

EXECUTIVE SUMMARY

Someone once called Florida springs the crown jewels of the state's natural resources. Aside from their obvious aesthetic, recreational, and economical value, these systems are critical indicators of the health and integrity of the watersheds in which they exist.

The State Legislature has affirmed the significance of springs by creating the Springs Initiative Program, which gave the Department of Environmental Protection the responsibility of increasing public awareness of these systems and of the need to better manage and protect these priceless wonders. The Florida Geological Survey has rallied to the call to preserve these systems by using the resources of its Hydrogeology Program to conduct springs-related research, educational, and outreach activities. Among these activities was the two-day workshop held in Ocala in May of 2002 entitled "Blueprints for the Management and Protection of Florida's Springs."

The workshop was designed to provide a forum for scientists, resource managers, planners, elected officials, and the general public to discuss the current status of springs protection and preservation efforts at all levels of government and to suggest measures to improve such efforts. Invited scientific and policy experts were organized in three panels tasked with discussing the relevant issues from their particular perspectives. Maximum interaction with the audience was encouraged in reaching findings and in making recommendations. This summary is a brief description of each of the panels and of the recommendations made at the conclusion of the workshop.

1. Inventory of springs in Florida:

This panel discussed the level and availability of knowledge and data on springs including the number, location, water quality, and rate of discharge. The panel delved into existing or anticipated threats to springs' integrity and health. The group discussed ways of documenting the location of upland and submarine springs using new technologies such as remote-sensing.

The panel concluded that although methods are currently available for locating springs, traditional methods are labor intensive thus costly and new technologies require more study and are often expensive in terms of equipment and expertise. Currently there is no systematic and well-planned effort to collect spring data in a way that would insure the availability and quality of such data in electronic databases. The panel concluded that key issues to constructing databases are how to classify springs, name them, and give each a unique identification number. Toward that end the panel recommended the establishment of a nomenclature committee (under the FGS's lead), which will also serve as the core of the database development committee, responsible for drafting a report on the issue by December of 2002.

2. Delineation of Springsheds:

The panel recognized that although as many as 10,000 springs may exist in Florida, only some 700, mostly large springs, have been mapped. This panel agreed that the ability to delineate springshed boundaries is essential to the management and protection of these systems. The panelists emphasized that both groundwater and surface-water basins are interactive components of springsheds and that understanding and quantifying such interaction (especially in karstic settings) is critical to the implementation of plans to protect springs against contamination. On the basis of these discussions, the panel adopted a definition of springshed as “those areas within groundwater and surface-water basins that contribute to the discharge of springs.”

The panel went on to identify data and modeling needs for comprehensive springshed delineation and discussed the temporal changes that are likely to exist in springshed boundaries due to changes in the hydrologic system (from pumping, drought, etc.) The group recommended that a preliminary set of springshed maps should be developed using existing cave, sinkhole, aquifer vulnerability, potentiometric surface, and flow-path data. They also recommended that springs of concern should be identified along with areas of concern *within* known springsheds using consistent criteria. There was consensus that such maps should be presented to decision makers and stakeholders alike as an outreach and education resource. The panel also suggested that existing programs such as Blue Belt and Well Head or Source Water Protection should be utilized as possible models for development of springshed management and protection tools.

3. Currently Used or Recommended Measures for Managing and Protecting Springs:

This panel discussed the regulatory measures and land-use practices that have been successful or have shown promise in protecting springs in Florida and elsewhere. It went on to discuss specific ordinances, regulations, statutes, and policies that have been attempted by various levels of government along with the cost and effectiveness of such measures.

The panel concluded that although some good regulations and policies are already “on the books,” most are not being adequately implemented toward the management and protection of springsheds. The panel was in agreement with the participating audience that additional measures are needed. The panelists recommended that specific actions be taken in modifying existing regulations for more effective application to protecting springsheds. Finally the participants adopted a resolution that recommends the formation of a consortium of concerned citizens groups that would draft a legislative bill for springshed protection, possibly modeled after the existing Wekiva River Protection Act. This consortium would also seek sponsorship of such a bill in the legislature by representatives of districts in Florida where springs are issues of interest or concern.