest and feelings toward the program; perceived quality of decision-making; and satisfaction with program gains.

Regional Councils and Coordinating Council noted how well their respective teams worked and whether team efforts were recognized. Overall, respondents felt council members worked well together.

There are those who believe APNEP is meeting its goals successfully, those who believe APNEP is reaching some of its goals, and those who believe APNEP is not reaching its goals at all. In addition, some respondents stated that some APNEP goals have been carried out by other state programs like basinwide planning.

Respondents addressed questions of council representation. Every Regional Council member interviewed felt he or she was an appropriate representative, and that council makeup is diverse.

Regional Council respondents were generally satisfied that decisions followed discussions of multiple points of view. Council members and Non-council respondents expressed the importance of including as many parties as possible in decision-making.

1. Concern:

Some Coordinating Council members felt Regional Council members didn't contribute enough. Responses indicated this may be due to lack of communication between and possibly not realizing the significance of participation.

Recommendation(s):

Consider developing new means for Coordinating Council members to communicate with Regional Council members. Both can suggest ways to improve their own and the others' role and responsibilities, and support each other. Design feedback loops that allow the membership to know what has become of suggestions. Both internal and external (third party evaluations) could be used to monitor suggestions and how these are used.

2. Concern:

Conflicting interests within the membership manifest themselves as strengths in decision outcomes, but at times these differences have hindered decision-making.

Recommendation(s):

Consider developing a policy to deal with conflicting interests. The policy should outline how decisions are made, for example, by consensus. Consensus decision-making allows for all interests to be integrated into the decision, allowing for more support, but consensus does take more time. A contingency method may be needed if consensus can not be reached in a reasonable amount of time. By outlining the decision making process ahead of time, the group will have guidelines to follow when tough decisions must be made.

3. Concern:

It is not clear that members of either council understand the protocols (length and number of meetings, who reports to whom, how decisions will be made, length of membership, etc).

Recommendation(s):

Clarifying meeting and group protocols may help to increase member involvement at meetings.

4. Concern:
Demonstration projects go largely unnoticed and it is not clear if these are meeting the short and long term objectives required in the CCMP.

Recommendation(s):
Participatory and scientific monitoring, tracking of implementation measures, and publicity generation need to occur for demonstration projects.

5. Concern:
Unclear how well the program implementation and outcomes are being measured and reported. It is apparent that some consider the goal of APNEP simply to maintain and improve water quality to the exclusion of social values to some extent, and to the exclusion of economic goals to a large extent.

Recommendation(s):
Develop a program evaluation plan and a plan to monitor overall management strategies and outcomes, including *process outcomes*. Consider having this part of the overall annual progress reports. Consider conducting cross-project or program evaluations, in particular where leveraging of resources is occurring.

6. Concern:
Some respondents said unaffiliated voices and agricultural interests are underrepresented. Some suggested there might be more representation of water quality interests, and less of wildlife, vital habitats, and fisheries. Also, consider other aspects of representation such as diversity in socio-economic status, age, and community expertise.

Recommendation(s):
Review representation based on river basin, issues, and needs. Are all interests represented or is an interest represented simply because there is the time and resources to attend. Determine how this affects overall implementation.

7. Concern:
Regional Council respondents are not sure about their decision-making role and what is done with their recommendations.

Recommendation(s):
Discuss the decision-making role of the Regional Councils. Discuss what occurs with their recommendations and provide some type of follow-up to their recommendations within a specific period of time. It seems that all the decision-making power rests with the Coordinating Council. Although the Regional Councils are represented on the Coordinating Council, the rest of the Regional Council may not be receiving feedback. If the Regional Councils were to integrate or have collaborative meetings with the Coordinating Council instead of the long-distance monitoring there may be an increase in understanding as well as a greater sense of empowerment. Also consider that when decisions are made by voting, some members reported being outnumbered in the prior discussions. Consider operating by consensus rather than by Robert's Rules of Order so that all participants interests are considered in decision making processes.

2. Impacts: Resulting major impacts and suggested improvements.

The following section discusses observed impacts from APNEP and Suggested Improvements from the Assessment Team.

Regarding the First NEP Model

Initial research studied the estuaries' ecological integrity and the complex relationship among its resources, generating the Comprehensive Conservation and Management Plan (CCMP) 1994. The CCMP is a guidance document for APNEP management actions and strategies and addresses a broad range of environmental, economic and social concerns, including the most pressing resource protection issues in the Albemarle-Pamlico system and the most effective strategies to address them.

1. Impact:

Served as the model when developing other National Estuary Programs. There are currently 28.

Suggested Improvements from Assessment Team:

Look to other NEPs to determine their strengths and weaknesses; if resources are being effective; what activities contribute the most/least; public involvement processes; use of Councils; and what do people do differently as a result.

2. Impact:

Comprehensive Conservation and Management Plan Summary

Suggested Improvements from Assessment Team:

Consider reviewing the CCMP plan on a 5 year basis or using some timeline, not only the strategies but whether certain objectives have been accomplished through other programs. It is not clear that annual progress reports are occurring and thus how can actual measurements be made? It is also not clear if the strategy suggested is achievable given resource and geographic barriers. Consider what the other large NEPs are doing – what are their benchmarks for success? Consider the need to coordinate prioritization of goals and focus of APNEP in order to focus spending of resources on particular issues. It appears the Regional Councils can prioritize as well as the Coordinating Council. Does this method conflict or support one another? Prioritize the entire APNEP program or prioritize on a regional basis.

Regarding the Implementation of Conservation and Management Plan

Regional Council respondents believe they have affected public policy in some way by providing input into the DWQ basinwide plans; by reducing overall development on the rivers with public support; and by working to involve the public in decision-making or project efforts; and by encouraging overall education about the estuary.

3. Impact:

Formation of the Regional and Coordinating Councils.

Suggested Improvements from Assessment Team:

See suggestions throughout findings report. Focus on the role of the Regional Councils: is this structure needed to implement actions in the area? Advertise more widely/publicly for citizen participation perhaps. **Perhaps consider some restructuring sessions at the upcoming APNEP conference.** Respondents had many observations concerning the Regional Councils: 1) cannot fill member slots as membership guidelines too restricted –creates long vacancies and no alternates in place; 2) member's role is to serve a particular interest not necessarily to create a positive effect on the estuary; 3) members attend because their employer required it; 4) members did not attend meetings as lacked responsibility and relevance; 5) the geographic area of APNEP is a barrier to participation because of the distances members have to drive without reimbursement; and 6) review the database and update information as well as membership since many members appear to have been on longer than 5 years.

Regarding Demonstration Projects

4. Impact:

Funded demonstration projects which illustrated new methods of protecting marshes, aquatic habitats, and private property from erosion; control systems that protect rivers and streams from storm water runoff; composting techniques that turn waste from agriculture and crab processing into fertile soil; and new fishing gear that reduces the unintended capture of non-targeted species.

Suggested Improvements from Assessment Team:

Market the demonstration projects; monitor effects of these projects; and consider whether demonstration projects are being accounted in meeting the CCMP objectives. Without annual progress reports, it is difficult to state whether CCMP objectives are being reached or are attempted to be reached. Recognize the results of pilot projects: they can inform about what not to do or what does work best – this information is key in moving forward to more durable projects – capture it.

Regarding Inter-Agency Coordination

The need for coordination and partnerships with other agencies and programs was something almost all the respondents mentioned that needs to continue as building working relationships has been a direct benefit of APNEP.

5. Impact

APNEP has worked with other programs to accomplish its own goals and to assist in accomplishing the goals of the other programs.

Suggested Improvements from Assessment Team:

Improve and foster additional/stronger relationships with other programs such as the NC Coastal Non-point Source Pollution Program (CNPS) and other monitoring programs, to accomplish shared goals and leverage resources. Also, consider other councils in existence and how these groups are working and if these structures could serve APNEP in outreach and implementation of projects. Continue to work to build the NC-VA relationship and explore ways to develop that relationship further.

Regarding Education and Public Awareness

6. Impact:

Respondents stated being involved assisted in their overall learning about the needs of the area: and for some, not only the environmental needs but the economic and social needs, and to work with all of these factors in reaching the CCMP goals.

Suggested Improvements from Assessment Team:

Continue to provide mechanism for short-term and long-term educational opportunities. May want to consider developing a self-assessment instrument to measure the overall results of collaborative learning that occur in the river basins as a result of APNEP's educational outreach. Also, improve on current programs – look for ways to share broader resources with other programs.

IV. Success: Supports and Barriers

Respondents were asked about APNEP successes and barriers to success. They were asked to consider the past, present and future of APNEP. Their responses are summarized below. Some respondents voiced their hopes for future APNEP successes. These included: further implementation of the CCMP, increased involvement and cooperation by all parties, encouragement of environmental education and stewardship, increased funding and tracking of goals, and improvement of water quality, tourism, fish habitat, and the many other benefits associated with a healthier Albemarle-Pamlico ecosystem.

A. Supportive Factors:

- Participants' own enthusiasm and personal obligation to the environment.
- Participant's ability to support an initiative in their community and have the support of the Coordinating Council and others.
- APNEP staff Joan Giordano and Bill Crowell were recognized as being very supportive.
- Employers who support their employee's participation in APNEP council work.
- Communication between members helps support council achievement and success.
- APNEP's focus on integration and coordination has encouraged new approaches, new linkages, new intellectual networks, and influenced public policy such as river basin governance.

B. Notable Barriers:

- There is a lack of funding, especially considering the large geographic program area.
- A lack of participation was noted and several possible reasons given. Reasons include:
 - Unclear understanding of APNEP mission and goals.
 - Unclear understanding of Council roles, responsibilities and leadership.
 - Lack of council direction and nurturing.
 - Lack of member/participant orientation.
 - Poor council attendance.
 - Heavy representation by government on councils, and their poor attendance.
 - Lack of local government commitment is a discouraging.
 - Executive Order prescribes council representation, limiting flexibility.
 - A lack of empowerment, direction and authority exists within some of the councils.
 - Decreased overall communication during recent restructuring phase (last several years).
- Not coordinating with other programs which have an impact in the area.
- Program marketing needs to occur, both internally externally. Marketing includes sharing impacts from the various councils, the identification of leveraging that is occurring, summations of the annual progress reports, and other program impacts.
- Program evaluation needs to occur. Formative and summative evaluations of both process and program outcomes need to occur at all levels of the program.
- Clear performance indicators are needed to manage these results.
- Monitoring of projects is not linked to the volunteer monitoring network. This may provide additional information about accomplishments and build social, technical, and educational capacity for the APNEP program.

V. Recommendations

APNEP has a number of changes currently being instituted as a result of direction provided to APNEP staff by EPA from the 2000 program evaluation. These changes include the establishment of additional staff positions, a change in the location of the program within NCDENR, and the creation of a new technical and scientific committee. Many of these changes have already occurred, although since they have just recently been implemented it is too soon to determine the impact that these changes will have on the effectiveness of APNEP.

Even though the impacts of the recent programmatic changes are not yet evident, the Assessment Team recommends exploring additional changes to revitalize the public involvement aspect of APNEP. The Team recommends involving the council members and APNEP staff in identifying and taking incremental actions to improve the internal program's workings, based on the highlighted potential problem areas. The Team suggests APNEP staff work with Regional and Council Members at a planning retreat to discuss and agree upon key issues. These issues include APNEP's mission, member roles and responsibilities, council structure, resource leveraging, evaluation and re-prioritization of CCMP implementation, communication and marketing. An implementation plan must also be developed. The results of any changes implemented should be evaluated and documented within 1-2 years.

In addition, The Assessment Team has identified areas of further investigation which are outside the scope of this report. These are detailed in Section V but include investigation of other NEP programs,

review of bylaws and Executive Order, review of recently implemented changes, and development of a communication and marketing plan.

- Investigate the Citizen Monitoring Program and determine opportunities for interactions with the councils.
- Conduct interviews of other NEPs on their overall program implementation and program impacts, strengths and limitations.
- Consider reevaluating the CCMP. This would assist in supporting local priorities and implementation as well as broader priorities.
- Review the current bylaws for inconsistencies with Executive Order and perceived expectations of program personnel.
- Evaluate how the recently implemented changes recommended by EPA, are impacting overall program effectiveness.
- Develop an internal communication plan and an external outreach and marketing plan.

VI. References

Albemarle-Pamlico National Estuary Program: [www. Apnep.org](http://www.apnep.org)

Association of National Estuary Programs: www.anep-usa.org

EPA National Estuary Program: <http://www.epa.gov/owow/estuaries>

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NC General Assembly. (1995). Executive Order No. 75: Creation of Regional Councils and a Coordinating Council for the Albemarle-Pamlico Estuarine Study Region.

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