

# TVA River Neighbors



Navigation • Flood Control • Power Supply • Land Use • Water Supply • Water Quality • Recreation

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## Reservoir Operations Study Under Way

*It's a new ballgame for David Nye. The Project Manager of TVA's Reservoir Operations Study has spent most of his career in nuclear and fossil operations. Now he finds himself at the helm of a two-year project that is examining the way TVA manages the Tennessee River. As River Neighbors went to press, community workshops were still being held throughout the Valley as one way to gather citizen opinions and values about what ought to be considered in the course of the study. We thought we'd take advantage of the opportunity to get Nye's take on the potential impact of the study and his role in the effort.*

### As Project Manager, you are the most visible "face" of the Reservoir Operations Study. What's that like?

When I first learned that I would be heading this effort, my initial reaction was an overwhelming feeling of what an awesome responsibility it is—along with a sincere hope that I could meet the expectations that the TVA Board of Directors and stakeholders have for the study process. In some ways, this is very different from anything I've done before in my career. I'm accustomed to driving budgets and schedules. So I've been pleased to get the opportunity to work very closely with members of the public—folks who care about the river, TVA, and the future of this region. It's a learning experience for me—one that I'm really enjoying.

### What's your "vision" for the Reservoir Operations Study?

Public values have changed in the 69 years since TVA was established, but people will continue to depend on the TVA system to support sustainable development in the region. The integrated system of dams,



Alabama State Rep. Frank McDaniel (left) talks with TVA's David Nye and Ray Knotts at the Reservoir Operations Study community workshop in Guntersville March 23.

generating plants, and transmission lines represents an amazing example of human ingenuity. Yet with all that infrastructure, TVA's greatest operating constraint is its dependence on nature to provide enough rain—at the right time and in the right places. Since we obviously can't control the weather, TVA engineers and scientists have developed precise and complex operating models that squeeze the most efficient use out of every drop of water as it flows downstream. I see the Reservoir Operations

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## INSIDE: Annual Reservoir Monitoring Update



## What Happens Next?

In the weeks ahead, TVA will summarize public input regarding the values, issues, and objectives that should be considered in developing and evaluating alternatives for operating the river system. Then TVA will prepare a Draft Environmental Impact Statement describing the alternatives and the trade-offs they represent. Following the release of this document, TVA will set aside a period of at least 45 days in which more workshops will be held to gather public comments on the alternatives.

Visit TVA's Web site at [www.tva.com](http://www.tva.com) to learn more about the study or, if you have questions, send an e-mail to [rostudy@tva.com](mailto:rostudy@tva.com), call 888-882-7675, or write to David Nye, ROS Project Manager, Tennessee Valley Authority, WT 11A, 400 West Summit Hill Drive, Knoxville, Tennessee 37902.



*Computers allowed workshop participants to express their opinions about managing the Tennessee River and to read and react to the opinions of others as information was entered and displayed on a big screen for all participants to view. This technology also will help TVA assimilate public input more quickly.*

Study as a milestone in TVA history: we're taking a hard look at how we spend the water that people in the region depend on. This study provides an open and coordinated framework for TVA to consider new and different ways to best serve the public interest.

### **At this stage of the process, are you satisfied with where things stand? Do you feel you'll be able to complete the study within the two-year time frame?**

We have embarked upon an extremely aggressive schedule. Right now, we're pretty much on target with the goals we've set for ourselves to make that two-year objective. The hard rowing is still to come, but I'm optimistic. I've asked about a dozen folks from throughout the Valley to help us stay on track. These citizens are working with us to validate our process decisions and to see that we don't get bogged down in analysis that doesn't respond to what the public would like to see emerge from the study.

### **What's the biggest challenge?**

Factoring in all the complexities involved in managing the system. It's an immense task that requires really sound processes and exceptional talent on the team, and I

think we have that. To meet the challenge, we are building computer modeling tools that can answer a lot of the "what if" questions about alternative uses of the water. They can provide us with some new insights regarding the consequences of changing the current balance of benefits provided by the system.

### **Why did you decide to be personally involved in the community workshops?**

I wouldn't even have considered not attending the workshops. In fact, I wish I could be at all of them. I enjoy getting out there and hearing for myself what the people in the Valley are thinking on this. The technology we are using at the workshops allows me to go back and read every single comment and see how people in different parts of the region feel about issues. One of my goals in this project is to be an honest broker for the public in this process. You can't do that sitting behind a desk somewhere.

### **Based on what you're hearing so far, how would you say the meetings are going?**

People are telling me that this study has been a long time coming. Sentiment about the issues has been building up for some time, and folks are glad to have a process



that is open and fair. And I can't tell you how many people have told me that they really like the technology that we are using at the workshops because it's an efficient way to give everybody a chance to express their views. Others have said how glad they are to have the opportunity to be heard without having to speak before a group.

### How will the public input from the workshops be used?

All that information will be analyzed to use in defining the scope of the study, and a summary will be included in the scoping report. But remember, the community workshops are just one way we've collected input on public values for the study. TVA's Regional Resource Stewardship Council worked on these issues for two years and built a baseline of opinions and insight.

And TVA gets letters and e-mails every day that pertain to how TVA balances the competing demands for water. While the issues are not new, the study has brought new entrants into the discussion. When building objectives and alternatives, we will consider input from many sources.

### When this whole thing is said and done, what will give you the greatest sense of achievement?

I'll be happy if the people who participated in the process are satisfied with the range of alternatives we examine in the study. I'd also like to know that the tools we've developed adequately describe the consequences of those alternatives. Our obligation is to give the Board high-quality information for decision-making; the team and I intend to make sure they have that.



## In Answer to Your Question...

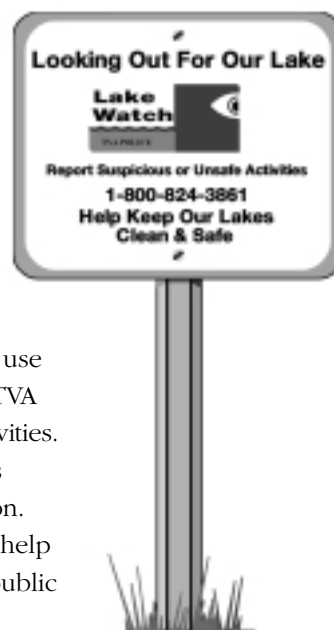
### Will heightened security as a result of the September 11 terrorist attack affect recreation on TVA reservoirs and public lands this summer?

*With all the recent attention to the threat of terrorism, a lot of people have called TVA with questions about whether they can still fish near TVA dams, hike on TVA land, or otherwise enjoy the recreation opportunities associated with TVA facilities. For an answer, we went to Gary Mauldin, Operations Manager in River System Operations and Environment.*

"We've taken steps to improve security at all our dams and power plants, including increased surveillance and additional gates, fencing, lighting. But the changes should not have a noticeable effect on recreation use. All of our campgrounds, recreation areas, and visitor centers are open for business as usual this summer and—barring a new security threat—anglers can continue to enjoy fishing below TVA dams either by boat or from the shoreline.

Just as we've all been asked to report potential terrorist activity in our neighborhoods and communities, people who use TVA reservoirs or fish below our dams are asked to call the TVA Police at 800-824-3861 if they see any suspicious or unsafe activities. We've already posted signs at several launching areas with this phone number, and signs will be going up at other areas soon.

By being our 'eyes and ears,' reservoir users can not only help us protect these vital assets, they can also help us maintain public access for recreation."



### TVA Campgrounds Open for 2002 Season

TVA-operated campgrounds on reservoirs throughout the Tennessee Valley are open for the 2002 recreation season.

Camping fees are \$12 per day for sites without water and electric hookups and \$16 per day for sites with hookups—up \$1 over last year. "The increase is necessary to cover the costs of TVA's current level of service," said TVA Resource Stewardship Vice President Bridgette Ellis. TVA-managed day-use areas and boat launch ramps charge no fees.

A 50-percent discount on camping fees is available to holders of Golden Age and Golden Access Passports, which can be obtained from TVA's 12 watershed offices and most other federally operated recreation areas. Information on picnic pavilions and procedures for reservations are available by calling toll free 866-494-7186.

For answers to questions about recreation opportunities on TVA reservoirs, contact your local TVA watershed office, visit [www.tva.com/environment/water](http://www.tva.com/environment/water), or write to TVA Recreation Areas, P.O. Box 1589, Norris, TN 37828.



## Wet Weather Helps To Fill Tributary Reservoirs

Rainfall returned to near-normal in the watershed above Chattanooga during the first three months of 2002—but, unfortunately, it wasn't distributed very evenly.

At press time, Norris, Cherokee, South Holston, Douglas, and Fontana were right on track to reach summer pool levels. But water levels were lower than in previous years for Watauga, Hiwassee, Chatuge, Nottely, and Blue Ridge Reservoirs because of below-normal rainfall in those locations.

The progress toward summer pool levels on TVA reservoirs is partly the result of two major flood events—one in late January and another in mid-March. By storing the floodwaters in tributary reservoirs, TVA was able to avoid an estimated \$67 million in damages at Chattanooga alone.



## TVA Reservoir Levels<sup>1</sup>

	Observed	Targeted Summer	
	April 15 Levels	Pool Levels	
<b>Tributary Reservoirs</b>		minimum	maximum
Blue Ridge	1678.8	1682	1687
Boone	1375.1	1382	1382
Chatuge	1920.5	1923	1926
Cherokee	1059.8	1060	1071
Douglas	981.0	990	994
Fontana	1682.9	1693	1703
Hiwassee	1504.2	1515	1521
Normandy	873.7	873	875
Norris	1016.0	1010	1020
Nottely	1764.3	1770	1777
South Holston	1723.6	1721	1729
Tims Ford	886.3	883	888
Watauga	1948.6	1949	1959
<b>Main-River Reservoirs</b>			
Chickamauga	682.1	681.5	682.5
Fort Loudoun/Tellico	811.4	812	813
Guntersville	594.8	594	595
Kentucky	357.8	359	359
Nickajack	634.0	632.5	634
Pickwick	413.2	413	414
Watts Bar	739.0	740	741
Wheeler	556.0	555	556
Wilson	507.0	506.2	507.7

<sup>1</sup> Elevations in feet above mean sea level.

## Reservoir Operations Update

**Whitewater Recreation Releases**—Releases for whitewater recreation are planned on specified dates at Apalachia, Wilbur, and Tims Ford Dams and for the Bear Creek Floatway through Labor Day; at Ocoee No. 3 Dam through September; and at Ocoee No. 2 Dam through November 3. For the latest information on recreational releases, visit [www.tva.com](http://www.tva.com) or call TVA's toll-free information line: 632-2264 in Knoxville, 751-2264 in Chattanooga, 386-2264 in Muscle Shoals, and 800-238-2264 from all other locations. If you are hearing impaired, call 800-438-2264.

**Mosquito Fluctuations**—TVA will begin raising and lowering water levels on four main-river reservoirs on May 20 to strand mosquito eggs and larvae on the shoreline. Water levels on Guntersville and Pickwick will be lowered during the week and raised on weekends. Levels on Chickamauga and Wheeler will be raised during the week and lowered on weekends.

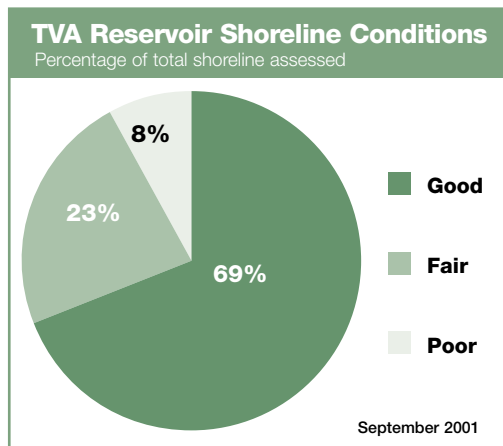
**Special Events**—TVA will provide special flows and/or reservoir elevations to benefit a variety of events in the coming months. These include four regattas on Melton Hill in April and May, the Riverbend Festival in Chattanooga from June 1-7, the Elk Raft Race in Fayetteville on July 6, and the Fun Fest Crazy Boat Race in Kingsport on July 13.

**Fort Patrick Henry Drawdown**—Starting November 4, TVA will begin a drawdown of Fort Patrick Henry Reservoir until the water level reaches elevation 1226 (about 35 feet below normal) on December 9. The drawdown is necessary to safely repair structural deficiencies on the spillway gates. The wire ropes, which are used to lift the gates, will be replaced on all gates during this time. It is impossible to complete this work with any water on the spillway gates. The work is scheduled for completion by late January—in time for the reservoir to fill to normal levels by February 2003.

## Results Will Guide Improvement Efforts

# TVA Completes Shoreline Assessment

**W**ith 11,000 miles of shoreline in seven states, it would have been easier to do a quick check by helicopter. But the goal was to collect detailed information on the condition of every segment of shoreline. So TVA opted for the up-close-and-personal approach—floating the entire reservoir system by boat.



Jack Muncy, a TVA forester, initiated the project in 1994. By 1997, he and his team had assessed 6,000 miles of reservoir shoreline. Last year, TVA Watershed Teams tackled the remaining 5,000 miles, thus compiling the first complete picture of shoreline conditions. “On most reservoirs,” says Muncy, “we now know the dominant type of vegetation [such as trees, shrubs, or grass] and the dominant land use [such as residential, industrial, or agricultural], as well as impacts to the vegetation [such as livestock grazing, clearing, or mowing] and the general soil erosion rate.”

The good news is that only eight percent of the shoreline was found to be in poor condition. But that’s also the bad news, according to Muncy: “Eight percent is a lot of critically eroding shoreline when you’re talking about a total of 11,000 shoreline miles. If you add up all the shoreline segments experiencing rapid soil erosion—even loss of land—the total is about 880 miles. We’re losing trees and other important vegetation that provide wildlife and fisheries habitat, filter out

pollutants, and moderate water temperatures and dissolved oxygen levels. Erosion also damages archaeological sites and causes excessive sedimentation, which degrades water quality.”

Land use has a lot to do with the condition of a reservoir’s shoreline. For example, Apalachia Reservoir, which had one of the highest percentages of good shoreline, is in a mountainous setting with limited agricultural or residential development. On the other end of the spectrum is Kentucky Reservoir, where a combination of highly erodible soils, more intensive land use, and considerable wave action from wind and watercraft contributed to a high percentage of poor shoreline.

“This is a dynamic system,” adds Muncy. “With continuing land use, increased development, and more watercraft on Valley reservoirs every year, there’s always the possibility that shoreline segments currently in fair condition could move into the poor category if no corrective action is taken.”

Taking corrective action, in fact, is the real point of the shoreline assessment. TVA will use the data in figuring out how best to target resources to minimize erosion and in managing the shoreline resource for the greatest public benefit.

TVA Watershed Teams are already working with local, state, and federal agencies; lake user associations; and other stakeholders to address this challenge. Since 1992, TVA and its partners have stabilized 173 critically eroding shoreline sites covering almost 35 miles. During fiscal year 2002, another 50 critically eroding sites along more than seven miles of shoreline will be restored.

*For more information on the condition of your reservoir’s shoreline, or to learn more about shoreline restoration efforts, contact your local TVA watershed office.*

### Protecting Your Shoreline

Here are some practical steps property owners can take to help minimize shoreline erosion:

- Leave forested waterfront property in a natural state to promote growth of native trees and shrubs, which have deep root systems to hold and bind the soil in place.
- If your waterfront property isn’t forested, preserve as much of the natural vegetation as possible; plant native trees, shrubs, wildflowers, and grasses.
- Before removing trees or cutting any vegetation from TVA public land, check with your local TVA watershed office.



*Native trees and shrubs were planted recently to help stabilize eroding banks along Doakes Creek on Norris Reservoir.*

# Go “Birding”

All it takes is a good pair of binoculars and maybe a little patience. Birdwatching (or, as it's become known in recent years, “birding”) has become one of the most popular outdoor recreation activities in the nation. It's a challenging and satisfying hobby that can be enjoyed by people of all ages and physical conditions. It doesn't cost a thing and you can do it anywhere—from your backyard to your vacation destination. But one of the best places to do it is right here in the Valley.

Some of the premier birding sites in the entire inland Southeast are along TVA reservoirs. Deep water and shallow water areas, wetlands, upland and bottomland forests, fields, and bluffs—all these features make TVA reservoirs and adjoining lands prime locations for birds. In many areas, TVA and partner agencies, such as the U.S. Fish and Wildlife Service and state wildlife agencies, have improved conditions for birds by developing wildlife refuges and wildlife management areas. TVA also has installed bluebird boxes; planted native grasses for songbirds, gamebirds, and other wildlife; built nesting platforms for osprey; and taken other steps to improve habitat for birds and other wildlife on its properties.

For those who may be just trying out a new hobby, there's no better time than spring to begin birding. Migrating species, which have wintered as far away as South America, return to the Tennessee Valley to nest or to rest on their journey to nesting areas further north. Birds which have been silent much of the winter burst into song. And local residents, lingering winter visitors, and migrants are resplendent in their fresh and colorful breeding plumage.

**Here are some of the best sites for birdwatching on TVA reservoirs, along with a list of the species you're likely to see this time of year.**

**Rankin Bottoms, Douglas Reservoir**—Double-crested cormorants, herons, Canada geese, wood ducks, ospreys, prothonotary warblers, shorebirds, terns, and bald eagles. You'll want to return in late summer/early fall when daily counts of hundreds of migrating shorebirds, terns, herons, and egrets are common.

**Songbird Trail, Norris Dam Reservation**—Great blue herons, Canada geese, wood ducks, and belted kingfishers along the river and a variety of woodpeckers, vireos, thrushes, warblers, tanagers, orioles and sparrows in the riverbank forest and adjacent fields.

**Kingston Fossil Plant, Watts Bar Reservoir**—Migrating shorebirds, several species of hawks, herons, and an occasional peregrine falcon; seldom-seen grasshopper sparrows; and brown-headed nuthatches (residents of the loblolly pine plantations).

**Chota Waterfowl Refuge, Tellico Reservoir**—Grebes, loons, herons, bald eagles, and a large variety of songbirds, including both resident species and neotropical migrants. This area also supports an average of 3,000 ducks during the winter months.

**Hiwassee Refuge, Chickamauga Reservoir**—Shorebirds, terns, double-crested cormorants, herons, ospreys, bald eagles, and a large variety of songbirds. Be sure to return next winter to view the sandhill cranes, which frequently number in the thousands.

**Guntersville State Park, Guntersville Reservoir**—A wide variety of warblers, vireos,

## TVA Watershed Teams

Boone, Bristol Projects, Fort Patrick Henry, South Holston, Watauga, Wilbur:  
**423-239-2000**

Cherokee, Douglas, Nolichucky:  
**865-632-3791**

Norris:  
**865-632-1539**

Melton Hill, Watts Bar, Great Falls:  
**865-988-2440**

Fontana, Fort Loudoun, Tellico:  
**865-988-2420**

Apalachia, Blue Ridge, Chatuge, Hiwassee, Nottely, Ocoee 1, 2, 3:  
**828-837-7395**

Chickamauga, Nickajack:  
**423-697-6006**

Guntersville:  
**256-571-4280**

Wheeler:  
**256-386-2560**

Pickwick, Wilson, Bear Creek Projects:  
**256-386-2228**

Kentucky, Beech River Project:  
**731-641-2000**

Tims Ford, Normandy:  
**256-386-3442**



*In recent years the Little Tennessee Watershed Team has developed a tree swallow/eastern bluebird nest box "park" on several Fort Loudoun and Tellico reservation areas adjacent to the reservoir shorelines. Tree swallows are using these nest boxes in large numbers.*



and thrushes; scarlet tanagers; and brown-headed nuthatches. The park is best known for large numbers of wintering bald eagles.

**Muscle Shoals Reservation, Wilson Reservoir**—All 37 species of eastern warblers (including the uncommon Swainson's warbler in the Southport area), thrushes, bluebirds, Eastern kingbirds, American kestrels, barred owls, and woodpeckers along several miles of trails. Great blue and black-crowned night-herons, terns, Baltimore orioles, hummingbirds, and occasional willets and spotted sandpipers along the river below Wilson Dam.

**Duck River Unit, Tennessee National Wildlife Refuge, Kentucky Reservoir**—Nesting herons, bald eagles, ospreys, tree swallows and prothonotary warblers. The Duck River, Busseltown, and Big Sandy Units of the Refuge also are home to large numbers of wintering ducks and geese.

*A wealth of information about birding opportunities in the Tennessee Valley, including driving directions to birding sites, is available on the Web. A good place to begin is by searching for the Web site of your state's ornithological society. For more information about birding and other outdoor activities at TVA public recreation areas, including maps, call TVA at 865-632-4220 to purchase a \$10 copy of "Tennessee River Country: A Glovebox Guide to TVA Places for Family Fun."*

## THE INVASION CONTINUES:

# Zebra Mussels Multiply Below Watts Bar Dam



**T**VA monitoring in 2001 showed an 833-percent increase in the number of zebra mussels in the upper part of Chickamauga Reservoir, just below Watts Bar Dam. Zebra mussels have been found at this location since TVA began counting in 1995, but population densities have increased substantially in recent years. Samples collected last fall showed over 5,000 zebra mussels per square meter—up from 600 zebra mussels per square meter in 2000.

According to TVA's Dennis Baxter, the increase is the result of a newly-formed colony just upstream in Watts Bar Reservoir. "This is the first time we've found a massive colony in Watts Bar comparable to the colonies found downstream in Chickamauga and Nickajack Reservoirs." Zebra mussel densities also were

higher than in previous years in other reservoirs on the main Tennessee River.

Zebra mussel populations are now reaching the point where they could cause problems for water users in the Tennessee Valley, says Baxter. "Zebra mussels can clog intake pipes, causing trouble for anyone who uses raw water—from people who pump reservoir water to irrigate lawns or wash down docks and decks to water treatment and power plants. They can build up on boat hulls and internal engine parts and attach to docks and locks, affecting water transportation. They can wash up on beaches, causing odor and litter problems. And, because they consume large portions of the microscopic plants and animals which form the base of the food chain, they can even alter aquatic ecosystems."

*Boaters can help stop the spread of zebra mussels by thoroughly cleaning and drying their boats, trailers, and other equipment after each use. To learn more, call TVA's zebra mussel hotline at 800-538-2526.*

Now Available:

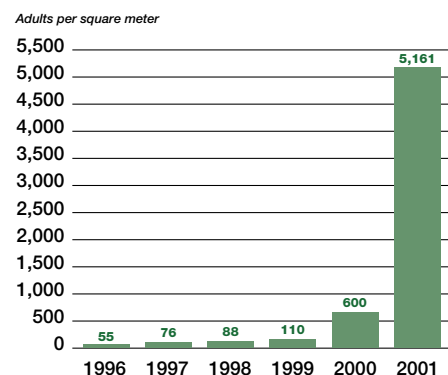
## TVA's 2001 Environmental Report

Copies of TVA's third annual environmental report are now available. The report reviews TVA's environmental performance during 2001.

Topics of special interest to those who care about river stewardship include TVA's continuing efforts to build watershed-protection partnerships, manage litter and natural debris in TVA reservoirs, maintain the shoreline along rivers, and pursue the successful Clean Marina Initiative.

To view the report, visit TVA's Web site at [www.tva.com](http://www.tva.com). For a printed copy, call 865-632-4677 or send an e-mail to [tvainfo@tva.com](mailto:tvainfo@tva.com).

### Zebra Mussels Below Watts Bar Dam



# JOIN THE FUN: Chattanooga to Host National Clean Boating Celebration

TVA River Neighbors is published three times a year for people who live near and use the Tennessee River, its tributaries, and reservoirs.

Send comments and suggestions to Editor, TVA River Neighbors, 400 West Summit Hill Drive, WT 10D, Knoxville, TN 37902.

TVA River Neighbors is available on the TVA Web site at [www.tva.gov/river/neighbors/](http://www.tva.gov/river/neighbors/). You can help us save resources by reading it online. Just send an e-mail message to [riveneighbors@tva.com](mailto:riveneighbors@tva.com), and we'll let you know when a new issue is posted instead of mailing you a printed copy.

For alternate formats of this document, call 865-632-6824 and allow five working days for processing.

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**B**oating enthusiasts from around the Southeast and across the nation will gather in downtown Chattanooga on Saturday, June 22, for a day of “good, clean fun” at the 2002 National Clean Boating Campaign (NCBC) celebration. The free event will be held aboard TVA’s Red Wagner tug and barge facilities, which will be moored at the public dock at historic Ross’s Landing.

Chattanooga was chosen to host this fifth annual celebration in recognition of the Tennessee Valley’s ranking as one of the “best regional NCBC programs in the country,” says TVA’s Linda Harris, coordinator of the 2002 event. “Anyone who enjoys recreational boating is encouraged to participate. There will be educational hands-on clean boating activities and

environmentally sound product samples, as well as exhibitors and vendors from across the country, field trips, music, and much more.”

The campaign, which was created by the Marine Environmental Education Foundation, promotes good stewardship of water resources by boaters, marina operators, boat dealers and the boating industry. TVA is an active partner in the NCBC, along with federal agencies, conservation organizations, and the boating industry.



*To learn more about clean marina and clean boating activities at a reservoir near you, contact your local TVA watershed office. For more information on the National Clean Boating Campaign, including plans for the June 22 celebration in Chattanooga, visit [www.cleanboating.com](http://www.cleanboating.com).*