Too Wet or Too Dry?

Water – the key element of the ACE Basin can change from year to year in both quantity and quality.

Property managers have to roll with the punches, changing strategies with the changing weather.

Last fall, after four years of hard drought, rain returned to the Lowcountry in abundance. As spring arrived, brackish marshes, burned brown by the near sea strength salinity of the past four years, blossomed green with the influx of freshwater as widgeon grass, dwarf spike rush, salt marsh bulrush, sprangletop and other waterfowl foods responded to the favorable growing conditions.

Swamps and other wetland basins were fully flooded for the first time in years making nesting conditions near ideal for resident wood ducks.

However, as the rains of early spring stretched into the heart of the growing season, wetland habitat managers had to deal with too much water. Brackish marsh managers, after coping with extremely salty water last year, were faced with pure fresh water.

Everything was just the opposite of last year.

Managers who rely on flooded agricultural crops for waterfowl food had difficulty getting into the fields to plant crops. Some managers had their crops of corn drowned, but these were replaced by an abundance of natural foods such as barnyard grass, Walter’s millet, smartweeds, and panic grasses.

Of course, the wet conditions favored the ever present sesbania, which can shade out preferred plants and reduce open water for arriving ducks. Weather permitting, most managers will deal with it just prior to duck season by mowing or burning.

While traditionally brackish marshes are still quite fresh, most marshes surveyed have good to excellent crops of waterfowl foods. Salt deposits in the soil from the drought were enough to help brackish marsh plants flourish. Some managers lowered water levels to encourage dwarf spike rush, which grows well in shallow, low salinity environments.

Overall habitat is much improved over recent years for migrating and wintering waterfowl. The vagaries of migration will tell how many birds show up in South Carolina for the winter.
Nemours Wildlife Foundation President Named to Chair DNR Board

Mike McShane, a member of the ACE Basin Task Force and president and CEO of Nemours Wildlife Foundation was recently named Chairman of the Natural Resources Board which oversees the SC Department of Natural Resources.

McShane, of John’s Island, previously served on Gov. Mark Sanford’s Quality of Life Task Force and is president of the Board of Trustees of the Lowcountry Open Land Trust.

McShane takes over in the midst of a severe state budget crunch that has forced the DNR to cut programs and reduce staff. However, he sees this as an opportunity to revamp the agency, set new priorities, and take advantage of what he calls “the highly talented DNR staff.”

McShane believes that economics are cyclical and that the state will eventually solve its budget woes. But, he adds, “accountability is here to stay.

“We will come out of this as a finer organization,” he said.

He views managing the intense development pressures in the state, especially along the coast, as an issue in which the DNR should play a lead role.

“The concepts developed in the ACE Basin Project of private land owners and public agencies working together toward a common goal, an approach that has made the ACE Basin Project internationally recognized, can work in many regions of this state or country to protect vital wildlife habitat for future generations,” he said.

He gives a lot of credit to the work of the previous Natural Resources Board, especially the efforts of former chairman Dr. Joab Lesene, and feels the new board has good representation from across the state and will work closely with DNR staff.

Asked how he will approach his new position as board chairman, he said, “The only thing I can promise that will be constant is change. DNR employees need to make themselves invaluable to the agency. A mistake someone can make is to say to me, ‘That’s the way we always did it.’

“DNR should play a leadership role in state government, working with the General Assembly and with other state agencies such as the Department of Health and Environmental Control to develop comprehensive plans to protect the environment,” McShane said.

“This wonderful state has fabulous natural resources that appeal to many individuals in many ways,” he said. “Those resources provide the quality of life we all seek here in South Carolina and we will continue to work with a great DNR staff, state and federal agencies, other private organizations, and landowners to keep those wonderful natural resources intact.”

 Educational Cruise Program Re-vamped with New 45-foot Vessel

A new 45-foot catamaran capable of carrying 45 passengers, has begun operation out of Bennett’s Point, re-establishing the DNR educational cruise program, long popular with science teachers and students.

The catamaran, complete with restroom, is powered by twin 225-horsepower outboard motors with a cruising speed of 22 miles per hour. Coast Guard certified, it requires only 24 inches of water to run the motors and can float in just 10 inches of water.

The DNR designed this boat specifically with education programs in mind. An A-frame with a winch can pull a small trawl net enabling education biologists to give students the opportunity to see up-close the variety of marine life along the South Carolina coast.

The boat also has a davit for lowering and raising sampling gear to take water samples and to pull plank-
The 45-foot catamaran, “Discovery,” has revamped the DNR’s educational cruise program in the ACE Basin National Estuarine Research Reserve, headquartered at Bennett’s Pt.
	on nets. The boat’s shallow draft allows it to pull up onto the beach for loading and offloading when no dock is available.

Although the cruise program was discontinued in 2001 due to a loss in funding and staff, its popularity has not decreased. Frequent cruise requests from teachers and students across the state prompted DNR staff to reestablish the program.

Funding for the new vessel was provided by the Harry Hampton Memorial Wildlife Fund, DNR, S.C. Saltwater Recreational Fishing License Program, Charleston County Legislative Delegation, Berkeley County Legislative Delegation, National Oceanic and Atmospheric Administration, and Clean Vessel Act.

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Marine biologist Charlie Zemp, one of the boat’s two captains, demonstrates a water sampling device used by students on educational cruises.

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ACE Basin NERR Receives Funding

Senator Fritz Hollings has announced that the National Oceanic and Atmospheric Administration (NOAA) has awarded $588,000 in grant funding for research and management of the ACE Basin National Estuarine Research Reserve, located in Colleton, Charleston, Beaufort and Hampton counties. As the ranking member of the Appropriations subcommittee that funds NOAA, Hollings has worked for the past decade to secure substantial funding to protect the ACE Basin region.

“These natural labs in the ACE Basin support the management-oriented research that coastal resource officials need to tackle difficult coastal problems,” Hollings said. “The ACE Basin provides South Carolinians with an unparalleled opportunity to understand and protect our estuaries, which provide vast aesthetic, recreational and economic opportunities, as well as a variety of coastal benefits like flood control, pollution reduction, and wildlife conservation. I am pleased to see NOAA recognize and support the outstanding work done by our state managers and scientists at these reserves.”

The grant will support operations, program management and oversight, education, monitoring projects, and resource management and stewardship in the estuarine research reserve. The research will enhance and protect the many uses of the reserve by monitoring water quality, studying the abundant plant and animal species, and evaluate the overall health of the ACE Basin ecosystem.

At the recent 100-year anniversary of the U. S. Fish and Wildlife Service and the 15th anniversary of the ACE Basin Project held at the Grove Plantation, invited guests and speakers included Sen. Fritz Hollings and Gov. Mark Sanford.
Workshop Addresses Use of Herbicides for Land Managers

The use of modern herbicides to control pest plants and improve wildlife habitat was one of the topics of a recent workshop attended by 50 landowners and managers at Nemours Plantation.

Dr. Larry Nelson of Clemson University Forestry Department said that while herbicide treatments may cost more than burning or mechanical treatments, they provide selective and long-term control.

The variety of herbicides now available allows managers to target particular pest plants and encourage more desirable species.

Dr. Steve Jack of the Jones Ecological Research Center in Georgia then discussed proper burning in land and wildlife management, recommending landowners develop written burn prescriptions each year.

Prescriptions should identify the objective of the burn, man-power and equipment required, condition of the site to be burned, weather, technique, permits and smoke management and follow up evaluation.

Jack stressed the importance of smoke management and suggested the formation of a state-wide prescribed burn council, which in other states such as Florida has been effective in dealing with controversies associated with burning.

Both speakers advised the setting of goals and objectives and choosing the right combination of techniques to achieve each objective. They urged managers to keep detailed records to help understand over time why some practices were more successful than others.

Nemours Plantation biologist Eddie Mills examines an area where herbicides have been used to control small sweetgums and other pest plants in a stand of planted pine.

Artist Adele Earnshaw demonstrates her watercolor techniques to high school students who had won awards in this year's South Carolina Junior Duck Stamp Contest. Looking on is artist Joe Garcia.

Earnshaw, Garcia, and other professional artists conduct a one day workshop each year at Donnelley WMA for these aspiring young artists from across South Carolina.
Dove Banding Program Underway

The S.C. Department of Natural Resources has joined a nation-wide, three-year banding study of mourning doves to gather information on dove life history. Hunters can help by reporting any banded doves harvested.

Twenty-six states across the nation will be participating in this landmark study, and more than 85,000 doves will be banded during the next three years.

DNR biologists have established a banding station at Donnelley Wildlife Management Area.

The study will help determine mourning dove harvest rates, estimate annual survival, and provide information on the geographical distribution of the harvest.

By reporting all banded doves harvested, hunters add valuable information that will assist in the management of this important migratory bird resource.

A hunter harvesting a banded mourning dove should call 1-800-327-2263 to report the band number. Operators will be on duty 24 hours a day, Monday through Friday, during the hunting season.

Outside of the hunting season, hours of operation are 7 a.m. to 4:30 p.m. Banded birds may also be reported online at www.pwrc.usgs.gov by selecting “Bird Banding Lab.”

Wire traps, baited with sunflower seeds are used to trap doves at Donnelley WMA. More than 1300 doves have been banded across the state this year and hunters are urged to report any banded birds they harvest.

Hunters can keep the bands and will be provided a certificate identifying the age and sex of the bird, as well as the date and location the bird was banded.

Mourning doves are one of the most widely distributed and abundant birds in North America. In South Carolina, doves rank second in popularity only to deer as a game species.

During the 2002-03 hunting season, about 48,000...
dove hunters in South Carolina harvested around one million doves.

Survival rates, harvest rates, and population trends are all used by wildlife biologists to help guide harvest management decisions. Banding is one of the most important tools used to obtain this information.

Despite the importance of mourning doves as a migratory game bird, no large-scale banding of mourning doves has been conducted in the past 20 years.

Recent unusual visitors to the ACE Basin include white pelicans, normally a western species that have spent the last two years in the area but not nested. A leatherback turtle this summer nested on Botany Island producing about 50 eggs with yolk, only the third nesting record for this species in the state. Black-bellied tree ducks appeared on several properties in the ACE Basin this year, including this pair at Donnelley WMA.

The 2003-04 mourning dove season will run as follows: Sept. 1-Oct. 4, Nov. 22-29 and Dec. 19-Jan. 15. Statewide legal shooting hours for the 2003-04 dove season will allow afternoon hunting only (from noon to sunset) for the first six days (Sept. 1-6) of the first season segment and then all-day hunting (from one-half hour before sunrise to sunset) for the rest of the season. The daily bag limit is 12 birds per hunter.
Public Lands in the ACE Basin

**Bear Island WMA**
Hunting - Archery and gun hunts for deer; waterfowl hunting by drawing; dove and small game hunts also scheduled.*
Fishing - Fish and blue crabs can be harvested from impoundments from April 1 to Sept. 30.
Camping - Primitive facilities available for deer hunters and conservation groups by appointment.
General Public Use - Designated areas open for bird watching, photography and wildlife observation from Jan. 21 through Oct. 31. Mon.-Sat.

**Donnelley WMA**
Hunting - Archery and gun hunts (drawing only) for deer; waterfowl and turkey hunts by drawing; dove and small game hunts scheduled.*
General Public Use - Designated trails; Mon.-Sat. 8 a.m. - 5:00 p.m., closed on Sunday and during special hunts.
For more information on Bear Island WMA and Donnelley WMA call (843) 844-8957.

**ACE Basin National Estuarine Research Reserve**
Research - Support and facilities are provided for qualified scientists to study estuaries and coastal ecosystems.
Education - Education cruises, marsh classroom adventures, workshops and training sessions provided to organized groups.
General Public Use - Accessible by boat; primitive camping in specified areas; some restrictions.
For more Information call (843) 762-5400.

**ACE Basin National Wildlife Refuge**
Hunting - Archery, primitive weapons hunts for deer. Waterfowl hunts in designated areas.
General Public Use - Open for public use except during scheduled hunts.
For more information call (843) 889-3084.
Office hours - 7:30 a.m. - 4 p.m.
(* See SCDNR current Hunting and Fishing Rules and Regulations)

Loggerhead Turtle Nesting Successful on Botany Island

Loggerhead turtle nesting this year on Botany Island in the ACE Basin has reached 191, the highest rate in three years but still well below the 262 nests recorded in 1999, when the DNR began managing turtle nesting on Botany Island and Botany Bay Plantation.

Libba Johnson, with funding from a member of the Botany lodge, patrols the beach five days a week and this summer had assistance from a high school student, Rod Brown who had funding from the Ocella Property Owners Association. Tommy Bentz, the island caretaker, helped with raccoon control.

Rod, who returned to school in mid-August, would ride his bike in the morning to meet Libba for work. They usually started at 6:30 am, though the tides require them to adjust their times.

Working by themselves (some beaches have dozens of turtle volunteers) they located turtle nests and screened them from raccoon predation. After hatching, the nests were inventoried to determine the hatching success.

Libba and Meg Hoyle of DNR, who oversees the project, will complete the nest inventories by October.

In another development, Libba Johnson discovered only the third leatherback turtle nest ever recorded in South Carolina. Several non-nesting leatherback crawls had occurred on Hunting Island State Park earlier in the summer.

The nest on Botany Island contained about 50 eggs with yolk and these were moved above the high tide line and will be monitored closely as they approach hatching time in late August.

Later in the summer another leatherback nested on Folly Beach. ✉️
### Conservation Sites

**Public Sites**

<table>
<thead>
<tr>
<th>Site Name</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bear Island Wildlife Management Area (est. 1953)</td>
<td>12,055</td>
</tr>
<tr>
<td>Donnelley Wildlife Management Area (1992)</td>
<td>8,048</td>
</tr>
<tr>
<td>ACE Basin National Wildlife Refuge</td>
<td>11,762</td>
</tr>
<tr>
<td>Donnetley Wildlife Management Area (1992)</td>
<td></td>
</tr>
<tr>
<td>ACE Basin National Estuarine Research Reserve</td>
<td>16,983</td>
</tr>
<tr>
<td>Edisto Beach State Park (est. 1936)</td>
<td>1,255</td>
</tr>
<tr>
<td>Hunting Island State Park (est. 1938)</td>
<td>5,000</td>
</tr>
<tr>
<td>Sub-total</td>
<td>55,103</td>
</tr>
</tbody>
</table>

**Private Sites**

| Conservation Easements (64)                  | 64,214 |
| Deed Restrictions                             | 33     |
| Hannahan Tract (1993)                         |       |
| Organization Ownership                        | 19,059 |
| Management Agreements                         | 13,076 |
| MeadWestvaco (1991)                           |       |
| Other                                         | 5,892  |
| Botany Bay Plantation, Slann Island (1996)    |       |
| Sub-total                                     | 102,886 |
| TOTAL                                         | 157,989 |

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S.C. Department of Natural Resources  
John E. Frampton, Executive Director

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Dean Harrigal, Project Coordinator, Wildlife Management  
David Allen - Freshwater Fisheries Section  
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