

2005 INNOVATIONS AWARDS PROGRAM

APPLICATION

Deadline: April 4, 2005

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1. Program Name: North Carolina Ecosystem Enhancement Program
2. Administering Agency: N.C. Department of Environment and Natural Resources
3. Contact Person (Name and Title): Tad Boggs, Director of Communications
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8. Web site Address: www.nceep.net
9. Please provide a two-sentence description of the program.

The Ecosystem Enhancement Program (EEP) proactively compensates for unavoidable environmental damage to North Carolina's wetlands and waterways. The initiative restores and protects the state's natural resources and assists responsible economic growth, and has earned national recognition for innovation and effectiveness in achieving tangible results.

10. How long has this program been operational (month and year)? **Note: the program must be between 9 months and 5 years old on May 1, 2005 to be considered.**

EEP became operational on July 22, 2003 through an agreement between the N.C. Department of Environment and Natural Resources (NCDENR), the N.C. Department of Transportation (NCDOT) and the U.S. Army Corps of Engineers (USACE).

11. Why was the program created? What problem[s] or issue[s] was it designed to address? **Indicate how the program applies to the “change driver” that you listed above.**

North Carolina’s Ecosystem Enhancement Program (EEP) addresses a problem familiar to every state in the nation: achieving responsible economic development while simultaneously protecting the environment and managing natural resources. In every state, new roads and other economic development cannot go forward if environmental safeguards aren’t achieved as required by law. North Carolina is working to meet this critical challenge by addressing environmental impacts proactively and comprehensively through the newly created, groundbreaking EEP.

During the mid-1990s, the state began to experience increased project delays in transportation-infrastructure improvements because of shortcomings in meeting federal clean-water permitting requirements. In response, the state began a process-improvement initiative in 2001 that involved input from 10 state and federal environmental agencies.

The task force examined the procedures of two state departments – Transportation (NCDOT) and Environment and Natural Resources (NCDENR) – working independently to compensate for development through a process known as mitigation. The panel found significant inefficiency in the old system and recommended a bold new approach.

12. Describe the specific activities and operations of the program in chronological order.

- Process-improvement initiative launched that conceived EEP (September 2001).
- Interim management team assembled under NCDENR (October 2001)
- Conceptual funding and organization plan established (December 2001)
- Crafting of memorandum of agreement by legal teams begins (April 2002)

- Stakeholders forum developed to elicit input on planning (February 2003)
- Memorandum of agreement signed by USACE, NCDENR and NCDOT establishing EEP's procedures (July 2003).
- Began reallocating and creating staff positions (July 2003).
- Initiated high-quality preservation program (July 2003).
- Began production in consultation with RTI International of a policy, process and procedures manual as part of an ISO 9000 total-quality management framework (August 2003).
- Initiated a request-for-proposal process analysis with private-sector input to review procedures and make improvements (August 2003).
- Began construction of a new headquarters to house operations (September 2003).
- Developed a branding campaign and logo to establish the organization's public image (October 2003).
- Contracted with the Conservation Trust for North Carolina and 22 local and regional land trusts to identify and preserve natural-resource assets (October 2003).
- Issued public notice on requests for proposals from private-sector firms on EEP wetland, stream and buffer restoration projects worth \$39.7 million (November 2003).
- Established a memorandum of agreement between the two sponsoring state agencies to govern EEP operations (April 2004).
- Launched a long-term stewardship program to govern state policy on protecting assets in perpetuity (April 2004).
- Formally established a program-assessment panel of executive-level state and federal regulatory agency representatives to focus on policy issues (June 2004)
- Launched website at www.nceep.net (July 2004)
- Proposed and secured a two-year budget of \$189 million from NCDOT for proactive mitigation needs.
- Issued requests for proposals for a new round of EEP-administered projects worth about \$100 million.

- Created a formal statement of cooperation with the American Council of Engineering Companies of North Carolina to foster effective and efficient procedures for doing business with EEP (November 2004).
- Developed an information system focusing on elements of information essential to EEP operations and program goals (December 2004).
- Finished or continued progress on 22 local watershed plans (December 2004).
- Met program needs for about \$1.5 billion in cumulative highway construction since July 2003 with no delays because of mitigation (March 2005).

13. Why is the program a new and creative approach or method?

The most compelling aspect of EEP's fresh approach is the proactive nature of its mission. Funds are invested in advance by the state's transportation leadership for environmental protection, before damage to wetlands and waterways will occur. EEP thus allows North Carolina to stockpile offsets years in advance of the time when they will be needed to clear permitting hurdles for transportation improvements and other economic development.

Furthermore, North Carolina decided to address the challenge of balancing needed growth with environmental protection by making the state's environmental agency – not its transportation agency – the watchdog over offsetting the unavoidable environmental impacts of new transportation infrastructure. And, in carrying out this mission, North Carolina would base its mitigation on a solid foundation of watershed planning that goes beyond mere environmental-permitting compliance.

Finally, the EEP partners with the private sector on two fronts to offset unavoidable environmental impacts. The program's alliance with local and regional land trusts across the state, believed to be unprecedented in the nation on this scale, harnesses the expertise, innovation and local knowledge of 23 separate trusts to promote land acquisition and

open-space protection. The partnership's aim is to provide fair economic return to landowners while achieving open-space protection for the state. The EEP also partners with more than 20 private biological-engineering and mitigation-banking companies on wetlands restoration and enhancement programs across the state.

North Carolina has created a national model for wetlands mitigation through the EEP, already earning a designation in March 2005 as one of the top 50 new innovative programs in the nation (from more than 1,000 entries) by the Ash Institute for Democratic Governance and Innovation of Harvard University's Kennedy School of Government.

14. What were the program's start-up costs? (Provide details about specific purchases for this program, staffing needs and other financial expenditures, as well as existing materials, technology and staff already in place.)

The NCDOT authorized \$5.3 million to fund start-up costs for the EEP. This allocation was earmarked for staffing the program, as well as to create a new unified headquarters for the state's advance-mitigation activities under the EEP.

With this outlay, the EEP is presently managing the activities of 32 personnel, with the expectation of reaching a level of 49 staff members by July 2004. (It is important to note that the program outsources about 95 percent of its operations to the private sector for biological studies, watershed planning, engineering, construction, land acquisition and monitoring, remediation and other functions.) Existing programs within NCDOT, NCDENR and other agencies supplied 27 positions in the new EEP structure.

The EEP brought together its operations by contracting for and renovating office space at a cost of approximately \$111,000. The program acquired new office equipment and furnishings at a cost of about \$88,000. An agreement was reached with a private consulting firm to help development a policy, process and procedures manual at a cost of

\$500,000. The EEP also contracted with the Conservation Trust for North Carolina for land-preservation activities at a cost of \$3 million.

15. What are the program's annual operational costs?

NCDOT authorized spending by the EEP for advance programmatic mitigation as forecasted in the state's seven-year Transportation Improvement Plan at a level of about \$189 million for the current biennium. The total included \$15 million for administration, \$47 million for restoration activities, \$121 million for high-quality preservation site acquisition, and \$6 million for project research and development.

16. How is the program funded?

EEP is funded on a fee structure proportional to demand. About 60 percent of EEP's funding derives from NCDOT to offset real and anticipated environmental impacts from transportation-infrastructure improvements.

Another 30 percent is supplied by in-lieu-fee payments into the state's Wetlands Trust Fund, composed of 1) payments to EEP to satisfy the compensatory mitigation requirements of Section 404 (federal Clean Water Act) permits and 401 (N.C.) Water Quality certifications; 2) riparian-buffer mitigation payments in three N.C. river basins as established under state administrative code; and 3) nutrient-trading fees to implement projects to reduce nitrogen loading within the state's Neuse River basin, established under state administrative code. In-lieu-fee funding, in which EEP assumes mitigation obligations of clean-water permit applicants in exchange for monetary contributions, is received from both private-sector and public-sector sources to create, restore or enhance wetlands, streams and riparian buffers.

Finally, 10 percent of the program is funded through other funding sources, including appropriations from the legislature under a wetland-restoration account that predates

EEP; U.S. Environmental Protection Agency state wetland program development grants; N.C. Clean Water Management Trust Fund grants; and U.S. EPA 319 grants.

17. Did this program require the passage of legislation, executive order or regulations? If YES, please indicate the citation number.

EEP was forged by a memorandum of agreement between the U.S. Army Corps of Engineers, the NCDOT and the NCDENR, under procedures proscribed in the federal Clean Water Act. The document was negotiated over a seven-month period and consummated on July 22, 2003. In order to operate in the state of North Carolina, EEP employed existing legislation and administrative rules governing the state's watershed-based compensatory mitigation program that operated under the direction of the state's Wetlands Restoration Program.

18. What equipment, technology and software are used to operate and administer this program?

EEP uses computer-based technology and software to manage both budget and accounting practices, and project-implementation and program services. EEP's private contractors use state-endorsed software (e.g., CAD-GEOPAK, WSPRO, AND HEC) in carrying out engineering, biological and land-acquisition activities. Also, Geographical Information Systems (GIS) are a key tool used by EEP to aid in its mission. GIS helps the initiative plan for and track projects, and provides a powerful tool to associate a wide array of data into a comprehensive picture of a watershed. GIS allows EEP to find appropriate project locations that best benefit the watershed as a whole.

19. To the best of your knowledge, did this program originate in your state? If YES, please indicate the innovator's name, present address, telephone number and e-mail address.

Yes. EEP resulted from a unique partnership between three critically important agencies charged with carrying out wetlands mitigation in the state. The leadership of the commanding officer of the U.S. Army Corps of Engineers/Wilmington District, as well as the secretaries and deputy secretaries of both NCDOT and NCDENR, was critical to driving the process that resulted in the formation of EEP.

However, the best source of information for describing the program's unique characteristics would be David Franklin of the U.S. Army Corps of Engineers/Wilmington District; P.O. Box 1890, Wilmington, NC 28402; (910)251-4952; david.franklin@saw02.usace.army.mil (note: Mr. Franklin is scheduled to retire from USACE effective May 4).

20. Are you aware of similar programs in other states? If YES, which ones and how does this program differ?

No.

21. Has the program been fully implemented? If NO, what actions remain to be taken?

No, and by design. The process-improvement team that created the concept of EEP recognized that the complexities of implementing a new model for effective compensatory mitigation would require a minimum two-year interim for purposes of fully developing the policies, procedures and process that govern the program.

22. Briefly evaluate (pro and con) the program's effectiveness in addressing the defined problem[s] or issue[s]. Provide tangible examples.

Through the development of an organizational strategic plan in 2004, EEP has set in place a number of measures that will be used to evaluate progress. While the measures have not been employed fully because of the initiative's brief timeline, three outcomes measured by EEP thus far are noteworthy:

- To help facilitate responsible improvements in transportation and other economic development, EEP is improving mitigation in the state. At the end of the last decade, when North Carolina identified problems in delivering on road projects because of permitting delays, the state was seeing 15 percent of the construction projects in its one-billion-dollar highway program sidetracked by lack of mitigation. After the first year of the EEP program, the percentage has dropped to zero. What's more, EEP's mitigation stockpiling has reduced significant delays during highway planning, as mitigation issues no longer have to be addressed in this phase of transportation improvements. EEP's mitigation efforts have helped to move forward nearly \$1.5 billion in road building in the state since July 2003.
- EEP has collaborated with public- and private-sector allies since 2003 to contribute to North Carolina's statutory goal of setting aside an additional one-million acres of natural areas for future generations by 2010. EEP's preservation partnerships to date have helped to protect about 27,000 acres of high-quality assets, including 116 miles of streams and nearly 6,000 acres of wetlands; another nearly 11,000 acres, including about 2,600 acres of wetlands and 115 miles of streams, are currently under option or awaiting final acquisition. Criteria for inclusion of natural areas in the program are a threat of degradation from development, availability for timely acquisition, and ability to provide mitigation within the same ecoregion (EEP has divided the state into eight ecoregions for these purposes). A prime example of an EEP preservation project is the 4,500-acre Needmore tract in Western North Carolina that preserved 27 miles of the Little Tennessee River and 37 miles of tributaries, and links U.S. Forest Service lands with the Great Smoky Mountains National Park.

- To protect water quality and enhance watersheds, EEP and its private-sector partners are carrying out nearly 400 active restoration projects, including 215 stream projects totaling 780,000 linear feet of restoration, and about 7,600 acres of wetland restoration in 125 projects; EEP also has 22 watershed plans completed or underway in cooperation with local partners. The state awarded contracts in 2004 to private-sector firms on EEP wetland, stream and buffer restoration projects worth \$39.7 million, involving 143,000 feet of streams, 625 acres of wetlands and 75 acres of riparian buffers. Requests for proposals were issued in October for a new round of EEP projects worth about \$100 million, involving 450,000 feet of streams, 919 acres of wetlands and 395 acres of buffers.

23. How has the program grown and/or changed since its inception?

As explained in this document, EEP has grown and changed by design over time. From its roots in a cooperative process-improvement initiative, the program has developed the organizational and business framework to function as planned. Staff has been assembled in a single, efficient organization to carry out the program's mission. A physical presence, an organizational brand and a program website have been developed. The program also has nurtured support from stakeholder organizations such as the state chamber of commerce, environmental representatives, road contractors, mitigation bankers, private engineering and biological firms, and land-trust and regulatory-agency representatives. As a part of its structure, the program created a liaison council to advise EEP on the effectiveness of operations and products as it relates to the respective organizations' expectations.

24. What limitations or obstacles might other states expect to encounter if they attempt to adopt this program?

The 2003 memorandum of agreement establishes both an ideal for the initiative's development, and a reality that must be reflected in EEP's productivity. Meeting this reality is a daily challenge for the initiative.

As RTI International found in its *Baseline Assessment Report* (see essay #11), "the program established by the (memorandum of agreement) is complex. As EEP implementation has progressed in year one of operations, the extent of the complexities is now clear."

The report cited the detailed regulatory requirements of the federal Clean Water Act, the need for EEP to absorb and mesh two existing state mitigation programs and the challenge of meeting the memorandum's complex set of rules governing the accounting of mitigation credits as the main challenges faced by EEP during its start-up phase. It would be critical, the report found, for the initiative to develop policies, processes, procedures, information systems and other organizational elements quickly.

The report also found that the mitigation program assumed by EEP would necessarily be a collaborative effort among a variety of state and federal regulatory agencies. "In this sense, the EEP concept will either be a collective success or a collective failure," it stated. "EEP cannot succeed or fail alone."

The process-improvement initiative that led to EEP's creation identified early on a key factor that would influence the fate of rethinking mitigation practices in North Carolina. If a bold new approach were to succeed, then the program's sponsors would have to learn to abandon the status quo. Specifically, the collaborating sponsors would need to resist denial of the needed change, avoid direct resistance to moving forward, creatively explore new roles and relationships, and commit fully to the concept of EEP.

Executing the change process did not always go smoothly and some implementation issues have been slow to resolve. The sponsoring agencies have wrestled with integrating new business processes laid out in the memorandum of agreement, which in turn affected

EEP's timelines and its ability to carry out its mission. For example, NCDOT did not fully realize the importance of its evolving role in the arrangement in terms of planning, project management and determining accurately the impacts that would require mitigation. USACE needed to adjust for the effects of EEP on its own regulatory procedures involving mitigation crediting and accounting. And, NCDENR was forced to resolve issues including new roles for the department's internal enforcement divisions in mitigation, and creation of effective auditing processes to validate water-quality permitting requirements. These obstacles to EEP's success were identified proactively; some continue to be addressed in a spirit of cooperation.

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