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# Follow-Up Report on the Review of the Surface Water Ambient Monitoring Program Administered by the Department of Environmental Protection

#### Abstract

• The Department is improving its statewide monitoring of surface water quality. The program will soon provide more complete and timely information about water quality problems. However, the Department still lacks performance data which measure how effectively the program monitors water quality.

#### Purpose

In accordance with s. 11.45(7)(f), F.S., this follow-up report informs the Legislature of actions taken by the Department of Environmental Protection in response to Report No. 94-45, issued April 12, 1995. This report presents our assessment of the extent to which the Department has addressed our findings and recommendations.

# Background

Surface water is the source of drinking water for 10% of Florida's population. Surface water is used for fishing, recreation, transportation, and other activities. The Ambient Monitoring Program, which was created through a merger of the Surface Water Ambient Monitoring Program (SWAMP) with the Ground Water Quality Monitoring Program, is an integrated network which will describe water quality, detect pollution, and predict contamination.

The Ambient Monitoring Program inherited SWAMP's mission: to identify and document existing conditions of the surface waters of the state, to document potential problem areas, and to establish ecoregion reference sites for comparison purposes. In 1993-94, program expenditures were about \$4.6 million. The data collected by SWAMP is stored in a national database maintained by the U.S. Environmental Protection Agency. Thus, the surface water portion of the Ambient Monitoring Program is important to the state and the nation.

Our prior report examined the Department's efforts to reverse a ten-year decline in ambient surface water quality monitoring. In 1991, the Department established SWAMP to increase the number of monitoring stations and, in turn, the amount of water quality data available. The Department also established controls to ensure the accuracy and reliability of the collected data.

# **Prior Findings**

At the time of our report, SWAMP was providing the state with useful water quality information but could not demonstrate that it was doing so effectively. We found that the Department lacked a system design plan, performance measures, and a reliable process for alerting officials to problems with water quality.

The Department began an expansion of SWAMP in 1991 without a system design plan. A system design plan describing the steps for designing a water quality monitoring system ensures that monitoring efforts meet

their purpose and provide needed information. With such a plan, SWAMP would be less likely to duplicate the efforts of other programs and ensure that the state's specific data needs are met.

We reported that performance measures had not been developed for SWAMP. This limited the Legislature's and management's ability to determine whether the program is achieving specific goals. For instance, without performance measures, it is not possible to determine whether the lack of a system design plan has resulted in failure of SWAMP to achieve its goals. Thus, neither the effectiveness nor the cost-effectiveness of SWAMP were measured by the Department.

Although the Department had established goals for notifying officials about environmental problems, we found that there was no formal process to inform responsible officials in the Department or in other state agencies of surface water quality problems. Field monitoring staff in the Department did indicate that they had used SWAMP data to identify potential problem areas and notify appropriate officials.

### **Current Status**

Improvements to the state's surface water monitoring program have been delayed due to reorganization and resource limitations. According to the Department, the ongoing merger of SWAMP with the Ground Water Quality Monitoring Program contributed to delays in planned improvements. Due to the lack of program performance measures, it is not possible to determine if the delay has resulted in missed or untimely identification of water quality problems.

The Department expects to complete its system design plan by late 1998. The Department obtained a federal grant to develop the plan and conduct pilot studies. The first study is complete and a second will be scheduled. Performance measures being developed by the Department do not describe the performance of the program but rather the quality of the water. The Department is in the process of developing goals, objectives, and performance measures as a part of its system design plan. The measures envisioned will be useful water quality indicators, but will not demonstrate how cost-effectively the program uses its resources.

The Department believes that a new computer system will guarantee reliable and timely notification of water quality problems by late 1998. When the system is complete, surface water quality data will be sent directly from analytical laboratories to the program's database and compared to surface water quality standards.

The Department's schedule for implementation of its improvements does not seem to be reliable. As recently as October 1996 the Department expected to have its surface water quality data flowing directly into its database by fall 1997. Program staff reported in June 1997 that only about half of the data will be directly reported by that deadline, with the remaining half being added over the following year. Thus, in eight months the schedule slipped about one year.

#### Suggestion

Internet access to water quality data could further improve public awareness of the Department's findings. For instance, the automated system for reporting surface water quality problems could include posting of its periodic reports on the internet. If resources permit, the Department could maintain a comprehensive online water quality database.

This project was conducted in accordance with applicable evaluation standards. Copies of this report may be obtained by telephone (850/488-0021 or 800/531-2477), by FAX (850/487-3804), in person (Claude Pepper Building, Room 312, 111 W. Madison St.), by mail (OPPAGA Report Production, P.O. Box 1735, Tallahassee, FL 32302) or at OPPAGA's web site (http://www.state.fl.us/oppaga/).

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