

The Florida Senate
BILL ANALYSIS AND FISCAL IMPACT STATEMENT

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

Prepared By: The Professional Staff of the Committee on Environment and Natural Resources

BILL: SB 880

INTRODUCER: Senator Brodeur

SUBJECT: Biosolids

DATE: March 13, 2023

REVISED: _____

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Carroll	Rogers	EN	Pre-meeting
2.			AEG	
3.			AP	

I. Summary:

SB 880 authorizes the Department of Environmental Protection (DEP) to provide grants from the wastewater grant program for projects that convert wastewater residuals to Class A and Class AA biosolids. DEP must prioritize the projects by considering the cost-effectiveness and overall environmental benefit of the project.

The bill prohibits DEP from authorizing a land application site permit for a Class B biosolid within the subwatershed of a waterbody designated as impaired or within an adjoining upstream subwatershed containing surface waters that flow to a waterbody designated as impaired unless the applicant affirmatively demonstrates that the phosphorus and nitrogen in the biosolids will not add to the nutrient load in the impaired subwatershed. DEP must annually publish updated maps designating the subwatersheds of waterbodies protected under the prohibition.

The bill provides deadlines by which new or renewed Class B biosolid land application site permits must meet statutory biosolids management requirements.

The bill directs DEP to administer financial assistance so that at least 15 percent of the funding made available each year under the Clean Water State Revolving Fund is reserved for projects that convert wastewater residuals to Class A and Class AA biosolids during the year such funding is reserved.

II. Present Situation:

Water Quality and Nutrients

Phosphorus and nitrogen are naturally present in water and are essential nutrients for the healthy growth of plant and animal life.¹ The correct balance of both nutrients is necessary for a healthy ecosystem; however, excessive nitrogen and phosphorus can cause significant water quality problems.²

Phosphorus and nitrogen are derived from natural and human-made sources.³ Human-made sources include sewage disposal systems (wastewater treatment facilities and septic systems), overflows of storm and sanitary sewers (untreated sewage), agricultural production and irrigation practices, and stormwater runoff.⁴ Excessive nutrient loads may result in harmful algal blooms, nuisance aquatic weeds, and the alteration of the natural community of plants and animals.⁵

Impaired Waters

Under section 303(d) of the federal Clean Water Act, states must establish water quality standards for waters within their borders and then develop a list of impaired waters that do not meet the established water quality standards and a list of threatened waters that may not meet water quality standards in the following reporting cycle.⁶

Due to limited funds and the wide variety of surface waters in Florida, the Department of Environmental Protection (DEP) has sorted those waters into 29 major watersheds, or basins, and further organized them into five basin groups for assessment purposes.⁷ If DEP determines that any waters are impaired, the waterbody or segment must be placed on the verified list of impaired waters and a total maximum daily load (TMDL) must be calculated.⁸ A waterbody or segment may be removed from the list at any time during the TMDL process if it attains water quality criteria.⁹ If DEP determines that a waterbody is impaired, but further study is needed to determine the causative pollutants or other factors contributing to impairment before the

¹ U.S. Environmental Protection Agency, *The Issue*, <https://www.epa.gov/nutrientpollution/issue> (last visited Feb. 10, 2023).

² *Id.*

³ *Id.*

⁴ U.S. Environmental Protection Agency (EPA), *Sources and Solutions*, <https://www.epa.gov/nutrientpollution/sources-and-solutions> (last visited Feb 10, 2023).

⁵ EPA, *The Issue*, <https://www.epa.gov/nutrientpollution/issue> (last visited Feb. 10, 2023).

⁶ EPA, *Overview of Identifying and Restoring Impaired Waters under Section 303(d) of the CWA*, <https://www.epa.gov/tmdl/overview-identifying-and-restoring-impaired-waters-under-section-303d-cwa> (last visited Feb. 24, 2023); 40 C.F.R. 130.7. Following the development of the list of impaired waters, states must develop a total maximum daily load for every pollutant/waterbody combination on the list. A total maximum daily load is a scientific determination of the maximum amount of a given pollutant that can be absorbed by a waterbody and still meet water quality standards. DEP, *Total Maximum Daily Loads Program*, <https://floridadep.gov/dear/water-quality-evaluation-tmdl/content/total-maximum-daily-loads-tmdl-program> (last visited Feb. 10, 2023).

⁷ DEP, *Assessment Lists*, <https://floridadep.gov/dear/watershed-assessment-section/content/assessment-lists> (last visited Feb. 24, 2023).

⁸ *Id.*; DEP, *Verified List Waterbody Ids (WBIDs)*, <https://geodata.dep.state.fl.us/datasets/FDEP::verified-list-waterbody-ids-wbids/about> (last visited Feb. 24, 2023); and s. 403.067(4), F.S.

⁹ Section 403.067(5), F.S.

waterbody is placed on the verified list, the waterbody or segment will be placed on the statewide comprehensive study list.¹⁰

Biosolids

The proper treatment and disposal or reuse of domestic wastewater is an important part of protecting Florida's water resources. The majority of Florida's domestic wastewater is controlled and treated by centralized treatment facilities regulated by DEP. Florida has approximately 2,000 permitted domestic wastewater treatment facilities.¹¹

When domestic wastewater is treated, solid, semisolid, or liquid residue known as biosolids¹² accumulates in the wastewater treatment plant and must be removed periodically to keep the plant operating properly.¹³ Biosolids also include products and treated material from biosolids treatment facilities and septage management facilities regulated by DEP.¹⁴ The collected residue is high in organic content and contains moderate amounts of nutrients.¹⁵

According to DEP's estimates in 2019, wastewater treatment facilities produce about 340,000 dry tons of biosolids each year.¹⁶ Biosolids can be disposed of in several ways: transfer to another facility, placement in a landfill, distribution and marketing as fertilizer, incineration, bioenergy, and land application to pasture or agricultural lands.¹⁷ In 2019, about one-third of the total amount of biosolids produced was used for land application¹⁸ and is subject to regulatory requirements established by DEP to protect public health and the environment.¹⁹

Land application of biosolids involves spreading biosolids on the soil surface or incorporating or injecting biosolids into the soil at a permitted site.²⁰ This practice provides nutrients and organic matter to the soil on agricultural land, golf courses, forests, parks, mine reclamation sites, and other disturbed lands. Composted and treated biosolids are used by landscapers and nurseries, and by homeowners for their lawns and home gardens.²¹

¹⁰ Section 403.067(2), F.S.; ch. 62-303.150, F.A.C.

¹¹ DEP, *General Facts and Statistics about Wastewater in Florida*, <https://floridadep.gov/water/domestic-wastewater/content/general-facts-and-statistics-about-wastewater-florida> (last visited Feb. 10, 2023).

¹² Biosolids are the solid, semisolid, or liquid residue generated during the treatment of domestic wastewater in a domestic wastewater treatment facility and include products and treated material from biosolids treatment facilities and septage management facilities. The term does not include the treated effluent or reclaimed water from a domestic wastewater treatment facility, solids removed from pump stations and lift stations, screenings and grit removed from the preliminary treatment components of domestic wastewater treatment facilities, or ash generated during the incineration of biosolids. Section 373.4595, F.S.

¹³ DEP, *Domestic Wastewater Biosolids*, <https://floridadep.gov/water/domestic-wastewater/content/domestic-wastewater-biosolids> (last visited Mar. 7, 2023).

¹⁴ Fla. Admin. Code R. 62-640.200(6).

¹⁵ DEP, *Domestic Wastewater Biosolids*.

¹⁶ DEP, *Biosolids in Florida*, 5 (2019), available at <https://www.florida-stormwater.org/assets/MemberServices/Conference/AC19/02%20-%20Frick%20Tom.pdf#:~:text=Biosolids%20and%20Management%20in%20Florida%20Estimated%20Total%20Production%20two-thirds%20are%20beneficially%20used%20and%20onethird%20is%20landfilled> (last visited Mar. 7, 2023).

¹⁷ *Id.* at 4.

¹⁸ *Id.* at 5.

¹⁹ Fla. Admin. Code R. 62-640.

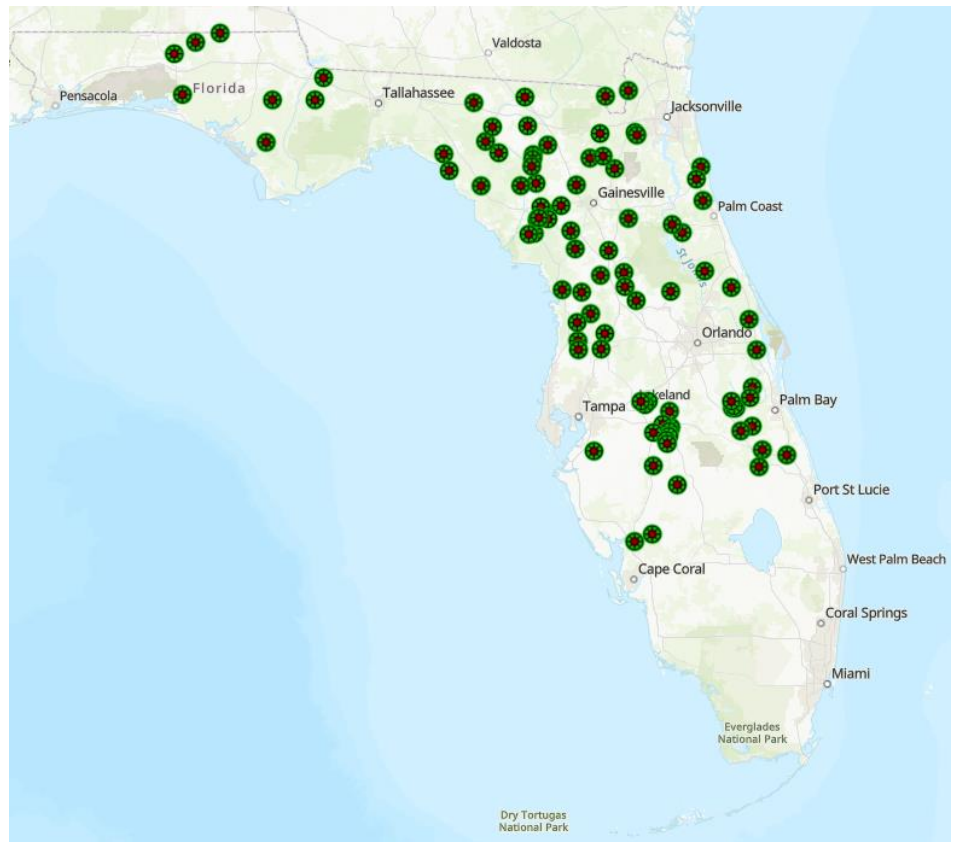
²⁰ EPA, *Land Application of Biosolids*, <https://www.epa.gov/biosolids/land-application-biosolids> (last visited Mar. 8, 2023).

²¹ *Id.*

Regulation of Biosolids in Florida

DEP regulates three classes of biosolids for beneficial use: Class AA, Class A, and Class B biosolids.²² The classes are categorized based on treatment and quality, with Class AA biosolids receiving the highest level of treatment, and Class B receiving the lowest.²³ Treatment of biosolids must reduce pathogens, the attractiveness of the biosolids for pests like insects and rodents, and the amount of toxic metals in the biosolids.²⁴

Class AA biosolids can be distributed and marketed like other commercial fertilizers with few further restrictions.²⁵ Typically, Class B biosolids are used in land application and the map on this page shows permitted Class B biosolids land application sites.²⁶ At the time of land application, there must be a minimum unsaturated soil depth of two feet between the depth of biosolids placement and the water table level.²⁷ Biosolids may not be applied on soils where the seasonal high-water table is less than six inches from the intended depth of biosolids placement, unless a nutrient management plan and water quality monitoring plan provide reasonable assurances that the land application of biosolids at the site will not cause or contribute to a violation of surface water quality standards or groundwater standards.²⁸



²² Chapter 62-640.200, F.A.C.

²³ *Id.*; DEP, *Domestic Wastewater Biosolids*.

²⁴ Chapter 62-640.200, F.A.C.

²⁵ DEP, *Domestic Wastewater Biosolids*; National Biosolids Data Project, *Florida Biosolids*, <https://www.biosolidsdata.org/florida> (last visited Mar. 8, 2023); ch. 62-640.850, F.A.C.

²⁶ DEP, *Biosolids in Florida* at 4; DEP, *Domestic Wastewater Biosolids*; DEP, *Wastewater Facility Regulation (WAFR) Map – Residual Application Sites*, <https://www.arcgis.com/apps/mapviewer/index.html?layers=70300d6abaa5463e83091786599d06dd> (last visited Mar. 8, 2023).

²⁷ Section 403.0855(3), F.S.

²⁸ *Id.*

Biosolids are regulated under Rule 62-640 of the Florida Administrative Code. The rules provide minimum requirements, including monitoring and reporting requirements, for the treatment, management, use, and disposal of biosolids. The rules are applicable to wastewater treatment facilities, applicators, and distributors²⁹ and include permit requirements for both treatment facilities and biosolids application sites.³⁰

Each permit application for a biosolids land application site must include a site-specific nutrient management plan (NMP) that establishes the specific rates of application and procedures.³¹ Biosolids may only be applied to sites that are permitted by DEP and have a valid NMP.³² Biosolids must be applied at rates established in accordance with the NMP and may be applied to a site only if all concentrations of minerals do not exceed ceiling and cumulative concentrations determined by rule.³³

Once a facility or site is permitted, it is subject to monitoring, record-keeping, reporting, and notification requirements.³⁴ The requirements are site-specific and can be increased or reduced by DEP based on the quality or quantity of wastewater or biosolids treated; historical variations in biosolids characteristics; industrial wastewater or sludge contributions to the facility; the use, land application, or disposal of the biosolids; the water quality of surface and ground water and the hydrogeology of the area; wastewater or biosolids treatment processes; and the compliance history of the facility or application site.³⁵

Bans on the Land Application of Biosolids

Section 373.4595, F.S., sets out the statutory guidelines for the Northern Everglades and Estuaries Protection Program. This statute is designed to protect and promote the hydrology of Lake Okeechobee and the Caloosahatchee and St. Lucie rivers and their estuaries. As part of those protections, the Legislature banned the disposal of domestic wastewater biosolids within the Lake Okeechobee, Caloosahatchee River, and St. Lucie River watersheds unless the applicant can affirmatively demonstrate that the nutrients in the biosolids will not add to nutrient loadings in the watershed.³⁶ The prohibition against land application in these watersheds does not apply to Class AA biosolids that are distributed as fertilizer products in accordance with Rule 62-640.850 of the Florida Administrative Code.³⁷

The land application of Class A and Class B biosolids is also prohibited within priority focus areas in effect for Outstanding Florida Springs if the land application is not in accordance with an NMP that has been approved by DEP.³⁸ The NMP must establish the rate at which all biosolids, soil amendments, and nutrient sources at the land application site can be applied to the

²⁹ Fla. Admin. Code R. 62-640.100.

³⁰ Fla. Admin. Code R. 62-640.300.

³¹ Fla. Admin. Code R. 62-640.500.

³² *Id.*

³³ Fla. Admin. Code R. 62-640.700.

³⁴ Fla. Admin. Code R. 62-640.650.

³⁵ *Id.*

³⁶ Chapter 2016-1, Laws of Florida; *see* s. 373.4595, F.S.

³⁷ *Id.*

³⁸ Section 373.811(4), F.S.

land for crop production, while minimizing the amount of pollutants and nutrients discharged into groundwater and waters of the states.³⁹

A municipality or county may regulate the land application of Class A or Class B biosolids if the regulation was adopted before November 1, 2019. Such regulations are valid until repealed by the municipality or county.⁴⁰

Florida's Wastewater Grant Program

The Legislature created the wastewater grant program with the passage of the Clean Waterways Act in 2020.⁴¹ The legislation authorized DEP to provide grants to governmental entities for wastewater projects that reduce excess nutrient pollution within a basin management action plan,⁴² alternative restoration plan adopted by final order,⁴³ or rural area of opportunity.⁴⁴ The program requires at least a 50 percent local match for each grant, although the requirement may be waived for rural areas of opportunity. Certain projects relating to septic and sewer systems are eligible.⁴⁵

DEP coordinates with the water management districts to identify grant recipients in each district.⁴⁶ DEP must consider the estimated reduction in nutrient load per project; project readiness; the cost-effectiveness of the project; the overall environmental benefit of the project; the location of the project; the availability of local matching funds; and projected water savings or quantity improvements associated with the project.⁴⁷ DEP submits an annual report that identifies the projects funded through the grant program to the Governor and the Legislature.⁴⁸

³⁹ *Id.*

⁴⁰ Section 403.0855, F.S.

⁴¹ Chapter 2020-150, Laws of Fla.; s. 403.0673, F.S.

⁴² Basin management action plans are one of the primary mechanisms DEP uses to achieve TMDLs; they are plans that address the entire pollution load for a watershed. Section 403.067(7), F.S.

⁴³ An alternative restoration plan is a strategy developed and implemented to quickly address water quality issues to postpone or prevent a waterbody from being listed on the verified list of impaired waters. There are two types of alternative restoration plans: reasonable assurance plans and pollutant reduction plans. DEP, *FAQs for the Alternative Restoration Plan Webpage*, <https://floridadep.gov/dear/alternative-restoration-plans/content/alternative-restoration-plan-webpage-faqs#:~:text=What%20is%20an%20Alternative%20Restoration%20Plan%3F%20It%20is,being%20on%20the%20Verified%20List%20of%20Impaired%20Waters> (last visited Feb. 28, 2023).

⁴⁴ Section 403.0673(1), F.S. Rural areas of opportunity are rural communities, or a region composed of rural communities that have been adversely affected by extraordinary economic events of natural disasters. Florida Department of Economic Opportunity, *Rural Areas of Opportunity*, <https://floridajobs.org/community-planning-and-development/rural-community-programs/rural-areas-of-opportunity> (last visited Feb. 24, 2023).

⁴⁵ *Id.*

⁴⁶ Section 403.0673(4), F.S.

⁴⁷ Section 403.0673(2), F.S.

⁴⁸ Section 403.0673(5), F.S.

The wastewater grant program is funded by documentary stamp tax revenues.⁴⁹ After required distributions from documentary stamp tax revenues are disbursed,⁵⁰ an amount equaling 5.4175 percent of the remainder is paid into the Water Protection and Sustainability Program Trust Fund to be used to fund wastewater grants.⁵¹ The Office of Economic and Demographic Research estimates that the distribution for wastewater grants in fiscal year 2023-2024 will be \$134.5 million.⁵²

Clean Water State Revolving Fund

The Clean Water State Revolving Fund (CWSRF) program is a joint federal and state program administered in Florida by DEP through the State Revolving Fund Program.⁵³ It provides low-interest loans for planning, designing, and constructing water pollution control facilities.⁵⁴ To date, the CWSRF program has provided over \$4 billion in total loans.⁵⁵ The total appropriation for the CWSRF for fiscal year 2023-2024 is expected to be \$304,671,849. DEP receives requests for funding throughout the year for wastewater, stormwater, and certain energy and other types of projects.⁵⁶ The information gathered in the request is used to list projects in order of priority for funding at the beginning of each fiscal year and each quarter thereafter, as funds are available.⁵⁷

The CWSRF program can fund a wide variety of infrastructure projects.⁵⁸ Eligible projects and activities are listed under Section 603 of the Federal Water Pollution Control Act (also known as the Clean Water Act).⁵⁹ The following types of projects are eligible to receive CWSRF program assistance:

- Construction of publicly owned treatment works;
- Nonpoint source pollution management;
- National estuary program projects;
- Decentralized wastewater treatment systems;
- Stormwater management, reduction, treatment, or recapture;
- Water conservation, efficiency, and reuse measures;
- Watershed pilot projects;
- Energy efficiency measures;

⁴⁹ Section 201.15(4)(h), F.S. Documentary stamp tax revenues are collected under ch. 201, F.S., which requires an excise tax to be levied on two classes of documents: deeds and other documents related to real property, which are taxed at the rate of 70 cents per \$100; and certificates of indebtedness, promissory notes, wage assignments, and retail charge account agreements, which are taxed at 35 cents per \$100. *See* ss. 201.02(1)(a) and 201.08(1)(a), F.S.

⁵⁰ The required distributions are to the Land Acquisition Trust Fund and the service charge representing the estimated pro rata share of the cost of general government paid from the General Revenue Fund. Section 201.15(4), F.S.

⁵¹ Section 201.15(4)(h), F.S.

⁵² Office of Economic and Demographic Research, *Conference Results*, (2022) available at <http://edr.state.fl.us/Content/conferences/docstamp/docstampresults.pdf>.

⁵³ Section 403.1835(1), F.S.; DEP, *CWSRF Program*, <https://floridadep.gov/wra/srf/content/cwsrf-program> (last visited Feb. 24, 2023).

⁵⁴ DEP, *CWSRF Program*.

⁵⁵ DEP, *DEP Funding for Domestic Wastewater Projects*.

⁵⁶ DEP, *CWSRF Program*.

⁵⁷ *Id.*

⁵⁸ EPA, *Learn about the Clean Water State Revolving Fund (CWSRF)*, <https://www.epa.gov/cwsrf/learn-about-clean-water-state-revolving-fund-cwsrf#eligibilities> (last visited Mar. 9, 2023).

⁵⁹ Section 403.1835(1), F.S.

- Water reuse projects;
- Security measures at publicly-owned treatment works; and
- Technical assistance to owners and operators of small and medium-sized publicly-owned treatment works to plan, develop, and obtain financing for CWSRF-eligible projects and to assist each treatment works in achieving compliance with the Clean Water Act.⁶⁰

According to U.S. Environmental Protection Agency guidance, CWSRF-eligible centralized wastewater treatment projects and energy conservation projects include biosolids drying/dewatering and energy conversion equipment.⁶¹

III. Effect of Proposed Changes:

The bill contains whereas clauses that acknowledge the following:

- The Legislature encourages the highest levels of treatment, quality, and use for biosolids, and
- The Legislature encourages the beneficial use of biosolids in a manner that will foster public acceptance, as well as innovative and alternative uses for biosolids.

Section 1 amends s. 403.0673, F.S., to clarify that the method of prioritizing existing wastewater grant allocations remains unchanged.

The bill provides that, subject to the appropriation of funds by the Legislature, the Department of Environmental Protection (DEP) may provide grants throughout this state for projects that convert wastewater residuals to Class A and Class AA biosolids. In allocating such grants, DEP must prioritize projects by considering the cost-effectiveness of the project and the overall environmental benefit of the project.

Section 2 amends s. 403.0855, F.S., to prohibit DEP from authorizing a land application site permit for a Class B biosolid within the subwatershed of a waterbody designated as impaired for either nitrogen or phosphorus or within an adjoining upstream subwatershed containing surface waters that flow to a waterbody designated as impaired for either nitrogen or phosphorus unless the applicant affirmatively demonstrates that the phosphorus and nitrogen in the biosolids will not add to the nutrient load in the impaired subwatershed. The demonstration must be based on achieving a net balance between nutrient imports relative to exports on the permitted land application site. Exports may include only nutrients removed from the subwatershed through products generated on the permitted land application site. Beginning August 1, 2023, and each August 1 thereafter, DEP must publish updated maps designating the subwatersheds of waterbodies protected under this subsection.

The bill provides that new or renewed Class B biosolid land application site permits issued after July 1, 2023, must meet statutory biosolids management requirements by July 1, 2024. All permits for biosolid land application sites must meet the requirements by July 1, 2025.

⁶⁰ EPA, *Learn about the Clean Water State Revolving Fund (CWSRF)*.

⁶¹ EPA, *Overview of Clean Water State Revolving Fund Eligibilities*, 8, 10 (May 2016), available at https://www.epa.gov/sites/default/files/2016-07/documents/overview_of_cwsrf_eligibilities_may_2016.pdf.

Section 3 amends s. 403.1835, F.S., to direct DEP to administer financial assistance so that at least 15 percent of the funding⁶² made available each year under the Clean Water State Revolving Fund is reserved for projects that convert wastewater residuals to Class A and Class AA biosolids during the year such funding is reserved.

Section 4 provides an effective date of July 1, 2023.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

D. State Tax or Fee Increases:

None.

E. Other Constitutional Issues:

None.

V. Fiscal Impact Statement:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

None.

C. Government Sector Impact:

Indeterminate.

VI. Technical Deficiencies:

None.

⁶² The total appropriation for the Clean Water State Revolving Fund for fiscal year 2023-2024 is expected to be \$304,671,849. Fifteen percent of that appropriation would be \$45,700,777.

VII. Related Issues:

None.

VIII. Statutes Affected:

This bill substantially amends sections 403.0673, 403.0855, and 403.1835 of the Florida Statutes:

IX. Additional Information:

A. Committee Substitute – Statement of Changes:

(Summarizing differences between the Committee Substitute and the prior version of the bill.)

None.

B. Amendments:

None.

This Senate Bill Analysis does not reflect the intent or official position of the bill's introducer or the Florida Senate.
