HOUSE OF REPRESENTATIVES STAFF ANALYSIS

BILL #: CS/HB 713 Water Quality Credit Trading
SPONSOR(S): Agriculture & Natural Resources Subcommittee and Pigman
TIED BILLS: None **IDEN./SIM. BILLS:** CS/SB 754

REFERENCE	ACTION	ANALYST	STAFF DIRECTOR or BUDGET/POLICY CHIEF
1) Agriculture & Natural Resources Subcommittee	11 Y, 0 N, As CS	Renner	Blalock
2) Agriculture & Natural Resources Appropriations Subcommittee	12 Y, 0 N	Helpling	Massengale
3) State Affairs Committee			

SUMMARY ANALYSIS

Water quality credit trading (WQCT) is a voluntary, market-based regulatory program aimed at reducing pollution to Florida's impaired rivers, lakes, streams, and estuaries in the most cost-effective manner possible. Trading is based on the economic principle that businesses, industries, wastewater treatment facilities, urban stormwater systems, and agricultural sites that discharge the same pollutants to a waterbody face substantially different costs to control those pollutants. Financial savings accrue to parties that buy trading credits (pollutant reductions) from others for less than the cost of implementing the reductions themselves. Those that sell credits will do so only if the value of the trade is equal to or higher than their investment in the facilities or activities necessary to achieve the pollutant reductions.

In 2008, the Florida Legislature passed HB 547 to create a pilot water quality trading program for the Lower St. Johns River Basin, and authorized the Department of Environmental Protection (DEP) to provide requirements for trading in the basin management action plan (BMAP) established for that waterbody to meet specific total maximum daily loads (TMDLs). The bill also directed the DEP to initiate rulemaking to:

- Establish the process for determining how credits are generated, quantified, and validated;
- Develop a publicly accessible trading registry to track credits, trading activities, and prices;
- Set limitations on the availability and use of credits, including a list of pollutants eligible for trading and adjustment factors to account for uncertainties and site-specific considerations;
- Establish the timing, duration and transferability of credits; and
- Provide mechanisms to assure compliance with trading procedures, including record-keeping, monitoring, reporting, and inspections.

The bill expands statewide the water quality credit trading program currently occurring only in the Lower St. Johns River Basin as a pilot project. The bill also specifies that DEP may authorize water quality credit trading in adopted BMAPs. Participation in water quality credit trading is entirely voluntary. Entities that participate in water quality credit trades must timely report to DEP the prices for credits, how the prices were determined, and any state funding received for the facilities or activities that generated the credits. DEP cannot participate in the establishment of credit prices.

The bill also allows water quality credit trading to not only occur in BMAPs, but to also occur in pollution control programs under local, state, or federal authority.

The bill deletes the obsolete provision directing DEP to submit a report to the Legislature on the status of the trading no later than 24 months after the adoption of the BMAP for the Lower St. Johns River Basin.

The bill also makes numerous stylistic and cross reference changes.

The bill appears to have an insignificant negative fiscal impact on DEP, which can be absorbed by using existing funds. The bill has a potentially positive fiscal impact on businesses, local government and investor-owned utilities, and agricultural operations that participate in a successful WQCT program by reducing the cost of meeting pollution limitations and selling acquired credits.

FULL ANALYSIS

I. SUBSTANTIVE ANALYSIS

A. EFFECT OF PROPOSED CHANGES:

Current Situation

Regulation of Water Pollution

Under section 303 of the federal Clean Water Act (CWA), states are required to adopt water quality standards (WQSs) for their navigable waters, and to review and update those standards at least every three years. These standards must include:

- Designation of a waterbody's beneficial uses, such as water supply, recreation, fish propagation, or navigation;
- Water quality criteria that defines the amounts of pollutants, in either numeric or narrative form, that the waterbody can contain without impairment of the designated beneficial uses; and
- Anti-degradation requirements.[1]

States must submit their WQS to the Environmental Protection Agency (EPA) for review and approval.[2] If the EPA finds that a state's proposal for one or more criterion is inadequate, it must notify the state, which then has 90 days to revise its standards in response to the EPA's concerns.[3] If the state does not do so, then the EPA is required to "promptly" propose a federal standard that will apply to that state. Similarly, if the EPA, independent of any state proposal, determines that a state needs a new or revised standard, and the state fails to act, then the CWA directs the EPA to propose the new or revised standard for that state.[4] If the state proceeds to develop its own standard while the EPA is engaged in the rulemaking process, and the state standard is acceptable to the EPA, then the CWA allows the EPA to approve the state standard and abandon its own effort.[5] In most instances, Florida has adopted an approved WQS and has subsequently been granted the authority to enforce the provisions of the CWA.

The EPA and DEP enforce WQSs through the implementation and enforcement of the National Pollutant Discharge Elimination System (NPDES) permitting program. Every point source that discharges a pollutant into waters of the United States must obtain an NPDES permit establishing the amount of a particular pollutant that an individual point source can discharge into a specific waterbody. The amount of the pollutant that a point source can discharge under an NPDES permit is determined through the establishment of either a technology-based effluent limitation (TBEL) or, if a waterbody fails to meet the applicable WQS through the application of a TBEL, a water quality-based effluent limitation (WQBEL), which is a more stringent standard.

Waterbodies that do not meet the established WQSs are deemed impaired and, pursuant to the CWA, DEP must then establish a total maximum daily load (TMDL) for the waterbody or section of the waterbody that is impaired. In 1999, the Florida Legislature passed the Florida Watershed Restoration Act (WRA),[6] which codified the establishment of TMDLs for pollutants of water bodies as required by the federal CWA. TMDLs establish the amount of each pollutant a water body can receive without violating state WQSs. A TMDL for an impaired waterbody is defined as the sum of the individual waste load allocations for point sources and the load allocations for nonpoint sources and natural background.[7] Waste load allocations are pollutant loads attributable to existing and future point sources, such as discharges from industry and sewage facilities. Load allocations are pollutant loads attributable to existing and future nonpoint sources such as the runoff from farms, forests, and urban areas.

[1] 33 U.S.C. § 1313(c)(2)(A); 40 C.F.R. §§ 131.6, 131.10-12.1.
[2] 33 U.S.C. §1313(c)(2)(A).
[3] 33 U.S.C. §1313(c)(3).
[4] 33 U.S.C. §1313(c)(4).
[5] *Id*.
[6] Section 403.067, F.S.
[7] Ch. 62-302, F.A.C. (Surface Water Quality Standards)

DEP, in some instances, will also establish a basin management action plan (BMAP) as part of the development and implementation of a TMDL for a specific water body. First the BMAP must equitably allocate pollutant reductions to individual basins, as a whole to all basins, or to each identified point source or category of nonpoint sources.[8] Then the BMAP establishes the schedule for implementing projects and activities to meet the pollution reduction allocations, the basis for evaluating the plan's effectiveness and making adaptive changes, and funding strategies. The BMAP development process provides an opportunity for local stakeholders, including affected pollution sources, local government and community leaders, and the general public to collectively determine and share water quality clean-up responsibilities. DEP works with stakeholders to develop effective BMAPs, which then must be adopted by Secretarial order pursuant to s. 403.067(7), F.S.

BMAPs must include milestones for implementation and water quality improvement, and an associated water quality monitoring component sufficient to evaluate whether reasonable progress in pollutant load reductions is being achieved over time. An assessment of progress toward these milestones must be conducted every five years, and revisions to the plan must be made as appropriate.[9]

In some cases, local, state, and federal entities are able to establish their own effective pollution reduction requirements in lieu of a TMDL.[10] The 'pollution control programs' must demonstrate that they can restore the waterbody as effectively as a TMDL, pursuant to s. 403.067(4), F.S. Most pollution reduction requirements are established as TMDLs, although there are a few alternative pollution control programs that have been successfully established.[11]

A nonpoint pollutant source discharger included in a BMAP must demonstrate compliance with the established pollutant reductions by either implementing the appropriate best management practices (BMPs) or by conducting water quality monitoring. A nonpoint source discharger may be subject to enforcement action by DEP or a water management district based upon a failure to implement these responsibilities.[12]

Provisions of a BMAP must be included in subsequent NPDES permits. DEP is prohibited from imposing limits or conditions associated with an adopted TMDL in a NPDES permit until the permit expires, the discharge is modified, or the permit is reopened pursuant to an adopted BMAP.

NPDES permits issued between the time a TMDL is established and a BMAP is adopted contain a compliance schedule allowing time for the BMAP to be developed. Once the BMAP is developed, a permit will be reopened and individual allocations consistent with the BMAP will be established in the permit. The timeframe for this to occur cannot exceed 5 years. NPDES permittees may request an individual allocation during the interim and DEP may include an individual allocation in the permit.

DEP is the lead agency in coordinating the implementation of TMDLs and BMAPs through existing water quality protection programs. Such programs include:

- Permitting and other existing regulatory programs, including WQBELs;
- Non-regulatory and incentive-based programs, including best management practices (BMPs) cost sharing, waste minimization, pollution prevention, agreements established pursuant to s. 403.061(21), F.S.,[13] and public education;
- Other water quality management and restoration activities;
- Public works including capital facilities; and

[8] Section 403.067(7)(a), F.S.
[9] *Id.*
[10] DEP 2013 analysis. On file with staff.
[11] *Id.*
[12] Section 403.067, F.S.
[13] Section 403.061, F.S., grants the DEP the power and the duty to control and prohibit pollution of air and water in accordance with the law and rules adopted and promulgated by it. Furthermore, s. 403.061(21), F.S., grants the DEP to advise, consult, cooperate, and enter into agreements with other state agencies, the federal government, other states, interstate agencies, etc.

- Land acquisition.

For an individual point source, reducing pollutant loads established under the TMDL and WQBEL regulatory program can require costly technological upgrades that an individual regulated entity cannot afford.

Water Quality Credit Trading

A potentially less costly option for meeting the pollution limits established under a TMDL for an impaired waterbody is through the adoption of a water quality credit trading (WQCT) program, which is a voluntary, market-based approach for reducing pollution to Florida's impaired rivers, lakes, streams, and estuaries in the most cost-effective manner possible.

The underlying economic theory is that achieving pollution abatement at the lowest incremental cost at each additional increment reduced is the most cost-effective means to achieve abatement. Trading is based on the fact that businesses, industries, wastewater treatment facilities, urban stormwater systems, and agricultural sites that discharge the same pollutants to a waterbody (basin, watershed or other defined area) may face substantially different costs to control those pollutants. Trading allows pollutant reduction activities to be environmentally valued in the form of "credits" that can then be traded on a local "market" to promote cost-effective water quality improvements.[14] Financial savings accrue to parties that buy trading credits (pollutant reductions) from others for less than the cost of implementing the reductions themselves. Those that sell credits will do so only if the value of the trade is equal to or higher than their investment in the facilities or activities necessary to achieve the pollutant reductions.

WQCT can accelerate cleanup because potentially unaffordable costs for individual dischargers can be reduced and cooperative relationships built through trading agreements that foster shared responsibility and commitment. Trading can also accommodate new growth, including new pollutant loadings from urban stormwater and domestic and industrial wastewater discharges. It offers the possibility for the owners of potential new or increased discharges to purchase credits from existing dischargers, so that overall pollutant loadings to a watershed are not increased and water quality is preserved.[15] The advantages of WQCT in comparison with traditional command and control water pollution regulations can include:

- Allowing individual entities flexibility in choosing pollution-abatement technologies and practices (e.g., flexibility for the farmers to choose which BMPs to implement);
- Providing incentives to innovate within the pollution-abatement sphere; and
- Addressing future growth in the basin while meeting water quality goals.[16]

Current WQCT Program in Florida

In 2008, the Florida Legislature passed HB 547, amending s. 403.067, F.S., to create a pilot water quality trading program for the Lower St. Johns River Basin, and authorized DEP to provide requirements for trading in the BMAP established for that Basin.

Section 403.067(8), F.S., provides the following statutory requirements for establishing a WQCT program in Florida:

- Water quality credit trading must be consistent with federal law and regulation.
- Water quality credit trading must be implemented through permits, including water quality credit trading permits, other authorizations, or other legally binding agreements as established by DEP rule.

[14] DEP report, *The Pilot Water Quality Credit Trading Program for the Lower St. Johns River: A Report to the Governor and Legislature*, October 2010. On file with staff.
[15] *Id.*
[16] *Id.*

- DEP must establish the pollutant load reduction value of water quality credits and is responsible for authorizing their use.
- A person who acquires water quality credits ("buyer") must timely submit to DEP an affidavit, signed by the buyer and the credit generator ("seller"), disclosing the term of acquisition, number of credits, unit credit price paid, and any state funding received for the facilities or activities that generate the credits. DEP cannot participate in the establishment of credit prices.
- Sellers of water quality credits are responsible for achieving the load reductions on which the credits are based and complying with the terms of the DEP authorization and any trading agreements into which they may have entered.
- Buyers of water quality credits are responsible for complying with the terms of the DEP water discharge permit.
- DEP must take appropriate action to address the failure of a credit seller to fulfill its obligations, including, as necessary, deeming the seller's credits invalid if the seller cannot achieve the load reductions on which the credits were based in a reasonable time. If DEP determines duly acquired water quality credits to be invalid, in whole or in part, thereby causing the credit buyer to be unable to timely meet its pollutant reduction obligations, then DEP must issue an order establishing the actions required of the buyer to meet its obligations by alternative means and a reasonable schedule for completing the actions. The invalidation of credits shall not itself constitute a violation of the buyer's water discharge permit.

Section 403.067(9), F.S., directs DEP to establish WQCT rules that provide for the following:

- The process for determining how credits are generated, quantified, and validated;
- A publicly accessible trading registry to track credits, trading activities, and prices;
- Limitations on the availability and use of credits, including a list of pollutants eligible for trading and adjustment factors to account for uncertainties and site-specific considerations;
- The timing, duration, and transferability of credits; and
- Mechanisms to assure compliance with trading procedures, including record-keeping, monitoring, reporting, and inspections.

The pilot program established by DEP pursuant to s. 403.067, F.S., and promulgated in Rule 62-306, F.A.C., contains the following elements:

1. Credits are only generated when a source's pollutant load is reduced below the baseline established for the entity. For a trade involving credits generated by a "nonpoint" source (typically related to stormwater), the pollutant loading must be less than that expected following the implementation of BMPs and any other reductions required in the BMAP.
2. For trades where the seller and buyer discharge to different locations, the amount of credits proposed for trading must be adjusted by location factors to provide reasonable assurance that the trade will not result in localized adverse impacts to the waterbody or water segment.
3. Credits generated by a point source, such as a wastewater facility, must be confirmed by effluent monitoring throughout the life of the trade for the pollutant in question.
4. For trades involving estimated credits generated by nonpoint sources, uncertainty factors are applied and the applicant must provide reasonable assurance that the estimate is scientifically defensible.
5. Credits must be used in the same calendar year in which they are generated.
6. Credits generated cannot be used to offset violations of a discharge permit or to comply with technology-based effluent limits.
7. Water quality credit trades cannot result in an increased nutrient load above the Lower St. Johns River TMDLs.[17]

Section 403.067(10), F.S., directed DEP to submit a report to the Legislature on the status of the trading no later than 24 months after the adoption of the BMAP for the Lower St. Johns River. The report was issued in October 2010 and made certain conclusions and recommendations.

[17] *Id.*

DEP concluded that there was little formal trading done under the pilot program mainly because pre-BMAP trades of pollutant load allocations were incorporated into the BMAP when it was adopted. Another factor was that the EPA's proposed numeric nutrient criteria raised uncertainty about nutrient limits that facilities would have to meet. DEP recommended extending the pilot program for another two years to allow for further evaluation of the EPA's numeric nutrient criteria for fresh and estuarine waters.

Since the report was submitted to the Legislature in 2010, only one trade has occurred within the Lower St. Johns River Basin. According to DEP,[18] the lack of interest in trading is due mainly to an uncertainty in clearly defining credits for trading between the nonpoint and point sources. In addition, because the program only encompassed the Lower St. Johns River, the number of regulated entities, the number of available credits, and thus, the potential to trade was very limited. However, now that some of the regulatory uncertainty surrounding the adoption of numeric nutrient criteria in Florida is beginning to fade, these hindrances to trading under the pilot program may not apply to a statewide WQCT program, especially as it pertains to meeting the new numeric nutrient criteria.

Effect of Proposed Changes

The bill amends s. 403.067, F.S., expanding statewide the water quality credit trading pilot program that currently occurs only in the Lower St. Johns River Basin. The bill specifies that DEP can authorize water quality credit trading in adopted BMAPs. Participation in water quality credit trading is entirely voluntary. Entities that participate in water quality credit trades must timely report to DEP the prices for credits, how the prices were determined, and any state funding received for the facilities or activities that generated the credits. The bill also specifies that DEP may not participate in the establishment of credit prices.

The bill allows water quality credit trading to not only occur in BMAPs, but to also occur in pollution control programs under local, state, or federal authority, as provided in s. 403.067(4), F.S.

The bill deletes the provision directing DEP to submit a report to the Legislature on the status of the trading no later than 24 months after the adoption of the BMAP for the Lower St. Johns River Basin.

The bill makes numerous stylistic and cross reference changes.

B. SECTION DIRECTORY:

Section 1. Reenacts s. 373.4595(1)(n), F.S., relating to water quality credit trading, to incorporate the amendments made to s. 403.067, F.S., in a reference thereto.

Section 2. Amends s. 403.067, F.S., authorizing DEP to implement water quality credit trading in adopted BMAPs on an ongoing basis; authorizing additional water quality protection programs to participate in water quality credit trading; revising provisions related to rulemaking; eliminating a requirement that water quality credit trading be limited to the Lower St. Johns River Basin as a pilot project; deleting a required report.

Section 3. Reenacts s. 403.088(2)(e), F.S., relating to water pollution operation permits, to incorporate the amendments made to s. 403.067, F.S., in a reference thereto.

Section 4. Provides an effective date of July 1, 2013.

II. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT

A. FISCAL IMPACT ON STATE GOVERNMENT:

1. Revenues:

[18] DEP 2013 agency analysis.

None.

2. Expenditures:

The bill appears to have an insignificant negative fiscal impact on DEP, as a result of amending Rule 62-306, F.A.C., to reflect a statewide water quality credit trading program; establishing an expanded trading registry; and an increase in operation costs relative to the number of proposals received and the work involved in reviewing and tracking them. The fiscal impact can be absorbed by using existing funds.

B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

1. Revenues:

The bill has a potentially positive fiscal impact on local governments that participate in successful water quality credit trading programs.

2. Expenditures:

None.

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

The bill has a potentially positive fiscal impact on utilities if the cost of meeting WQSs is reduced due to water quality credit trading. The private sector may also benefit from the development and implementation of pollution reduction control technologies that could result due to the incentives that a water quality credit trading can provide. Some agricultural operations in particular may be able to acquire and sell credits for establishing BMPs that reduce agricultural runoff and thus the amount of nutrients that enter a particular waterbody.

D. FISCAL COMMENTS:

None.

III. COMMENTS

A. CONSTITUTIONAL ISSUES:

1. Applicability of Municipality/County Mandates Provision:

Not applicable. This bill does not appear to affect county or municipal governments

2. Other:

None.

B. RULE-MAKING AUTHORITY:

DEP will have to amend Rule 62-306, F.A.C. to implement water quality credit trading statewide, as opposed to just the Lower St. Johns River Basin as part of a pilot project.

C. DRAFTING ISSUES OR OTHER COMMENTS:

On line 284 of the bill, as drafted, the word ‘credit’ has inadvertently been omitted.

IV. AMENDMENTS/ COMMITTEE SUBSTITUTE CHANGES

On March 7, 2013, the Agriculture & Natural Resources Subcommittee amended and reported HB 713 favorably as a committee substitute (CS). The CS:

- Specifies that dischargers cannot be required to implement water quality credit trading in order to meet required pollutant reduction.
- Specifies that participation in water quality credit trading is voluntary.