HOUSE OF REPRESENTATIVES STAFF ANALYSIS

BILL #: CS/HB 351 Contaminated Sites
SPONSOR(S): State Affairs Committee and Drake
TIED BILLS: **IDEN./SIM. BILLS:** CS/SB 92

REFERENCE	ACTION	ANALYST	STAFF DIRECTOR or BUDGET/POLICY CHIEF
1) Agriculture & Natural Resources Subcommittee	13 Y, 0 N	Gregory	Harrington
2) Agriculture & Natural Resources Appropriations Subcommittee	12 Y, 0 N	Helpling	Massengale
3) State Affairs Committee	16 Y, 0 N, As CS	Gregory	Camechis

SUMMARY ANALYSIS

Contaminated sites are any contiguous land, sediment, surface water, or groundwater areas that contain contaminants that may be harmful to human health or the environment. Brownfield sites are generally abandoned, idled, or underused industrial and commercial properties where expansion or redevelopment is complicated by actual or perceived environmental contamination.

"Global Risk-Based Corrective Action" or "Global RBCA" requires risk-based corrective action (RBCA) to be applied to all contaminated sites in Florida, except if program specific cleanup requirements apply. RBCA is a process that bases remedial action for contaminated sites on potential human health effects resulting from exposure to chemical compounds. RBCA utilizes site-specific data, modeling results, risk assessment studies, institutional controls, engineering controls, or any combination thereof to provide for a flexible site-specific cleanup process that reflects the intended use of the property following cleanup, while maintaining adequate protection of human health, safety, and the environment. Persons responsible for site rehabilitation must follow the Department of Environmental Protection's (DEP's) RBCA procedure when rehabilitating a contaminated site.

This bill amends the Global RBCA and brownfield program specific cleanup statutes to:

- Add a definition of "background concentration" to include concentrations of contaminants that are naturally occurring or the result of anthropogenic (human) impacts unrelated to the discharge of pollutants or hazardous substances at the contaminated site undergoing rehabilitation. Currently, DEP may not require site rehabilitation to achieve a contamination target level (CTL) for any contaminant more stringent than the naturally occurring background contamination;
- Require DEP rules to include protocols for long-term natural attenuation for site rehabilitation;
- Require DEP to consider the interactive effects of contaminants, including additives, synergistic, and antagonistic effects when determining what constitutes a rehabilitation program task;
- Create an exception when applying state water quality standards if it is shown that the contaminants do not cause or contribute to the exceedance of applicable surface water quality criteria;
- Allow the use of risk assessment modeling and probabilistic risk assessment to create site-specific alternative CTLs; and
- Allow the use of alternative CTLs without institutional controls if certain conditions exist.

The bill appears to have an insignificant negative fiscal impact on the state, which can be absorbed within existing resources; an indeterminate positive fiscal impact on the private sector; and no fiscal impact on local governments. *See* Fiscal Analysis & Economic Impact Statement for more detail.

FULL ANALYSIS

I. SUBSTANTIVE ANALYSIS

A. EFFECT OF PROPOSED CHANGES:

Present Situation

Contaminated sites are any contiguous land, sediment, surface water, or groundwater areas that contain contaminants that may be harmful to human health or the environment.[1] Prior to 2003, Florida used risk based corrective action (RBCA) (pronounced "Rebecca") at contaminated sites under the following Department of Environmental Protection (DEP) programs: the Petroleum Restoration Program, the Brownfield Program, and the Drycleaning Facility Restoration Program (collectively "program sites").[2] The program sites made up approximately 90 percent of all of the contaminated sites in Florida.[3]

RBCA is a process that bases remedial action for contaminated sites on potential human health effects resulting from exposure to chemical compounds.[4] RBCA utilizes site-specific data, modeling results, risk assessment studies, institutional controls (such as deed restrictions limiting future use to industrial), engineering controls (such as placing an impervious surface over contaminated soils to prevent human exposure), or any combination thereof.[5]

DEP managed non-program sites under the Contamination Assessment Plan/Remedial Action Plan process (CAP/RAP) set forth in the Model Corrective Action for Contaminated Site Cases guidance document.[6] These sites were required to be remediated to default cleanup target levels (CTLs).[7] A CTL is the concentration of a contaminant identified by an applicable analytical test method, in the medium of concern (e.g., soil or water), at which a site rehabilitation program is deemed complete.[8] DEP developed the CTLs based on human health and aesthetic factors.[9] Aesthetic considerations include altered taste, odor, or color of the water.[10] This approach offered little flexibility to provide site-specific remediation strategies, was inefficient,[11] and created a significant expense.[12]

Global RBCA

In 2003, the Legislature created s. 376.30701, F.S., commonly referred to as "Global Risk-Based Corrective Action" or "Global RBCA," which required RBCA to be applied to all contaminated sites in Florida to meet CTLs.[13] Chapter 62-777, F.A.C., provides the default CTLs and a methodology for RBCA.[14]

Global RBCA does not apply to contaminated sites subject to the risk-based corrective action cleanup criteria established for the petroleum, brownfields, and drycleaning programs.[15] These programs

[1] Section 376.301(10), F.S.
[2] Charles F. Mills III, *Global RBCA: Its Implementation, Foundation in Risk-Based Theory, and Implications*, 22 J. Land Use & Envtl. L. 101, 116 (Fall 2006).
[3] Id. at 117.
[4] Id. at 102.
[5] Ralph A. DeMeo, Michael P. Petrovich, Christopher M. Teal, *Risk-Based Corrective Action In Florida: How Is It Working?*, the Florida Bar Journal, January 2015, at 47.
[6] Mills, *supra* note 2, at 118. In 2005, the Fifth District Court of Appeals found this guidance document to be an unpromulgated rule, and therefore invalid. Kerper v. Department of Environmental Protection, 894 So.2d 1006 (Fla. 5th DCA 2005).
[7] DeMeo, *supra* note 5, at 47.
[8] Section 376.301(7), F.S.
[9] DEP, *Technical Report: Development of Cleanup Target Levels (CTLs) For Chapter 62-777, F.A.C.*, at 7, incorporated by reference in rule 62-777.100, F.A.C.
[10] Id.
[11] DeMeo, *supra* note 5, at 47.
[12] Mills, *supra* note 2, at 133.
[13] Id. at 102.
[14] Id. at 118.
[15] Section 376.30701(1)(b), F.S.

provide financial and regulatory incentives to facilitate cleanup, and are subject to RBCA criteria established for the specific program.[16]

In 2005, DEP adopted rules to implement Global RBCA.[17] The goal was to provide for a flexible site-specific cleanup process that reflected the intended use of the property following cleanup, while maintaining adequate protection of human health, safety, and the environment.[18] In 2013, DEP consolidated the contamination site cleanup criteria for petroleum contamination,[19] drycleaning solvents,[20] brownfield cleanup,[21] and all other contaminated sites[22] into the Global RBCA rule chapter.[23]

The ultimate goal for any contaminated site is for DEP to issue it a "No Further Action" (NFA) order. Upon discovery of a contaminant, DEP must be notified.[24] The person responsible for site rehabilitation (responsible party) must commence site assessment within 60 days of discovery of a discharge to determine the extent of contamination and facilitate selection of an appropriate remediation strategy.[25] This includes establishing any background concentrations of contaminations.[26] Background concentrations are concentrations of contaminants that are naturally occurring in the groundwater, surface water, soil, or sediment in the vicinity of the site.[27] DEP cannot require site rehabilitation to achieve a CTL for any contaminant more stringent than the naturally occurring background contamination.[28]

Once a responsible party completes a site assessment, it has three Risk Management Options (RMOs) available to perform site rehabilitation to achieve a NFA order. Under the RMO options, the responsible party must either rehabilitate the site to the default CTLs established in ch. 62-777, F.A.C., or to the alternative CTLs established through a risk assessment. Responsible parties may choose to create their own alternative CTLs when present and future use of the site and site exposure characteristics differ greatly from those utilized to calculate the default CTLs such that the default CTLs are overly conservative or not conservative enough.[29]

Under RMO I, DEP will issue a NFA order without institutional controls or without institutional and engineering controls if the exposure point concentration (EPC) for all detected chemicals do not exceed the less stringent of their corresponding default residential CTLs or their background concentration.[30] Under RMO II, DEP will grant a NFA order, subject to institutional controls, if the EPCs for all detected chemicals do not exceed default commercial/industrial CTLs or alternative CTLs adjusted for site-specific geologic or hydrogeologic conditions.[31] Under RMO III, DEP will grant a NFA order, subject to institutional controls, if the EPCs for all detected chemicals do not exceed alternative CTLs adjusted for site-specific exposure scenarios determined in the exposure assessment.[32]

Under each RMO, responsible parties may use several methods to rehabilitate the site to achieve a NFA order. Section 376.30701(2), F.S., requires DEP's rule to include protocols for natural attenuation as a method for site rehabilitation. Natural attenuation allows natural processes to contain the spread of contamination and reduce the concentrations of contaminants in contaminated groundwater and

[16] *See* ss. 376.3071, 376.7078, and 376.83, F.S.
[17] DeMeo, *supra* note 5, at 47.
[18] Id.
[19] Former ch. 62-770, F.A.C.
[20] Former ch. 62-782, F.A.C.
[21] Former ch. 62-785, F.A.C.
[22] Chapter 62-780, F.A.C.
[23] Notice of Rule Development, 39 Fla. Admin. R. 105 (May 30, 2013).
[24] Rule 62-780.210, F.A.C.
[25] Rule 62-780.600, F.A.C.
[26] Rule 62-780.600(3)(d), F.A.C.
[27] Rule 62-780.200(3), F.A.C.
[28] Section 376.30701(2)(g) and (i), F.S.
[29] DEP, *supra* note 9, at 43-44.
[30] Mills, *supra* note 2, at 125; rule 62-780.680(1), F.A.C.
[31] Id.; rule 62-780.680(2), F.A.C.
[32] Id.; rule 62-780.680(3), F.A.C.

soil.[33] Natural attenuation processes may include sorption, biodegradation, chemical reactions with subsurface materials, diffusion, dispersion, and volatilization.[34] This practice may be used depending on individual site characteristics, current and projected use of the land and groundwater, the exposed population, the location of the contamination plume, the degree and extent of contamination, the rate of migration of the plume, the apparent or potential rate of degradation of contaminants through natural attenuation, and the potential for further migration in relation to the site's property boundary.[35]

Natural attenuation monitoring is allowable if:

- Free product is not present or free product removal is not feasible;
- Contaminated soil is not present in the unsaturated zone;
- Contaminations present in the groundwater above background concentrations or applicable CTLs are not migrating beyond the temporary point of compliance or vertically;
- The characteristics of the contaminant and its transformation products are conducive to natural attenuation; and
- One of the following is met:
    - The contaminated site is anticipated to meet NFA criteria in 5 years or less as a result of natural attenuation, the background concentrations or applicable CTLs are not exceeded at the temporary point of compliance, and contaminant concentrations do not meet certain criteria; or
    - The appropriateness of natural attenuation is demonstrated by:
        - A technical evaluation of the groundwater and soil;
        - A scientific evaluation of the contamination plume migration, an estimate of the annual reduction in contaminant concentrations, and the estimated time to meet NFA; and
        - A life-cycle cost analysis of remedial alternatives.[36]

Brownfield Redevelopment Act

A brownfield is real property, generally abandoned, idled, or underused industrial and commercial property, where expansion, redevelopment, or reuse may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.[37] In 1995, the Environmental Protection Agency (EPA) created the Brownfields Program to manage contaminated property through site remediation and redevelopment.[38] EPA's Brownfields Program provides grants and technical assistance to communities, states, tribes, and other stakeholders, giving them the resources they need to prevent, assess, safely clean up, and sustainably reuse brownfields.[39]

In 1997, the Legislature enacted the Brownfields Redevelopment Act (Act).[40] The Act provides financial and regulatory incentives to encourage voluntary remediation and redevelopment of brownfield sites to improve public health and reduce environmental hazards.[41] The Act provides liability protection for program participants who have not caused or contributed to the contamination of a brownfield site on or after July 1, 1997.[42] Since inception of the Act, 78 contaminated sites have been cleaned up, more than 75,000 confirmed and projected direct

[33] Section 376.301(24), F.S.
[34] Id.
[35] Rule 62-780.690(1), F.A.C.
[36] Id.
[37] Section 288.107(1)(b), F.S.; EPA, *Brownfield Overview and Definition*, http://www2.epa.gov/brownfields/brownfield-overview-and-definition (last visited November 6, 2015).
[38] EPA, *Brownfield Overview and Definition*, http://www2.epa.gov/brownfields/brownfield-overview-and-definition (last visited November 6, 2015).
[39] EPA, *Brownfields*, http://www2.epa.gov/brownfields (last visited November 6, 2015).
[40] Chapter 97-173, Laws of Florida.
[41] DEP, Florida Brownfields Redevelopment Act – Annual Report p. 4, http://www.dep.state.fl.us/waste/quick_topics/publications/wc/brownfields/AnnualReport/2015/2014-15_FDEP_Annual.pdf (last visited November 6, 2015).
[42] Section 376.82, F.S.

and indirect jobs have been created, and $2.7 billion in capital investment is projected in designated brownfield areas.[43]

Effect of Proposed Changes

This bill makes several revisions to the Global RBCA and Brownfield program specific cleanup statutes.

The bill amends ss. 376.301 and 376.79, F.S., to add a definition for "background concentration." This definition includes concentrations of contaminants that are naturally occurring or the result of anthropogenic (human) impacts unrelated to the discharge of pollutants or hazardous substances at the contaminated site undergoing rehabilitation. The bill also makes conforming changes to remove references to "naturally occurring" in front of "background concentration."

Currently, DEP may not require a responsible party performing site rehabilitation to achieve a CTL for any contaminant more stringent than the background contamination. DEP's rule only includes naturally occurring concentrations of contaminants in its definition of "background concentration." Under the proposed change, human-created contamination may be treated as background contamination as well as naturally occurring contaminants. The change is similar to the EPA's policy for addressing background concentrations. In certain situations, the EPA will not require rehabilitation below naturally occurring or anthropogenic background concentrations.[44] The EPA guidance requires that the anthropogenic background contamination be unrelated to the release of hazardous substances at the contaminated cite.[45] Under the proposed change, responsible parties would only be required to rehabilitate their contaminated sites for the discharge of pollutants or hazardous substances at the contaminated site undergoing rehabilitation.

The bill defines "long-term natural attenuation" to mean natural attenuation approved by DEP as a site rehabilitation program task that lasts more than five years. The bill also amends subsections 376.30701(2) and 376.81(1), F.S., to require DEP's Global RBCA rules to include protocols for long-term natural attenuation.[46]

The bill amends paragraphs 376.30701(2)(e) and 376.81(1)(e), F.S., to require DEP to consider the interactive effects of contaminants, including additive, synergistic, and antagonistic effects when determining what constitutes a rehabilitation program task.[47]

The bill amends subparagraphs 376.30701(2)(g)2. and 376.81(1)(g)2., F.S., to create an exception when applying state water quality standards in determining what constitutes a rehabilitation program task. Currently, the statute requires that when surface waters are exposed to contaminated groundwater, the more protective groundwater or surface water standard CTL must be applied. The bill waives this requirement when it has been demonstrated that contaminants do not cause or contribute to the exceedance of the applicable surface water criteria.

The bill amends subparagraphs 376.30701(2)(g)3., 376.30701(2)(i)3., 376.81(1)(g)3., and 376.81(1)(i)3., F.S., to allow the use of risk assessment modeling and probabilistic risk assessment (PRA) to create site-specific alternative CTLs. PRA is a risk assessment that yields a probability distribution for risk, generally by assigning a probability distribution to represent variability or uncertainty

[43] DEP, *supra* note 41, at 2.
[44] *See* EPA, *Transmittal of Policy Statement: "Role of Background in CERCLA Cleanup Program" OSWER 9285.6-07P* (May 2002), available at http://rais.ornl.gov/documents/bkgpol_jan01.pdf (last visited November 5, 2015); EPA, *Guidance for Comparing Background and Chemical Concentrations in Soil for CERCLA Sites OSWER 9285.7-41* (September 2002), available at https://dec.alaska.gov/spar/csp/guidance_forms/docs/background.pdf (last visited November 5, 2015).
[45] Id.
[46] Rule 62-780.690, F.A.C., limits natural attenuation to a five-year period. However, the rule permits natural attenuation for a longer period if the appropriateness of natural attenuation is demonstrated through technical and scientific evaluation.
[47] Rule 62-780.650(1)(c)3., F.A.C., allows this methodology when creating a risk characterization as part of a risk assessment.

in one or more inputs to the risk equation.[48] This method is different from the point estimate risk assessment for single values because it uses multiple variables.[49] The EPA uses this new method of risk assessment when evaluating risk at contaminated sites it regulates.[50]

The bill also amends subparagraph 376.30701(2)(g)3., F.S., to allow the use of alternative CTLs without institutional controls if:

- The only CTLs exceeded are the groundwater CTLs derived from nuisance, organoleptic,[51] or aesthetic considerations;
- Concentrations of all contaminants meet the state water quality standards or the minimum criteria, based on the protection of human health, public safety, and the environment;
- All of the established groundwater CTLs for the contaminated site are met at the property boundary;
- The responsible party demonstrated that the contaminants will not migrate beyond the property boundary at concentrations that exceed the groundwater CTLs established for the contaminated site;
- The property has access to and is using an offsite water supply, and an unplugged private well is not used for domestic purposes; and
- The property owner does not object to the NFA proposal to DEP or the local pollution control program.

A brownfield contaminated site may already use alternative CTLs without institutional controls if they meet the criteria above.[52]

The bill amends paragraph 376.30701(1)(b), F.S., to exclude nonprogram petroleum-contaminated sites from the RBCA procedures and requirements in s. 376.30701, F.S. The responsible party for such contaminated sites must follow the procedures and requirements in s. 376.3071, F.S., unless the responsible party requests to follow the procedures and requirements in s. 376.30701, F.S.

Lastly, the bill amends ss. 196.1995(3), 287.0595(1)(a), and 288.1175(5)(c), F.S., to correct cross references.

B. SECTION DIRECTORY:

Section 1. Amending s. 376.301, F.S., relating to definitions used in ss. 376.30-376.317, 376.70, and 376.75, F.S.

Section 2. Amending s. 376.30701, F.S., relating to application of RBCA principles to contaminated sites.

Section 3. Amending s. 376.79, F.S., relating to brownfields redevelopment definitions.

Section 4. Amending s. 376.81, F.S., relating to brownfield site and brownfield areas contamination cleanup criteria.

Section 5. Amending s. 196.1195, F.S., correcting a cross reference.

Section 6. Amending s. 287.0595, F.S., correcting a cross reference.

Section 7. Amending s. 288.1175, F.S., correcting a cross reference.

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[48] EPA, *Risk Assessment Guidance for Superfund: Volume III – Part A, Process for Conducting Probabilistic Risk Assessment at 1-3* (December 2001) available at http://www2.epa.gov/risk/risk-assessment-guidance-superfund-rags-volume-iii-part (last visited November 5, 2015).
[49] Id. at 1-7.
[50] *See* Id. Rule 62-780.650(3), F.A.C., allows the use of PRA to perform risk assessment when establishing alternative CTLs.
[51] "Organoleptic" means pertaining to, or perceived by, a sensory organ (i.e., color, taste, or odor). Rule 62-780.200(28), F.A.C.
[52] Section 376.81(1)(g)3., F.S.

Section 8. Providing an effective date of July 1, 2016.

II. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT

A. FISCAL IMPACT ON STATE GOVERNMENT:

1. Revenues:

None.

2. Expenditures:

The bill appears to have an insignificant negative fiscal impact on DEP because the department will likely need to revise their rules as a result of the changes in the bill. The impact can be absorbed by existing agency resources.

B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

1. Revenues:

None.

2. Expenditures:

None.

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

The bill will likely have an indeterminate positive economic impact on persons or entities that must rehabilitate a contaminated site. The amounts and types of contaminates, as well as the underlying geology, vary at each site resulting in a wide range of costs associated with site rehabilitation. However, property owners will no longer be required to rehabilitate a site for background concentrations caused by human activities unrelated to the discharge of pollutants or hazardous substances at the contaminated site undergoing rehabilitation. Further, these property owners will not be required to use institutional controls when an alternative CTL is used for site remediation in certain situations. Therefore, there will likely be a reduced cost associated with site cleanup.

D. FISCAL COMMENTS:

None.

III. COMMENTS

A. CONSTITUTIONAL ISSUES:

1. Applicability of Municipality/County Mandates Provision:

Not Applicable. The bill does not appear to affect county or municipal governments.

2. Other:

None.

B. RULE-MAKING AUTHORITY:

DEP has sufficient rulemaking authority to amend ch. 62-780, F.A.C., to conform to changes made in the bill.

C. DRAFTING ISSUES OR OTHER COMMENTS:

Other Comments: Applicability

The changes in the bill primarily apply to waste cleanup sites and brownfield cleanup sites. The contaminated site cleanup criteria for petroleum contamination sites and drycleaning contamination sites are found in subsections 376.3071(5) and 376.3078(4), F.S., respectively. Thus, subsections 376.3071(5) and 376.3078(4), F.S., may need to be amended to apply the new criteria to all contaminated sites in Florida.

IV. AMENDMENTS/ COMMITTEE SUBSTITUTE CHANGES

On January 21, 2016, the State Affairs Committee adopted an amendment and reported the bill favorably as a committee substitute. The amendment excludes nonprogram petroleum-contaminated sites from the RBCA procedures and requirements in s. 376.30701, F.S. The responsible party for such contaminated sites must follow the procedures and requirements in s. 376.3071, F.S., unless the responsible party requests to follow the procedures and requirements in s. 376.30701, F.S.