



## CASE STUDY

# The Seminole Tribe of Florida Uses Water Quality Standards to Solve a Nutrient Problem\*

When the Seminole Tribe of Florida began to administer its water quality standards program in 1994, it targeted a severe nutrient problem on the Big Cypress reservation. Increased nutrients in the water – in this case, phosphorus – were disrupting natural plant and animal communities. The problem came from large-scale agricultural operations around Lake Okeechobee and the Everglades as well as activities on the reservation. Five years after starting its water quality standards program, the Tribe measured decreases in nutrients entering the reservation's waters. In addition, the Tribe became an equal partner with all state, regional, and federal agencies involved with the area's water resource planning and permitting activities. In effect, the Tribe's water quality standards have played an important role in protecting the quality of the reservation waters.

## Tribal Background and Operations

The Seminole Tribe of Florida has five reservations that differ greatly in topography, degree of urbanization, and business pursuits affecting land use. For these reasons, the Tribe decided to prioritize its reservations in developing water quality standards rather than adopt a single set of standards covering them all. The U.S. Environmental Protection Agency approved tribal standards for the Big Cypress Reservation in September 1997 and for the Brighton Reservation in November 1998. They are developing water quality standards for the remaining reservations.

The Tribe's Water Resource Management Department is responsible for developing and implementing the water quality standards program. Its mission is to protect and evaluate the Tribe's land and water resources and to facilitate wise use and conservation of those resources. A staff of 17 manages a tribally-funded budget of about \$900,000. In addition, the Water Resource Management Department seeks funds from federal agencies such as the U.S. Department of the Interior and the U.S. Environmental Protection Agency. Although these funds fluctuate annually, they are a very important part of the overall budget.



Brighton Reservation  
Big Cypress Reservation

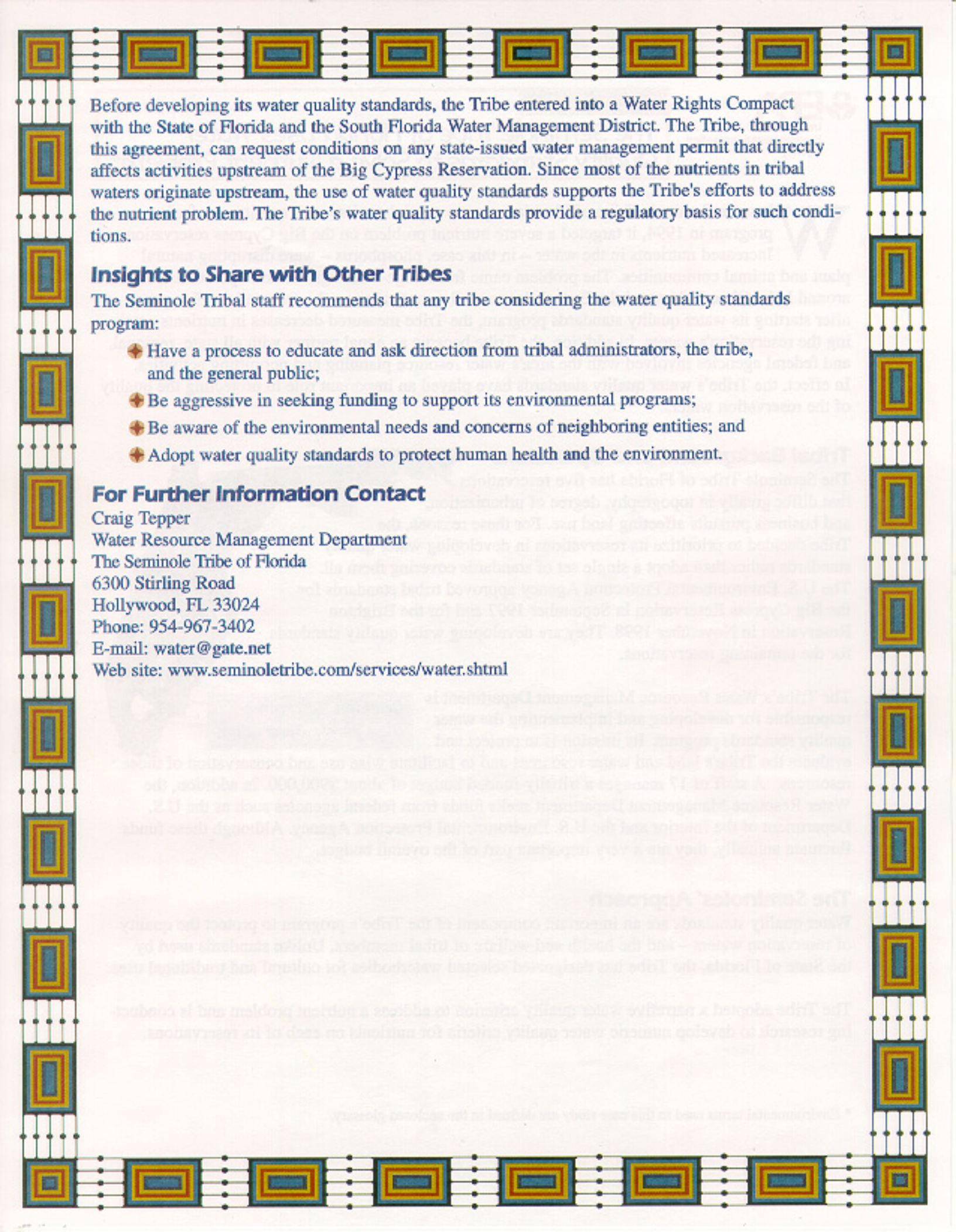
## The Seminoles' Approach

Water quality standards are an important component of the Tribe's program to protect the quality of reservation waters – and the health and welfare of tribal members. Unlike standards used by the State of Florida, the Tribe has designated selected waterbodies for cultural and traditional uses.

The Tribe adopted a narrative water quality criterion to address a nutrient problem and is conducting research to develop numeric water quality criteria for nutrients on each of its reservations.

\* Environmental terms used in this case study are defined in the enclosed glossary.





Before developing its water quality standards, the Tribe entered into a Water Rights Compact with the State of Florida and the South Florida Water Management District. The Tribe, through this agreement, can request conditions on any state-issued water management permit that directly affects activities upstream of the Big Cypress Reservation. Since most of the nutrients in tribal waters originate upstream, the use of water quality standards supports the Tribe's efforts to address the nutrient problem. The Tribe's water quality standards provide a regulatory basis for such conditions.

### **Insights to Share with Other Tribes**

The Seminole Tribal staff recommends that any tribe considering the water quality standards program:

- ◆ Have a process to educate and ask direction from tribal administrators, the tribe, and the general public;
- ◆ Be aggressive in seeking funding to support its environmental programs;
- ◆ Be aware of the environmental needs and concerns of neighboring entities; and
- ◆ Adopt water quality standards to protect human health and the environment.

### **For Further Information Contact**

Craig Tepper  
Water Resource Management Department  
The Seminole Tribe of Florida  
6300 Stirling Road  
Hollywood, FL 33024  
Phone: 954-967-3402  
E-mail: [water@gate.net](mailto:water@gate.net)  
Web site: [www.seminoletribe.com/services/water.shtml](http://www.seminoletribe.com/services/water.shtml)