

**STORAGE NAME:** h1757.ep

**DATE:** March 21, 2000

**HOUSE OF REPRESENTATIVES  
AS REVISED BY THE COMMITTEE ON  
ENVIRONMENTAL PROTECTION  
ANALYSIS**

**BILL #:** HB 1757

**RELATING TO:** Demineralization Concentrate

**SPONSOR(S):** Committee on Water and Resource Management & Representative Alexander

**TIED BILL(S):** None

**ORIGINATING COMMITTEE(S)/COMMITTEE(S) OF REFERENCE:**

- (1) WATER AND RESOURCE MANAGEMENT YEAS 10 NAYS 1
  - (2) ENVIRONMENTAL PROTECTION
  - (3) GOVERNMENT RULES AND REGULATIONS
  - (4) GENERAL GOVERNMENT APPROPRIATIONS
  - (5)
- 

**I. SUMMARY:**

HB 1757 makes numerous changes and revisions to the existing statute on demineralization, s. 403.0882, F.S., in order to streamline the permitting process.

It reorganizes s. 403.0882, F.S. to remove or reword confusing language and updates the statute according to the latest DEP rules and industry developments; provides Legislative intent and additional directory language to promote alternative water supply development; gives DEP rulemaking authority to address the mechanics of the permitting process for desalination; and establishes a technical advisory committee to assist with the development of the rule.

In addition, the bill addresses the evaluation of toxicity tests in relation to permitting. It states that the failure of these tests due to the presence of specific, naturally occurring source water constituents (e.g. calcium, potassium, sodium, etc.) cannot be used as the basis to deny a permit and lists the provisions under which these permits are to be issued (e.g. sufficient dilution is available).

It also provides a narrowly defined exemption from the mixing zone prohibition in Outstanding Florida Waters (OFWs) for those demineralization discharges that contain specific, naturally occurring source water constituents and can be sufficiently diluted. These discharges must be clearly in the public interest.

The bill has an indeterminate fiscal impact, which is anticipated to be cost savings for local governments and the private sector because of a streamlined permitting process.

There are no apparent constitutional or other legal concerns with the legislation.

The bill provides that the act shall take effect upon becoming law.

II. SUBSTANTIVE ANALYSIS:

A. DOES THE BILL SUPPORT THE FOLLOWING PRINCIPLES:

- |                                   |                              |                             |   |
|-----------------------------------|------------------------------|-----------------------------|---|
| 1. <u>Less Government</u>         | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> |
| 2. <u>Lower Taxes</u>             | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> |
| 3. <u>Individual Freedom</u>      | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> |
| 4. <u>Personal Responsibility</u> | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> |
| 5. <u>Family Empowerment</u>      | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> |

For any principle that received a "no" above, please explain:

B. PRESENT SITUATION:

With water supplies growing more precious in the state of Florida, options other than traditional groundwater withdrawals are being explored. One example of such an alternative water supply source is demineralization of non-potable water. Demineralization removes salts, minerals, and other constituents from sources such as seawater or brackish water aquifers to give two products: fresh, potable water and a demineralization concentrate. Examples of demineralization processes include electrodialysis, which uses an electrical current to move salts selectively through a membrane, and reverse osmosis (R/O). Reverse osmosis subjects water on one side of a semi-permeable, plastic-like membrane to pressure which causes fresh water to diffuse through the membrane. Left behind is the concentrate. Whether the resulting concentrate is toxic is a function of the source water for demineralization and the disposal method for the concentrate either by surface water discharge or deep well injection.

Current difficulties encountered in the demineralization industry in Florida include:

- o uncertainty and inconsistency in permitting these types of facilities due to the lack of a clearly defined permitting process and misinterpretation of existing law (in s. 403.0882, F.S.) regarding demineralization facilities both by the DEP and industry, and
- o how to deal with the disposal of the resulting demineralization concentrate, particularly if testing indicates that the concentrate may be toxic.

C. EFFECT OF PROPOSED CHANGES:

HB 1757 makes numerous changes to the existing statute on demineralization.

- o It reorganizes s. 403.0882, F.S. to remove or reword confusing language and updates the statute according to the latest DEP rules and industry developments;
- o It provides legislative intent and additional directory language to promote alternative water supply development;

- o It provides for specific DEP rulemaking authority to address the mechanics of the permitting process for desalination and establishes a technical advisory committee to assist with the development of the rule;
- o It addresses the evaluation of toxicity tests in relation to permitting. States that the failure of these tests due to the presence of specific naturally occurring source water constituents (e.g. calcium, potassium, sodium, etc.) cannot be used as the basis to deny a permit and lists the provisions under which these permits are to be issued (e.g. sufficient dilution is available); and
- o It provides a narrowly defined exemption from the mixing zone prohibition for OFWs for those demineralization discharges that contain specific, naturally occurring source water constituents and can be sufficiently diluted. These discharges must be clearly in the public interest. This exemption is very narrowly drawn and highly specific so as to continue the protective nature of OFW designations.

**D. SECTION-BY-SECTION ANALYSIS:**

Section 1: Substantially amends s. 403.0882, F.S. Establishes legislative intent regarding water supplies and their conservation through promotion of brackish water demineralization as an alternative to freshwater ground and surface water withdrawals. Provides definitions, classifies demineralization concentrate as a potable water byproduct and removes the statement from the existing statute that this discharge shall be permitted according to industrial wastewater requirements. Requires DEP to promulgate rules (rulemaking shall be entered into by October 1, 2000) and establishes a technical advisory committee to assist in the development of rules relating to:

- o Permit application forms for desalination facilities;
- o Specific options and requirements for demineralization concentrate disposal;
- o Specific requirements and methods for evaluating mixing of effluent in receiving waters; and
- o Specific toxicity provisions.

Specifies that the technical advisory committee will be comprised of members from the water management districts, the demineralization industry, local government, and environmental organizations. Provides that permits may not be denied as a result of the failure of toxicity tests for demineralization concentrate due predominantly to specific naturally occurring substances in the source water as long as water quality standards can be achieved within a particular area of the discharge. Provides for the blending of demineralization concentrate with reclaimed water according to DEP rules.

Reorganizes existing statutory provisions for small water-utility businesses into one subsection to prevent confusion about their applicability. These provisions allow for demineralization discharges by small water utility businesses into all the waters of the state if :

- o The discharges meet the standards set forth in this section and s. 403.086(4), with an exemption from high level disinfection requirements;

- o The point of discharge is located at a reasonably accessible point that minimizes water quality impacts; or
- o The discharge achieves a minimum of a 4-to-1 dilution within a distance not in excess of two times the natural water depth at the point of discharge. Thus, the 200-foot radius provision found in the current statute has been removed.

Provides exceptions to allowing small water-utility businesses demineralization discharges are provided if:

- o The discharge would be directly into an OFW, except as provided in chapter 90-262, Laws of Florida, class I or II waters, or a sole-source aquifer;
- o The discharge wouldn't meet DEP's anti-degradation requirements or would fail to meet surface and ground water quality standards; or
- o The results of any toxicity test indicate the discharge does not meet the toxicity requirements at the boundary of the mixing zone.

Provides that if any of these "disqualifiers" are met, DEP *may*:

- o Require more stringent effluent limitations, relocation of the discharge point, or a change in the discharge method;
- o Limit the discharge volume or duration; or
- o Prohibit the discharge if no alternatives are available.

Requires toxicity testing for small water-utility businesses only at the time of permit application, renewal, or modification; additional tests are mandated only if these requisite tests do not meet toxicity requirements. Provides that small water-utility businesses are not required to obtain a water-quality-based effluent limitation determination. Reauthorizes existing rulemaking to allow DEP to adopt rules for the regulation of demineralization and to implement the provisions of this section.

Section 2: Amends s. 403.061, F.S., to include an additional exception to the "no mixing zone" provision for OFWs. Provides that mixing zones are allowable in OFWs for discharges of demineralization concentrate if the discharge meets the provisions of s. 403.0882(4), F.S. (i.e., if the discharge is toxic predominantly due to specific naturally occurring substances in the source water), is clearly in the public interest.

Section 3: Provides that this act shall take effect upon becoming a law.

### III. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT:

#### A. FISCAL IMPACT ON STATE GOVERNMENT:

1. Revenues:

N/A.

2. Expenditures:

See Fiscal Comments.

B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

1. Revenues:

N/A

2. Expenditures:

See Fiscal Comments.

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

See Fiscal Comments.

D. FISCAL COMMENTS:

HB 1757 could allow for decreased expenditures for state and local governments and the private sector due to a clearly defined permitting procedure for demineralization facilities that would take less time to process. In addition, the mixing zone exception for OFWs could result in significant savings in plant design for these same entities where discharges into OFWs have been prohibited as surface water discharges costs would be much lower than deep well injection.

IV. CONSEQUENCES OF ARTICLE VII, SECTION 18 OF THE FLORIDA CONSTITUTION:

A. APPLICABILITY OF THE MANDATES PROVISION:

The bill does not require counties or municipalities to expend funds or to take an action requiring the expenditure of funds.

B. REDUCTION OF REVENUE RAISING AUTHORITY:

The bill does not reduce the authority that municipalities or counties have to raise revenues in the aggregate.

C. REDUCTION OF STATE TAX SHARED WITH COUNTIES AND MUNICIPALITIES:

The bill does not reduce the percentage of state tax shared with counties and municipalities.

**STORAGE NAME:** h1757.ep

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**PAGE 6**

V. COMMENTS:

A. CONSTITUTIONAL ISSUES:

N/A

B. RULE-MAKING AUTHORITY:

HB 1757 requires DEP rulemaking to address specific provisions in the bill. In addition, rulemaking authority found in the current statute (s. 403.0882, F.S.) to “adopt rules for the regulation of demineralization and to implement the provisions of this section” is restated.

C. OTHER COMMENTS:

None

VI. AMENDMENTS OR COMMITTEE SUBSTITUTE CHANGES:

N/A.

VII. SIGNATURES:

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