

Ken Taylor, N.C. Wildlife Resources Commission

CENTER UPDATE

State Environmental Index Still On The Drawing Board

by Tom Mather

In October 1988, the N.C. Center for Public Policy Research called on state government to produce an "environmental index" that would chart the health of North Carolina's air, water, soils, and other natural resources. That challenge was accepted by former Gov. Jim Martin, who endorsed the idea in his 1989 Inaugural Address and later appointed a blue-ribbon panel to develop guidelines for a state environmental indicators report. But the Martin administration did little to follow through with the proposal, due in part to revenue shortfalls in state government. Now, the future of the program is uncertain under the new Hunt administration, which faces ongoing budget constraints.

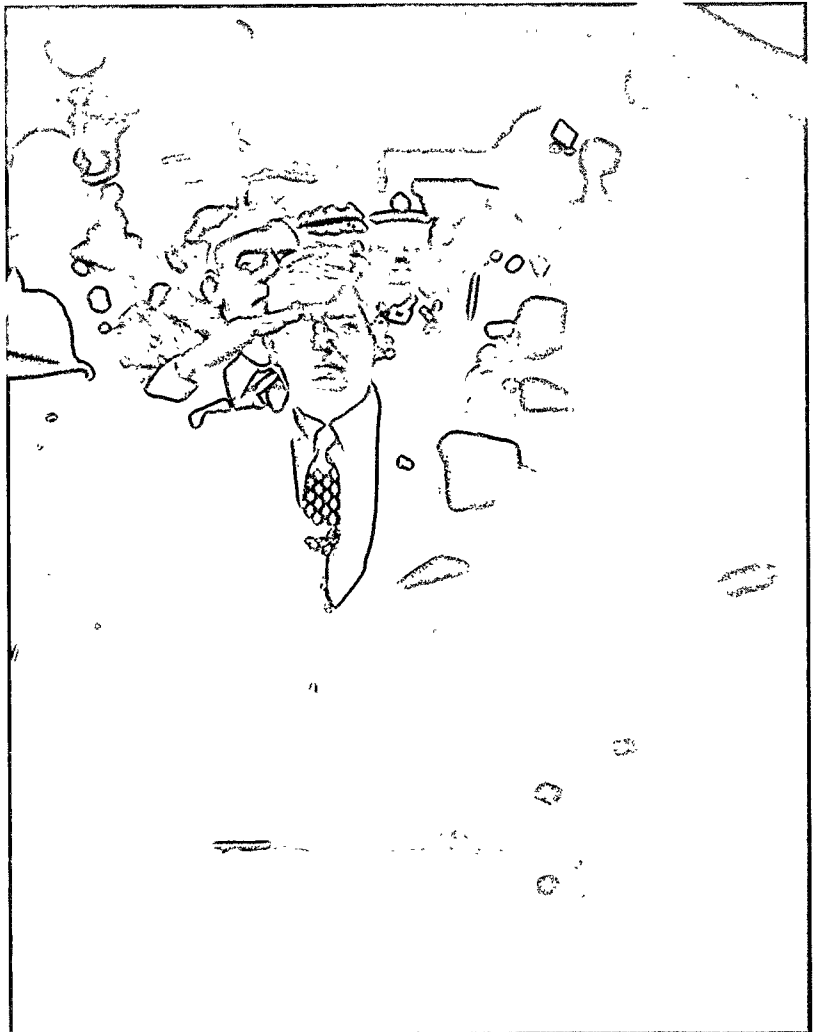
Two years ago, North Carolina appeared well on its way to becoming the first state to devise a set of indicators that would track the condition of its environment and natural resources. Now, the proposed environmental index lies in a bureaucratic limbo—still alive on paper, but foundering for lack of money, staffing, and administrative support.

Former Gov. Jim Martin proposed the environmental index in his 1989 Inaugural Address, crediting the idea to articles published in *North Carolina Insight*.¹ The index, as proposed in *Insight*, would consist of a series of indicators for gauging environmental quality—similar in concept to the leading indicators used to track the health of the nation's economy. Indicators would include objective measures that could show trends in environmental quality or the condition of natural resources. They would differ from regulatory

standards, which are legally defined limits for specific pollutants based on actual or perceived health and environmental effects.

"If you're old enough to cash a paycheck, chances are you can understand and appreciate the basic economic indicators that are published regularly—the inflation rate, the unemployment rate, and interest rates," Center Director Ran Coble said at the time. "But the state has not chosen to publish regular indicators on whether North Carolina's environment is getting better or worse in terms of air quality, water quality, use of land resources, or how we are handling hazardous wastes. The need for a North Carolina Environmental Index—one that could make comprehensive and comparative judgments about our environment—is clear."

Tom Mather is associate editor of North Carolina Insight.



**Former Governor
Jim Martin saluting
during the parade at
his 1989
inauguration.**

Karen Tam

The Center recommended that the state legislature appropriate funds for an index in the 1989–90 session and that the Department of Natural Resources and Community Development (now named the Department of Environment, Health, and Natural Resources) begin publishing the index in 1991. For a while, it looked like that might happen. Governor Martin applauded the Center's proposal during his January 1989 inaugural speech, saying: "I am impressed with this concept, and propose to establish a statewide effort to evaluate the quality of our air, water, and land resources."² Martin later appointed a "blue ribbon" panel on environmental indicators, which released its recommendations in December 1990.³ At the time, state officials called the plan a model for the nation, while seeking monetary support from the U.S. Environmental Protection Agency.

Yet, more than four years after Martin's endorsement, the state still hasn't published its first environmental index and has no firm schedule for doing so. Meanwhile, at least four other states have completed their own indicator reports—dropping North Carolina from front-runner status to one of a pack of states considering such an index. (See the accompanying article, "Other States Move Forward With Environmental Index Reports," on p. 63, Table 1, p. 53, and Table 2, p. 56.)

"There are now about 10 states in a similar situation, saying they want to do something like this," says Kim Devonald, chief of the EPA's Environmental Results Branch in Washington, D.C. "Washington, Oregon, Kentucky, and Florida all have actually produced environmental indicators reports. They didn't get any federal money; they just went ahead and did it."

Project Slowed by Lack of Money, Staff

Despite the slow progress, state officials say they haven't given up on the project. Delton Atkinson, director of the State Center for Health and Environmental Statistics (SCHES), says that his agency has laid the groundwork for producing an indicators report by hiring staff and acquiring computers and other equipment. But he acknowledges that progress has been slow.

"It's indeed taking a long time," Atkinson says of the index report. "It's not on hold, but it's a very, very slow process. It's been interesting, because we've been doing it on a budget of almost nothing. But I think we've got some pieces in place, and we want to build on that."

The Department of Environment, Health, and Natural Resources plans to issue its first environmental indicators report in late 1993 or early 1994, according to project coordinator David Vogt, who is chief of the SCHES's Environmental Statistics and Geographic Information Systems Section. But that timetable, Vogt says, is highly dependent on two factors: funding and staff support. "We're going to do the best we can do with the money we've got," he says, while noting: "There's been no money appropriated to do the report."

Vogt is the department's only employee now assigned to the project, and he says that developing the index represents just a portion of his total responsibilities. In January 1993, Vogt wrote a memo to the department's outgoing secretary, Bill Cobey, summarizing progress on the project and proposing a list of environmental indicators to be included in the initial report.⁴ (See Table 2, p. 56, and Table 3, p. 58.)

Vogt's initial proposal includes about 30 indicators in five general categories: air quality, water quality, groundwater, hazardous waste, and solid waste. His list omits several broad topics—such as wildlife, fisheries, forestry, land use, and radioactive waste—and it is much less detailed than the lists recommended by Governor Martin's blue-ribbon panel and the North Carolina Center for Public Policy Research. (See Table 2, p. 56.) For example, the air quality indicators proposed by Vogt include five major pollutants: carbon monoxide, ozone, sulfur dioxide, nitrogen dioxide, and particulate matter. In contrast, the governor's panel recommended those five indicators as well as measures of lead, visibility, acid precipitation, toxic air emissions, motor vehicle emissions, airborne radioactivity, and radon gas.

Nevertheless, Vogt says the department would have trouble compiling even his pared-down list with its existing staff and funding. To complete the index in a timely fashion and update it every two years, he says, the department would need to hire at least one full-time statistician—at a minimum cost of about \$60,000 a year, including money for computers, equipment, and travel expenses. That cost is comparable to what other states have spent producing similar reports. (See the accompanying article, "Other States Move Forward With Environmental Index Reports," p. 63, and Table 1, p. 53.)

"What we really need from somebody—the federal government or the state—is the amount of money needed to support one full-time position to work on the environmental indicators program,"

Table 1. State Environmental Reports

State, Agency	Report Name	Cost (est.)	Environ. Indicators (number)	Narrative Discussion	Management Issues ¹	Goal Setting ²
FLORIDA Department of Environmental Regulation	"Strategic Assessment of Florida's Environment"	\$50,000	Yes (124)	Limited	Yes	No
KENTUCKY Environmental Quality Commission	"State of Kentucky's Environment"	\$80,000	Yes (about 300)	Extensive	Yes	No
NORTH CAROLINA Department of Environment, Health, and Natural Resources	"State of the Environment"	Not Avail.	Yes (about 35) ³	Extensive	Yes	No
OREGON Progress Board	"Oregon Benchmarks"	Not Avail.	Yes (about 20)	Limited	Yes	Yes
WASHINGTON Department of Ecology	"State of the Environment"	\$75,000-\$100,000	Yes (about 10)	Extensive	Yes	Yes

¹ Report includes discussions and/or indicator charts dealing with management issues such as expenditures on various environmental programs, numbers of regulatory actions taken, and numbers of licenses issued.

² Report sets targets or goals dealing with environmental conditions or management programs.

³ The "North Carolina State of the Environment Report, 1991" includes about 35 charts showing indicators for various environmental conditions and management programs. However, the department has not consistently tracked the same indicators in previous editions of the report and currently has no plans to do so.



An environmental index could show whether discharges of water pollutants into the state's streams and lakes are increasing or declining.

Vogt says. "I'm essentially the only person working on environmental indicators. We're limited right now by the lack of staff as far as what we can do with the environmental indicators report."

Vogt had hoped to pay for an additional position with a \$48,000 grant he had sought from the U.S. Environmental Protection Agency. But the EPA, in the face of tighter federal budgets, has backed away from helping pay for the project. "We were supposed to be a model state, as far as the country goes, to do indicators," Vogt says. "But [the EPA's] dollars are getting much tighter. So they're shifting more and more to strategic planning and comparative risk—and environmental indicators falls out within that framework."

Devonald, the EPA administrator, says that other states have produced index reports while facing budget constraints comparable to North Carolina's. "I really felt that North Carolina had the makings of a really good program," Devonald says, while noting that the state of Kentucky produced a report within months after receiving a briefing on the North Carolina proposal. "It was

surprising—in one year, Kentucky had produced this really good report. While in North Carolina, it seems that the environmental agency did not allocate the same amount of staff time or support to get this thing done."

Vogt agrees that the North Carolina project has gone slower than anticipated. But he says it's not fair to compare the proposed North Carolina report with those done in other states. "I've seen the Washington and Oregon reports, and they're basically 'State-of-the-Environment' reports—which we've already done. Although these reports contain indicators data, that information is not presented as in-depth analyses. Thus, I do not consider them as full-fledged environmental indicators reports. They're more or less piecing together odds and ends. So that's a little misleading." Devonald disagrees with that assessment, and a Center review of reports from other states shows that they all include environmental indicators data—with widely varying levels of detail. (See the article, "Other States Move Forward With Environmental Index Reports," on p. 63, and Table 2, p. 56.)

Environmental Index Would Focus On Resources, Not Management

The State of the Environment report that Vogt refers to is a document describing North Carolina's environmental *policies and programs* that the department has published biennially since 1987. The General Assembly directed the department to produce a report "on the state of the environment" every two years under G.S. 143B-278.1, enacted in 1985. The reports, published in 1987, 1989, and 1991, have focused on regulatory policies and programs.⁵ However, the reports do contain some general information on environmental trends and problems.

In the 1988 *Insight* article, the Center praised the department's 1987 report for including much valuable information on water quality permits, land-use plans, dredge and fill permits, sedimentation permits, and other environmental management efforts. But the Center said the focus on managing and regulating the environment was one step removed from measuring the actual progress or decline in environmental resources themselves. In other words, the *inputs* for managing a resource do not necessarily reflect the *outcome* on that resource.

An environmental index, as envisioned by the Center, would complement the biennial State of the Environment report mandated by the legislature. The Center proposed that the state begin with indicators for air, water, and land resources—eventually expanding to such areas as wildlife, parks and recreation, and wastes (radioactive, hazardous, and solid). (See Table 2, p. 56.) The Center recommended that the index have at least three components: 1) *quantitative measures* of key environmental resources; 2) *data for a span of years*, to indicate trends over time; and 3) *narrative discussions* that interpret the information for the pub-

lic, analyze whether the indicators show improvements or degradations in the environment, and present management options. The Center also recommended that the department compile the index annually, use reliable data, and present the information in a format simple enough for the average citizen to understand.

Environmental Index Could Have Many Benefits

Proponents cite a number of reasons for producing an environmental index. Most importantly, it would help the state identify key environmental problems and focus more attention on them. It also could help settle disputes among bureaucrats, politicians, environmentalists, and business leaders about whether pollution problems are getting better or worse. (See Table 4, p. 60.) And it could provide state officials with invaluable feedback on the effectiveness of laws and regulatory programs.

"This is a win, win situation for everybody," says Dave Moreau, chair of Governor Martin's blue-ribbon panel on environmental indicators and director of the University of North Carolina's Water Resources Research Institute.⁶ "This is not simply a good idea. It is essential to the setting of environmental policy, to the allocation of financial resources, and to the administration of environmental programs. . . . The more I got into the project, it became clear that information of that kind is a necessity for administering the Department of Environment, Health, and Natural Resources. We run the risk of making costly errors in setting policy without the kind of information called for in the report."

The proposal has won support from environmentalists as well as business leaders. "I would be concerned about requiring another report from

government agencies without providing additional support to the agencies to do the job," says Bill Holman, lobbyist for the Sierra Club and the Conservation Council of North Carolina. "But I think the environmental index is a tremendous opportunity to measure our progress or lack of progress in protecting the environment."

Anne Griffith, chief lobbyist and vice president for governmental and legislative affairs for N.C. Citizens for Business and Indus-

"THIS IS A WIN, WIN SITUATION FOR EVERYBODY. THIS IS NOT SIMPLY A GOOD IDEA. IT IS ESSENTIAL TO THE SETTING OF ENVIRONMENTAL POLICY, TO THE ALLOCATION OF FINANCIAL RESOURCES, AND TO THE ADMINISTRATION OF ENVIRONMENTAL PROGRAMS."

—DAVE MOREAU,
DIRECTOR OF THE UNC WATER
RESOURCES RESEARCH INSTITUTE



Table 2. Comparison of Proposals for a North Carolina Environmental Indicators Report with Existing Reports from Other States

Major Indicator ¹ Categories	North Carolina Proposals ²			Other States ³			
	DEHNR	Governor	NC Center	Florida	Kentucky	Oregon	Washington
Air Quality	●	●	●	●	●	●	●
Acid Deposition		●	●		●		
Indoor Air, Radon		●			●		
Visibility		●					
Climate Change			●		●		
Water Quality	●	●	●	●	●	●	
Water Quantity		●	●	●	●	●	
Groundwater	●	●	●	●	●	●	
Hazardous Waste	●	●	●	●	●	●	
Radioactive Waste	●	●	●	●	●	●	
Solid Waste	●	●	●	●	●	●	
Recycling	●		●	●	●		
Pesticides	●	●		●	●	●	●
Population				●	●		●
Land Use		●	●	●	●	●	●
Forestry		●	●	●	●	●	●
Wetlands		●		●	●	●	
Fish & Wildlife		●	●	●	●	●	
Endangered Species		●	●	●	●	●	●
Parks, Natural Areas		●	●	●	●	●	
Mining		●			●		
Energy Use					●		●
Infrastructure				●	●	●	
Environ. Investment				●	●		
Public Perceptions				●			

¹ Reports may include many different indicators within major categories. For example, air quality may include separate indicators for various pollutants, such as ozone, lead, particulates, sulfur dioxide, nitrogen oxides, carbon monoxide, and toxics.

² North Carolina indicators as proposed by the following: DEHNR—David Vogt, memorandum to Secretary William Cobey regarding Environmental Indicators Program, Jan. 6, 1993, State Center for Health and Environmental Statistics, N.C. Department of Environment, Health, and Natural Resources. Governor—"Final Report and Recommendations of the Governor's Blue Ribbon Panel on Environmental Indicators," N.C. Department of Environment, Health, and Natural Resources, December 1990. N.C. Center—N.C. Center for Public Policy Research, "What Should Go in a North Carolina Environmental Index?" *North Carolina Insight*, Vol. 11, No. 1 (October 1988), pp. 26–28.

³ Indicators included in the following reports: "Strategic Assessment of Florida's Environment," Florida Department of Environmental Regulation, Office of Planning and Research, Tallahassee, Fla., March 1993. "State of Kentucky's Environment," Kentucky Environmental Quality Commission, Frankfort, Ky., 1992. "Oregon Benchmarks," Report to the 1993 Legislature, Oregon Progress Board, Salem, Ore., December 1992. "The 1991 State of the Environment Report," Washington State Department of Ecology, Olympia, Wash., July 1992.

try, says the primary value of an environmental index would be to help state officials set spending priorities for various regulatory programs. "I think probably the reason it has bogged down is the same reason you need the thing—and that is that there are no priorities." That view is echoed by George Everett, executive director of the Chemical Industry Council of North Carolina. "I certainly believe that everybody ought to support it," says Everett, former director of the state Division of Environmental Management. "In a time of limited dollars, the question is: Where are you going to spend not only environmental money, but all money? And that's where an environmental index is going to help. The resources are spread all over the place, and the agencies are trying to do too many things. In addition to letting people know the status [of the environment], it also gives you some direction."

A well-designed environmental indicators program also could support the push for more "results-oriented" government as called for by the state Government Performance Audit Committee, or GPAC.⁷ The panel, in its report to the 1993 General Assembly, identified a greater focus on results as one of the keys to improving the efficiency of state government.⁸ Indicators that objectively measure the results of environmental management programs—such as tracking the percentage of people who live in areas meeting air pollution standards—could help determine whether regulatory programs are working or not.

Doug Lewis, director of planning and assessment for the Department of Environment, Health, and Natural Resources, says that environmental indicators data could assist the department's decision-making from top to bottom. Such information, he says, could help in formulating goals, establishing priorities, evaluating risks, educating the public, developing management objectives, and measuring the success or failure of programs. "Underlying all of this is good information—environmental indicators that are accurate and reliable," Lewis says. "I tend to view environmental indicators as a foundation for the whole strategic planning process."

Budget Cuts, Lack of Administrative Support Contribute to Delay

Despite broad support for the indicators program, many observers are discouraged by the Department of Environment, Health, and Natural Resources's slowness in getting the project un-

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—GEORGE EVERETT, EXEC. DIR.,
CHEMICAL INDUSTRY COUNCIL OF N.C. AND
FORMER DIRECTOR, STATE DIVISION OF
ENVIRONMENTAL MANAGEMENT

der way—although they blame much of that inertia on revenue shortfalls in state government. "There has been relatively little progress on it," says Moreau. "But there are two realities: One is the budget crunch; the other is the question of relative priorities given the other responsibilities that this department has to take care of."

Moreau faults department administrators for not making the environmental indicators project a higher priority and for bickering over details. "To get it done, I think it's going to need more leadership than the department has given it to date," he says. "You can debate format forever and ever. To resolve that is simply a matter of getting some leadership that says, 'We can't satisfy everybody with it, but this is how we're going to do it.' The commitment has to come from the top."

The department, Moreau says, should publish an initial report using relatively simple indicators drawn from the best available information and then refine the report in later editions. "I would really encourage them to start simple, but go ahead and start," he says. "I just think we need to move forward on it. We need to develop a factual basis for policy-making in North Carolina. Without that, we are left at the mercy of anecdotal information in setting policy."

Everett agrees that the department needs to make the index a higher priority. But he disagrees with the notion of producing an abbreviated report that could be added to later. "Attempting to simply get out an index with the intent of improving it later is a very dangerous approach," he says. "...

Table 3. Proposed Environmental Indicators for North Carolina¹

Air Quality

- Carbon Monoxide
- Ozone
- Sulfur Dioxide
- Nitrogen Dioxide
- Particulate Matter

Water Quality

- Dissolved Oxygen
- Nutrients (phosphorus and nitrogen)
- Turbidity
- Fecal Coliforms
- Conductivity
- Toxicity
- Total Suspended Solids

Groundwater

- Water Levels
- Pesticides
- Contaminants from Incidents

Hazardous Waste

- Total Waste Generation
- Waste Generation by Category (one-time cleanups, normal operating procedures, wastewater, etc.)
- Waste Generation by Industrial Classification
- On-site and Off-site Storage
- Waste Transportation

Solid Waste

- Total Waste Deposition
- Waste Deposition by Category (landfill or incineration)
- Landfills with Groundwater Contamination
- Types of Waste Reduction
- Waste Reduction Progress
- Number of Recycling Programs
- Total Waste Recycled

¹ Source: David Vogt, "Environmental Indicators Program," memo to Secretary William Cobey, N.C. Department of Environment, Health, and Natural Resources, Jan. 6, 1993, 11 pp. Governor James G. Martin's Blue Ribbon Panel on Environmental Indicators recommended a much more extensive list of indicators in its December 1990 report. For example, the air quality category included the five indicators above, as well as measures of lead, visibility, acid precipitation, toxic air emissions, motor vehicle emissions, airborne radioactivity, and radon and other indoor air pollutants. The report also recommended indicators for other broad topics, such as wildlife, fisheries, land use, and forestry.

I agree that the index must be simple for people to understand, but I also believe the index must have substantial scientific basis or it will be challenged as inadequate. Perhaps there needs to be an accurate, comprehensive index from which a simplified number can be generated for media use."

New Administration Pledges More Support, But Not Funding

Steve Levitas, the new deputy secretary of the Department of Environment, Health, and Natural Resources, says the Hunt administration considers the environmental indicators report an essential project. But he doesn't promise that the program will receive any more money than it did under the Martin administration.

"We are looking at a lot of ways to redirect resources and try to do our jobs better—and this is certainly one of them," says Levitas, a member of Governor Martin's blue-ribbon panel and former director of the N.C. Environmental Defense Fund, a private nonprofit conservation group. "Our biggest constraint, of course, will be finding the resources to do this job and do it well. No new resources were directed to this effort in the prior administration, and I don't know if we'll be able to find any for it. We've been able to make a lot of progress considering that there's been no additional money for it in the budget."

One of the main reasons the state hasn't produced an environmental index yet, he says, is that the project is much more complex than envisioned. Martin's blue-ribbon panel concluded that it wouldn't be meaningful to produce a simple environmental index—comparable, for example, to the index of leading economic indicators used to gauge the strength of the nation's economy. Instead, the panel proposed tracking a detailed list of environmental indicators falling under major categories such as air, surface water, groundwater, hazardous waste, and solid waste.

"We are very committed to producing something that is meaningful to the general public, but it's not likely to be a single snapshot about the environment," Levitas says. "It's just very complicated business. We don't want to be putting out a report on trends and data that in fact is not really communicating the whole story."



The Hunt administration sees the environmental index as much more than a tool for gauging environmental quality and identifying pollution problems, he says. "Our greatest goal will be to produce information that will help us set priorities and not just to produce more reports," Levitas says. "To be truly useful, we need to take this project the next step and look at how we evaluate risk and how we compare different kinds of environmental problems so we can set priorities. . . . This administration is committed to doing a better job of setting environmental priorities and making strategic decisions about how to allocate the limited resources we have—and the environmental indicators report is potentially a very valuable tool toward that end."

Recommendations

Former Governor Jim Martin deserves credit for endorsing the development of a state environmental index and establishing a panel to study the concept. Unfortunately, the Martin administration did little to follow through with the proposal. Despite four years of study, the state has nothing to show for its effort other than an outline proposed by the Department of Environment, Health, and Natural Resources. The state's recent budget shortfalls undoubtedly contributed to the delay, as well as the complexity of the subject. But similar budget problems haven't stopped four other states from making the modest financial commitment needed to start and complete environmental index reports during the time that North Carolina officials have been talking about the concept. Now it's time to produce.

The N.C. Center for Public Policy Research

"OUR GREATEST GOAL WILL BE TO PRODUCE INFORMATION THAT WILL HELP US SET PRIORITIES AND NOT JUST TO PRODUCE MORE REPORTS. TO BE TRULY USEFUL, WE NEED TO TAKE THIS PROJECT THE NEXT STEP AND LOOK AT HOW WE EVALUATE RISK AND HOW WE COMPARE DIFFERENT KINDS OF ENVIRONMENTAL PROBLEMS SO WE CAN SET PRIORITIES."

—STEVE LEVITAS
DEPUTY SECRETARY,
DEPARTMENT OF ENVIRONMENT,
HEALTH, AND NATURAL RESOURCES

Table 4. Why North Carolina Needs an Environmental Index

An environmental index would be based on a careful analysis of data over time. It could help state officials and lawmakers make rational judgments about where to spend money on environmental problems and could help settle disputes over whether our environment is improving or declining.

Using existing reports and data, one could cite evidence showing that:

The Environment Is Improving

1. North Carolina ranked 1st in surface water protection and 9th in overall environmental protection in a 50-state study by Renew America in 1988.¹
2. North Carolina tied for 3rd in a 50-state ranking of programs for protecting drinking water in a 1989 study by Renew America.²
3. Only 7 percent of North Carolina's residents lived in counties not meeting federal clean-air standards in June 1988, ranking the state 5th among the 50 states in a 1989 study by Renew America.³
4. The volume of low-level radioactive waste shipped for disposal dropped by 52 percent in North Carolina from 1985 to 1990, according to the state Department of Environment, Health, and Natural Resources.⁴
5. North Carolina increased its annual operating expenditures for its state parks by 72 percent from FY 1985-86 to FY 1990-91, according to the state Department of Environment, Health, and Natural Resources.⁵
6. North Carolina has retained about three-fourths (76 percent) of the 7.8 million acres of wetlands that originally covered the state, according to the state Department of Environment, Health, and Natural Resources.⁶

The Environment Is Being Degraded

1. North Carolina ranked 28th in water pollution problems and 23rd in overall environmental conditions in a 50-state analysis by the Institute for Southern Studies in 1991.⁷
2. North Carolina ranked 21st in the percentage of water systems in significant non-compliance with drinking water standards in a 50-state analysis by the Institute for Southern Studies in 1991.⁸
3. The Raleigh and Greensboro metropolitan areas were two of only 18 urban centers in the nation that violated federal standards for both ozone and carbon monoxide from 1987 through 1989, according to the U.S. Environmental Protection Agency.⁹
4. North Carolina generators shipped more low-level radioactive waste for disposal than any other state in the U.S. in 1987, according to the Institute for Southern Studies.¹⁰
5. North Carolina spends less money per capita on its state park system than virtually any other state, ranking 49th out of 50 in 1988, according to the National Association of Park Directors.¹¹
6. North Carolina has lost nearly half (49 percent) of the 11.1 million acres of wetlands that originally covered the state, according to the U.S. Fish & Wildlife Service.¹²

recommends the following measures to ensure that state officials follow through with the plan for an environmental index:

1) The North Carolina General Assembly should appropriate \$90,000 for the Department of Environment, Health, and Natural Resources to produce the index report. That amount would include funds for hiring and equipping the full-time researcher that department officials say is needed to produce the report, as well as money for graphics and printing. Such an appropriation would be a mere drop-in-the-bucket compared to the department's total expenses—amounting to less than .02 percent of the department's \$488 million budget proposed for FY 1993–94 and less than .0006 of the state's \$15.9 billion budget proposed for FY 1993–94.⁹

The environmental indicators program would go hand-in-hand with the push for more “results-oriented” government that the Government Performance Audit Committee called for in its report to the 1993 General Assembly. It also would be money well spent, as the index would help identify spending priorities and provide objective numbers for measuring the success or failure of programs for curbing pollution and managing natural resources. Finally, the \$90,000 figure compares favorably with the amounts spent by other states that have produced index reports—an estimated \$50,000 in Florida, \$80,000 in Kentucky, and \$75,000–\$100,000 in Washington.

2) The Hunt administration needs to make

the production of an environmental index a top priority and direct officials in the Department of Environment, Health, and Natural Resources to fully cooperate in the effort. The administration already has a detailed set of recommendations produced by Martin's blue-ribbon panel on environmental indicators. If those recommendations are too detailed to implement quickly, the department should select a set of key indicators to include in an initial report and then expand the list in subsequent editions.

The list of indicators proposed by program administrator David Vogt is a good starting point, but it excludes important areas—such as wildlife, land use, radioactive waste, and inactive hazardous waste sites—that should be included in a comprehensive index. As a goal, the department should try to compile a wide-ranging list of indicators as included in the index reports for Kentucky and Florida. Indeed, the department could compile a comprehensive and detailed list of indicators from *existing* data sources without having to collect any new information.¹⁰ □ □ □

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Editor's Note: After reviewing a draft version of this article, Rep. Karen Gottovi (D-New Hanover)—in consultation with the N.C. Department of Environment, Health, and Natural Resources—introduced a bill (H.B. 1463) that would allocate \$90,000 to the department for the preparation of a state environmental index. Budget conferees for the House and the Senate reduced the amount to \$50,000, which was included in the legislature's final budget bill, Chapter 321 of the 1993 Session Laws (S.B. 27), ratified July 9, 1993.

FOOTNOTES

¹ Scott Ridley, “The State of the States, 1988,” *Renew America*, Washington, D.C., February 1988.

² Scott Ridley and Rick Piltz, “The State of the States, 1989,” *Renew America*, Washington, D.C., February 1989.

³ *Ibid.*

⁴ “North Carolina State of the Environment Report, 1991,” N.C. Department of Environment, Health, and Natural Resources, Raleigh, N.C., p. 19.

⁵ *Ibid.*, p. 24.

⁶ “Original Extent, Status and Trends of Wetlands in North Carolina,” Report to the N.C. Legislative Study Commission on Wetlands Protection, N.C. Department of Environment, Health, and Natural Resources, Sept. 1991, pp. i–ii.

⁷ Bob Hall and Mary L. Kerr, “1991–1992 Green Index,” Institute for Southern Studies, Durham, N.C., 1991, pp. 4–5.

⁸ *Ibid.*, p. 38.

⁹ The Associated Press, “Cities flunking smog tests,” *The News & Observer*, Raleigh, N.C., Aug. 17, 1990, p. 8A.

¹⁰ Hall and Kerr, p. 53.

¹¹ See Bill Krueger and Mike McLaughlin, “North Carolina's State Parks: Disregarded and in Disrepair,” *North Carolina Insight*, Vol. 11, No. 1 (October 1988), pp. 31–46.

¹² Thomas E. Dahl, “Wetland Losses in the United States, 1780's to 1980's,” Report to Congress, U.S. Department of the Interior, Fish & Wildlife Service, Washington, D.C., August 1990, 21 pp.

FOOTNOTES

¹ See Bill Finger, "The State of the Environment: Do We Need a North Carolina Environmental Index?," and related stories in *North Carolina Insight*, Vol. 11, No. 1 (Oct. 1988), pp. 2-28.

² Martin's address, as reprinted in *The News & Observer* of Raleigh, N.C., Jan. 8, 1989, p. 8A, referred to the Center's proposal as follows:

"Along with better schools, better roads and better jobs, we must also get serious about better environmental protection. That means that we must do what it takes to identify the more serious environmental problems, and to apply our resources to deal with the real wolves rather than chasing after rabbits.

"How can we tell the difference? The N.C. Center for Public Policy Research has recommended taking an environmental index, both to assess the state of the environment of the state and to provide a quantitative basis for tracking our progress in dealing with it. Mecklenburg County has already launched a countywide program.

"I am impressed with this concept, and propose to establish a statewide effort to evaluate the quality of our air, water, and land resources. I will appoint a blue-ribbon panel of citizens from a cross-section of backgrounds from all across the state.

"They will hold a series of hearings, and submit recommendations for standards and for action, and help us set measurable targets for improvement, so that we can know whether we are doing something useful."

³ "Final Report and Recommendations of the Governor's Blue Ribbon Panel on Environmental Indicators," N.C. Department of Environment, Health and Natural Resources, December 1990, 51 pp. For more on the panel, see Tom Mather, "Panel urges study to assess environmental status," *The News & Observer*, Raleigh, N.C., Feb. 6, 1991, p. 3C; and "Panel to track N.C. resources with 'environmental indicators,'" *The News & Observer*, Oct. 23, 1989, p. 1C.

⁴ David Vogt, memorandum to Secretary William Cobey regarding Environmental Indicators Program, Jan. 6, 1993, State Center for Health and Environmental Statistics, N.C. Department of Environment, Health, and Natural Resources.

⁵ The department was preparing, but had not yet released, the 1993 State of the Environment report at publication time.

⁶ Other panel members were: Sen. Betsy Cochrane (R-Davie); Rep. Marie Colton (D-Buncombe); G. Douglas Carroll, director of the joint planning board for Winston-Salem and Forsyth County; Ellis Cowling, professor of natural resources at N.C. State University; Jerry Cox, a Belhaven farmer; Richard Dunford, senior economist at Research Triangle Institute; Richard Hargitt, area manager for health and environmental affairs with E.I. DuPont de Nemours & Co. in Kinston; Ladson Hart, a Brevard attorney; Milton Heath, professor and assistant director of the Institute of Government at UNC-Chapel Hill; Steve Levitas, then director of the N.C. Environmental Defense Fund and now deputy

director of the N.C. Department of Environment, Health, and Natural Resources; Charles Manooch, research biologist with the National Marine Fisheries Service in Beaufort; and Daniel Okun, professor emeritus of environmental engineering at UNC-CH.

⁷ The legislature created GPAC in dealing with the state's 1991 budget crisis under Chapter 689 of the 1991 Session Laws (H.B. 83), Sec. 347.

⁸ See "Our State, Our Future," Report of the North Carolina Government Performance Audit Committee, N.C. General Assembly, Raleigh, February, 1993, pp. 31-37.

⁹ The department's \$488 million total budget proposed for FY 1993-94 includes \$207 million in General Fund appropriations, \$203 million in federal funds, \$5 million in highway funds, and \$72 million in other funds, such as receipts from fees and licenses. Department and state budget numbers are taken from *The North Carolina State Budget, 1993-95 Biennium*, Governor James B. Hunt Jr., Supplemental Budget Recommendations, February 1993, p. 3.

¹⁰ The Governor's Blue-Ribbon Panel on Environmental Indicators identified numerous existing data sources that could be drawn from in its December 1990 report. In addition, the Department of Environment, Health, and Natural Resources in November 1991 published a report, "North Carolina Inventory of Environmental Data Sets," that outlines existing data sources in great detail.

