By Representatives Joyner and Lerner

A bill to be entitled

An act relating to drinking water protection and contamination prevention; creating s. 403.065, F.S.; providing legislative findings; providing definitions; providing for a moratorium on permitting of aquifer storage and recovery wells that do not meet specified criteria; requiring the Florida Geological Survey to establish a statewide drinking water reconnaissance; requiring the Department of Health and local health officials to provide for a coordinated response to health threats that may be linked to drinking water contaminants; providing for a waterborne disease tracking network; providing for collection, analysis, and reporting of data; providing appropriations; providing an effective date.

Be It Enacted by the Legislature of the State of Florida:

Section 1. Section 403.065, Florida Statutes, is created to read:

403.065 Drinking water protection and contamination prevention.--

(1) LEGISLATIVE FINDINGS.--

(a) The Legislature finds and declares that it is in the public interest to prevent contamination of drinking water and provide adequate drinking water supplies, to protect the public health from waterborne diseases, to provide support for natural systems, to conserve water resources, and to use

caution when operating in a sphere of scientific uncertainty. The Legislature further finds that groundwater supplies more than 90 percent of the state's residents with drinking water, due in part to the contamination of surface waters. The Legislature further finds that it is necessary to prevent contamination of water from biological and chemical waste in order to reduce the incidence of waterborne diseases and protect vulnerable marine and freshwater ecosystems. The Legislature further finds that Florida's water supply is threatened by the over-allocation of water for industrial, agricultural, and domestic purposes, which has contributed to the creation of a water crisis in the state.

(b) The Legislature recognizes the inadequacy of existing data and information on the extent of contamination of the state's surface and ground water and the impact of aquifer storage and recovery on these water resources. Issues of concern for which adequate data and information do not exist include:

1. The chemical and biological effects of mixing surface, ground, or reclaimed water with native groundwater.

2. The fate of biological contaminants, including viruses, protozoa, and bacteria, contained in water that may be injected into, above, or below underground sources of drinking water, as defined by 42 U.S.C. s. 300h, et. seq. and 40 C.F.R. 144.3 (2000), through aquifer storage and recovery wells.

3. The aggregate hydraulic and geologic impacts of injecting billions of gallons of ground and surface water per day into, above, or below underground sources of drinking water.

4. Possible fracturing of overlying geologic formations that may be caused by injection pressure or pressure buildup within an injection zone, and the subsequent endangerment of underground sources of drinking water.

5. The impact of aquifer storage and recovery wells on current and future public water supply systems.

6. The impact of aquifer storage and recovery wells on private wells used for domestic purposes.

7. The reliability of institutional controls to prevent exposure to humans of groundwater contaminated by surface, ground, or reclaimed water stored through the use of aquifer storage and recovery wells.

8. The extent and impact of aquifer transformation products created as the result of the aquifer storage and recovery wells.

9. The extent and impact of toxins created by harmful algal blooms.

10. The direct, indirect, and societal costs associated with drinking water contamination, including, but not limited to, treatment costs borne by public water supply systems and owners of private wells.

11. The impact of the disposal of municipal effluent into the regional aquifer systems which receive surface and ground water from aquifer storage and recovery wells.

12. The impact of land use activities on the availability of fresh water for domestic, industrial, and agricultural purposes.

(2) DEFINITIONS.--As used in this section:

(a) "Recovered water" means water that is injected through aquifer storage and recovery wells and later withdrawn for domestic, industrial, agricultural, or environmental use

by the operator of aquifer storage and recovery wells or any other person.

(b) "Source water" means ground and surface water that is injected through aquifer storage and recovery wells.

(3) MORATORIUM; PERMIT CRITERIA FOR AQUIFER STORAGE AND RECOVERY WELLS.--A moratorium is imposed on the issuance of permits by the Department of Environmental Protection for aquifer storage and recovery wells that do not meet the following criteria:

(a) Compliance with all primary and secondary drinking water standards.

(b) Determination of no adverse effect to human or ecological health from contaminants in the source water, with such contaminants evaluated through the following measures:

1. Priority pollutant scan.

2. Comparison of contaminants in the source water to those listed on the United States Environmental Protection Agency's "Chemical Hazard Data Availability Study."

3. Assessment of the source water to determine the levels of human and veterinary pharmaceutical agents.

4. Assessment of the source water to determine the levels of toxins produced by harmful algal blooms.

5. Assessment of the source water to determine the levels of reproductive and steroidal hormones and endocrine disrupters.

6. Assessment of the source water to determine the levels of industrial and household wastewater products, such as flame retardants and personal care products.

7. Analysis of the surface water planned for injection pursuant to the total maximum daily load program.

(c) Determination that the operator of the aquifer storage and recovery wells and all public water supply systems that may withdraw water impacted by the aquifer storage and recovery wells own and operate a monitoring system that can detect the presence of any biological or chemical contaminant with a 99.9999-percent degree of accuracy in the source water, injected water, and recovered water. This system must possess the capability to perform analytical methods that are proficient in detecting contaminants at environmentally relevant concentrations, including measurements of emerging contaminants at trace levels of 1 part per billion.

(d) Determination that the receiving waters of the aquifer storage and recovery well have a total dissolved solids concentration of 3,000 milligrams per liter or greater, and there is no possibility of upward seepage of the source water into aquifers with a total dissolved solids concentration of less than 3,000 milligrams per liter.

(e) Determination prior to injection of zero tolerance for all microorganisms, including bacteria, viruses, and protozoa, in the recovered water.

(f) Determination that the uptake and re-release of microbial contaminants in the subsurface will achieve zero tolerance for all microorganisms, including bacteria, viruses, and protozoa, in the recovered water.

(g) Determination prior to injection that recovery of source water injected through aquifer storage and recovery wells will achieve 95 percent of the total volume injected.

(4) STATEWIDE DRINKING WATER RECONNAISSANCE.--In order to ensure a system of accountability for prevention of contamination of the state's drinking water, the Florida Geological Survey shall establish a statewide drinking water

reconnaissance which shall provide baseline information on the environmental occurrence of biological and chemical contaminants in water resources. This reconnaissance shall have a special focus on emerging contaminants from animal or human wastewater and shall provide:

(a) The first statewide assessment of the occurrence of contaminants in surface water and groundwater.

(b) A focal point for the development and testing of new laboratory analytical methods for measuring compounds in environmental samples.

(c) A basis for the designing research investigations that focus on root causes of water contamination and depletion.

(5) COORDINATED RESPONSE TO HEALTH THREATS; WATERBORNE DISEASE TRACKING NETWORK.--In order to ensure a rapid and coordinated response to detect and respond effectively to waterborne disease clusters, emerging threats, emergencies, and environmental outbreaks, the Department of Health, in collaboration with local health officials, shall establish capacities to ensure a coordinated response to health threats potentially linked to contaminants in drinking water. This capacity shall include the following:

(a) Creation and operation of a waterborne disease tracking network that will:

1. Collect data by county concerning the prevalence and incidence of waterborne diseases.

2. Collect data through biomonitoring and other methods concerning the existence of relevant environmental factors and exposures.

3. Analyze data collected under subparagraphs 1. and 2. to identify populations at high risk, examine health

concerns, recognize related environmental factors, assess the efficacy of medical and intervention efforts, and establish prevention strategies.

(b) Annually reporting such data and analysis in a manner that makes this information widely available in a timely fashion and in an easily accessible form, to allow public health officials and members of the public to respond with appropriate public health activities, while at the same time protecting individual privacy.

(c) Such other activities as the Secretary of Health may prescribe.

Section 2. (1) There is hereby appropriated from the _____ Trust Fund to the Florida Geological Survey for fiscal year 2002-2003 the sum of $0.75 million to fund the statewide drinking water reconnaissance and related activities as necessary to carry out the provisions of s. 403.065, Florida Statutes.

(2) There is hereby appropriated from the _____ Trust Fund to the Department of Health for fiscal year 2002-2003 the sum of $0.75 million to fund the waterborne disease tracking network and related activities as necessary to carry out the provisions of s. 403.065, Florida Statutes.

Section 3. This act shall take effect July 1, 2002.

****

HOUSE SUMMARY

Provides legislative findings regarding the protection of the state's drinking water sources from contamination and the provision of drinking water supplies through aquifer storage and recovery wells. Provides definitions. Provides for a moratorium on permitting of aquifer storage and recovery wells that do not meet specified criteria for permitting. Requires the Florida Geological Survey to establish a statewide drinking water reconnaissance to provide information on water resource contamination. Requires the Department of Health and local health officials to provide for a coordinated response to health threats that may be linked to drinking water contaminants. Provides for creation and operation of a waterborne disease tracking network and provides for collection, analysis, and reporting of data. Provides appropriations.