



University of North Carolina Sea Grant Program NEWSLETTER

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**What do you want for
your county's future?
Heavy development? No
development? Some-
thing in between?**



Robert N. Elliott

On coastal land use:

It's time to speak up

A lot of folks these days are saying that government has gotten too big. The individual, some would tell you, just doesn't have much say about how things are run anymore.

That may be true in some places and some aspects of life. But in coastal North Carolina, the individual is getting his chance. In fact, in the next few months, he can voice views that could shape the future of his county and the quality of life for years to come.

Coastal citizens will have a chance to speak out on whether their town or county should keep a rural atmosphere, whether lands should be used for factories and how many people they think should eventually live in their area.

When they give their views on these and other questions, coastal residents will be participating in land use planning or coastal area management. That sounds pretty complicated. But simply put, it's sitting down today and deciding what you want your town or county to be like tomorrow. And it's basing those decisions on the ability of the area's natural resources to support growth.

Planning in the state's coastal counties got underway months ago and already citizens have played a vital role. The state legislature

(See "It's," page 3)



Keeping nature's forces in mind can help you avoid this.

Coping with coastal environments

OK. So you've scraped and saved and finally you've got the money to buy that second home, the one you always wanted down at the beach.

You rush out to buy a house with the right number of bedrooms, a large kitchen and all the other interior features your family wants and can afford.

But what about outside? Sure you look at the garage and the driveway and you know the exact dimensions of your lot.

But what about the natural forces huffing and puffing at your door? Sometimes developers develop and buyers buy without really considering how nature is acting on a particular spot. By knowing something about natural forces—like tides, winds and plants—which daily shape coastal lands, you might be able to avoid the heartache of seeing nature cash in on your investment.

Right now a UNC Sea Grant team is putting together a handbook that should help you understand and work in harmony with these natural forces.

This is how the handbook might help you.

Say your land had a dune in its southeastern corner. You want to build on your land, but you've heard that dunes move. From the handbook, you could learn what forces are acting on dunes, the direction they normally migrate and how fast they move. Answers to these questions should help you determine if your development plans conflict with nature's forces. The book will also give you information to help you live with a marsh, an estuary, inlets and other coastal features.

Another section will explore the impact of making physical changes in different types of coastal environments. You could learn, for instance, what happens when seawalls are built in front of dunes or what effects filling a marsh may have.

Along with this kind of information, the handbook will describe policies which local governments could use to guide where development occurs. Policies included in the book will be based on the unique set of natural forces acting and interacting on particular types of environments or "habitats."

The handbook, which doesn't have a name yet, is expected out next summer. It draws on the talents of marine scientists who have researched the natural forces of the coastal environment and lawyers and planners who have expertise in policy areas. David Brower of UNC-Chapel Hill's Center for Urban and Regional Studies is leading the project.

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Air photos are useful planning tool

From the ground, it's tough to see the forest for the trees. But from the air, you can see the forest—and much more. You can trace rivers, see where large numbers of trees have been cut, where houses are built and what borders on the forest's edge.

By teaming up camera with airplane, you can capture all kinds of information about the forest in a mere fraction of a second. Besides giving you a quick picture of what's going on in the forest, air photos taken today and compared with next year's tell you in a glance how things are changing.

Developers and planners often need the kind of overview aerial photographs provide. Many are already finding them a useful planning tool.

To help North Carolina's coastal county planners and developers make better use of aerial photos, UNC Sea Grant advisory services agent Simon Baker is compiling a directory of existing aerial photographs covering 44 eastern North Carolina counties. The directory, which he expects out by spring, will include a section on how to use aerial photography in land-use planning and will explain procedures for ordering the imagery, much of which dates back many years, he said.

Baker himself is using a set of aerial photographs taken in 1974 by the N. C. Department of Transportation in a study of land-use on the Outer Banks. Baker's analysis of the 1974 photos should provide a handy base for detecting trends in uses of the barrier islands.

According to the Sea Grant advisory agent, aerial photos from the past allow us to see how lands have been used and how they came to be used as they are today. Such information is useful in planning for the future, he said.

It's a question of what you want your area to be like tomorrow

(Continued from page 1)

passed the Coastal Area Management Act in April, 1974. Since July of last year, counties and municipalities, aided by their citizens, have worked to draw up local land use plans which the law requires. In brief, the plans identify the major land use issues facing an area and set forth objectives to help guide future growth based on current land uses and the ability of natural resources to support different types of development.

On November 23, those local plans were submitted to the Coastal Resources Commission (CRC), the state agency charged with implementing the Act, for review. In January, the CRC will return the plans for another round of citizen review. Local governments must adopt their plans by May 21 and return them to the CRC for the final approval that is needed before they are put into effect.

Whether a plan is approved depends largely on how much citizen participation goes into them. So between January and May, your voice will count.

Sure, you say. They want me to get involved. But how? I don't understand all those high-falutin' words that planners and government types use, you tell yourself. If I don't understand, how can I speak out?

The people in charge of getting coastal management rolling know how you feel. And they're trying to help you get on the inside of the planning process.

Under guidelines of the CRC, local governments are to write a synopsis, or summary, of their land use plans in non-technical language. It is to be distributed widely among local citizens.

The synopsis will give you an overview of land use problems that are important in your county or town. It will state the goals and objectives for future land use in your area and tell you how and why those goals were determined. From the synopsis, you'll be able to learn how lands came to be used as they are and how much development available natural resources can tolerate without being threatened. You'll be given information on how population growth in your area might put new demands on services like water and sewer.

Along with the synopsis will be a list of proposed areas of environmental concern, areas in which development should be carefully watched in order to conserve resources. An accompanying map of your county or town will indicate which lands will be used for high or low density development, which will be maintained for rural activities such as farming and which should be conserved for their environmental value or because development there would be unsafe.

If you don't get a copy of your local government's synopsis, or if you disagree with what you find in it, you should get on the phone to your county or town planning board. In some areas citizen advisory committees have been set up. These are another channel for your thoughts. And any questions—or answers—about the Coastal Area Management Act or land use planning will be heard if you call The Coast Line collect at (919) 829-2293 during business hours.

During the coming months, there will be opportunities to find out what's happening in the state's coastal zone, to have a part in shaping its future. But it's up to the individual to get informed and get involved. It's a chance for the individual to turn the tables and tell his government how to run things.

Look for a synopsis, or summary, of your town's or county's land use plan during January and February. In non-technical language, it will tell you about land use problems that are important in your area and will state goals for land use. It will explain how these goals were determined.

The synopsis isn't final. You have until mid-May to make your thoughts on the plan known. It's a good chance to have a voice in your future.

If you don't see the synopsis and if you have something to say about it—whether in agreement or disagreement—let your county planning board know. Or call The Coast Line at (919) 829-2293 collect during office hours.

Energy from the ocean: fact or fantasy?

Is it fact or mere fantasy that the oceans will furnish tomorrow's energy?

A conference on energy from the oceans, set for Jan. 27-28 in Raleigh, will bring together some of the world's leading experts on ocean energy research to answer this and more specific questions on ocean energy sources.

Dr. R. Cohen of the Energy Research and Development Administration will present an overview of ocean energy research and the U.S. Energy from the Ocean Program.

Speakers, including W. E. Heronemus of the University of Massachusetts and S. H. Salter of the University of Edinburgh, will discuss the potential of energy from the seas' winds and waves. Other speakers will explore the possibilities and problems of capturing energy generated by differences in ocean temperatures, known as ocean thermal energy.

Legal, political and environmental aspects of using oceans for thermal energy production will be the topic of a morning session during the meeting's second day. Other sessions will address the problems of transporting ocean-produced energy to inland users and the possibilities of ocean thermal power plants off the nation's southeast coast.

The conference should be of interest to government, university and industry representatives engaged in ocean and energy programs as well as any support agencies and industries such as electric utilities, shipbuilding firms and environmental consultants. Sponsors include the UNC Sea Grant Program, the Coastal Plains Center for Marine Development Services, the NCSU Center for Marine and Coastal Studies and the Division of Continuing Education.

Hotel reservations should be made directly with the Hilton Inn, Hillsborough Street, Raleigh, N.C. 27607. A \$35 registration fee should be paid to the Division of Continuing Education, P.O. Box 5125, N. C. S. U., Raleigh, N.C. 27607. Attention: John B. Gordon.

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Do some need special care?

Some people believe that some of our coastal lands and waters need special care.

The state's Coastal Area Management Act reflects their belief. It says that some parts of the coast are to be designated "areas of environmental concern" (AECs). In areas that are so designated, man's activities will be more closely guided to insure that we not destroy these resources.

Before we can make sound decisions on what lands and waters are named AECs, we need to know why they may be worth special treatment or why it may be unsafe to use them.

Coastal Development and Areas of Environmental Concern, UNC Sea Grant Publication 75-18, explains why some people think some areas are important enough to be AECs. Most of those who contributed to the publication, and to the spring symposium from which it is compiled, are scientists who have studied marsh, dunes, estuaries and historic and archaeological sites. Their thoughts are based on years of research which here is summed up in language the non-scientist can understand.

Tying in with the publication, which was edited by Simon Baker of the UNC Sea Grant advisory services program, is a film which will discuss the importance of dunes, estuaries and marsh. Under production by Les Thornbury, N. C. State University landscape architecture student, the film should be available for viewing by clubs, civic organizations, school groups and at public gatherings by February 1.

Both the film and the publication are designed to provide the citizen with information needed to make sound decisions about how his lands will be used in the future.

To order *Coastal Development and Areas of Environmental Concern*, write the UNC Sea Grant Program Office.

Second-class postage paid at Raleigh,
N.C. 27611