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 Judiciary

BILL:	CS/SB 832
INTRODUCER:	Judiciary Committee and Senator Burgess
SUBJECT:	Former Phosphate Mining Lands
DATE:	March 12, 2025 REVISED:

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Collazo	Cibula	JU	**Fav/CS**
2.			EN	
3.			RC	

Please see Section IX. for Additional Information:

COMMITTEE SUBSTITUTE - Substantial Changes

I. Summary:

CS/SB 832 establishes a defense from strict liability in lawsuits brought by the Department of Environmental Protection or others for a cause of action based on a natural geological substance on the site of a former phosphate mine.

For a defendant to be exempt from strict liability under the defense created by the bill, the defendant must prove that:

- A notice identifying the property as a former phosphate mine has been recorded within the county where the property is located.
- The Department of Health has conducted a gamma radiation survey of the land parcel at the request of a landowner.

The bill includes findings by the Legislature that phosphate mining is an essential agricultural activity that is necessary for the food security of the nation and this state, that formerly mined lands are a valuable resource, and that the highest and best use of formerly mined lands is in the state's interests.

For any lawsuit based on strict liability, negligence, or similar conduct related to an alleged discharge of hazardous substances or condition of pollution related to phosphate mining, the bill requires the plaintiff to include a radiation survey meeting certain requirements with the complaint.

The bill takes effect July 1, 2025.

II. Present Situation:

Phosphate Mining

Phosphate rock contains the mineral phosphorus, an ingredient used in some fertilizers to help plants grow strong roots.[1] Phosphate rock contains small amounts of naturally-occurring radioactive[2] elements called radionuclides. Uranium and radium are two kinds of radionuclides.[3] The natural breakdown of uranium and radium results in radon, which is a radioactive gas that can move through the ground and accumulate in buildings over time.[4]

Prior to mining for phosphate, mining operators must first prepare the site by obtaining certain permits and surveying and clearing the land.[5] The phosphate is mined by excavating the top 15 to 30 feet of earth to remove the phosphate rock.[6]

The phosphate rock is removed with clay and sand that is then dumped into a pit to create a slurry; the slurry is then piped to a beneficiation plant where the phosphate is separated from the sand and clay. After undergoing the beneficiation process, the clay is pumped through pipelines into large impoundment areas, known as clay settling areas, where it is stored indefinitely. The sand, which may include residual concentrations of radionuclides, is pumped through pipelines back to the mined area and used in reclamation.[7]

When processing phosphate rock to make fertilizer, the phosphorous is removed by dissolving the rock in an acidic solution.[8] The solid waste that remains is called phosphogypsum.[9] To limit the public's exposure to radon, which is created as a result of radium decay of phosphogypsum, the phosphogypsum is piled into stacks on private property located away from the public.[10]

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[1] U.S. Environmental Protection Agency (EPA), *Radioactive Material from Fertilizer Production*, https://www.epa.gov/radtown/radioactive-material-fertilizer-production (last visited Mar. 3, 2025) [hereinafter "*Radioactive Material from Fertilizer Production*"].

[2] These elements emit radiation at a specific rate that is measured in terms of a half-life. A half-life is the time required for half of the radioactive atoms present to decay. This process can take seconds or millions of years, depending on the radionuclide. EPA, *Radionuclides*, https://www.epa.gov/radiation/radionuclides (last visited Mar. 3, 2025).

[3] *Id.*

[4] EPA, *Radionuclide Basics: Radon*, https://www.epa.gov/radiation/radionuclide-basics-radon (last visited Mar. 3, 2025).

[5] Department of Environmental Protection (DEP), *Phosphate*, https://floridadep.gov/water/mining-mitigation/content/phosphate (last visited Mar. 3, 2025) [hereinafter "*Phosphate*"].

[6] *Id.*

[7] *Id.;* Department of Health (DOH), *Environmental Radiation Programs*, https://www.floridahealth.gov/environmental-health/radiation-control/envrad/index.html (last visited Mar. 3, 2025) [hereinafter *"Environmental Radiation Programs*"]. According to DOH, Florida's phosphate deposits contain varying concentrations of uranium and radium. "Although generally the radiation dose received from these concentrations is insignificant, the dose can become significant if the concentration increases through mining the ore…. To monitor this situation, the department takes soil, air, and water samples from the land both before and after mining occurs and measures the radiation levels."

[8] *Radioactive Material from Fertilizer Production*, *supra* note 1.

[9] EPA, *Phosphogypsum*, https://www.epa.gov/radiation/phosphogypsum (last visited Mar. 3, 2025) [hereinafter "*Phosphogypsum*"].

[10] *Id.*; *Radioactive Material from Fertilizer Production*, *supra* note 1.

Phosphate Mines in Florida

Phosphate mining is the fifth largest mining industry in the U.S. in terms of the amount of material mined.[11] Florida is the largest known U.S. source of phosphates, accounting for more than 60 percent of U.S. production.[12] Within Florida, phosphate mining primarily occurs in an area known as Bone Valley. This area consists of approximately 1.3 million acres within Hardee, Hillsborough, Manatee, and Polk counties.[13]

There are 28 phosphate mines in Florida, of which 11 mines are currently active and 10 mines are 100 percent reclaimed and released from reclamation obligations.[14] The remaining mines are either not started or are shut down. Phosphate mines typically range in size from approximately 5,000 to 100,000 acres.[15] Approximately 25 to 30 percent of these lands are wetlands or other surface waters.[16]

Reclamation

The Legislature has found that mining phosphate serves as an important economic interest for the state, but also recognizes that it is a temporary land use.[17] As such, all lands mined after July 1, 1975, are required to be reclaimed after mining is completed at a site.[18] The Department of Environmental Protection is responsible for creating and enforcing rules regarding phosphate mining, including phosphate mine reclamation.[19]

The process of reclamation begins with an applicant submitting a conceptual plan[20] application for reclamation at least 6 months prior to beginning site preparation[21] or mining operations,[22] whichever occurs first.[23] To be approved, a conceptual plan has to meet certain safety, water quality, flooding and draining, waste disposal, and other criteria.[24] Reclamation and restoration of mining lands must be completed within 2 years of the actual completion of mining operations.[25] Each year on March 1, after the approval of a conceptual reclamation plan, each operator is required to submit an annual mining and reclamation report describing the mining and

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[11] *Radioactive Material from Fertilizer Production*, *supra* note 1.
[12] U.S. Geological Survey, *LCMAP Assessment: Phosphate Mining in Florida*, https://geonarrative.usgs.gov/lcmap-assessment-phosphate-mining-florida/ (last visited Mar. 3, 2025).
[13] *Phosphate*, *supra* note 5.
[14] *Id*.
[15] *Id*.
[16] *Id*.
[17] Section 378.202(1), F.S.
[18] Section 378.204, F.S. These lands are referred to as mandatory land, whereas lands mined prior to July 1, 1975, were exempt from reclaim regulations and are called nonmandatory land. *See id.*
[19] Section 378.205(2), F.S.
[20] "Conceptual plan" means a graphic and written description of general activities to be undertaken across the whole mine to comply with the reclamation standards. Fla. Admin. Code R. 62C-16.0021(5).
[21] "Site preparation" means those physical activities involving clearing or modification of the land surface conducted before initiating mining or mining operations, excluding prospecting, or agricultural practices or agricultural activities that are not initiated to directly serve future mining operations. Fla. Admin. Code R. 62C-16.0021(20).
[22] "Mining operation" means those physical activities other than prospecting and site preparation which are necessary for extraction, waste disposal, storage, or dam maintenance prior to abandonment. Fla. Admin. Code R. 62C-16.0021(10).
[23] Fla. Admin. Code R. 62C-16.0032(2)(a).
[24] Fla. Admin. Code R. 62C-16.0051.
[25] Section 378.209(1), F.S.; Fla. Admin. Code R. 62C-16.0051(12)(b)4.

reclamation activities for the previous calendar year and the proposed mining and reclamation for the current year.[26]

During the process of reclamation, credentialed representatives of the department are authorized to enter lands for the purpose of inspecting them to ensure compliance with reclamation regulations.[27] Once an operator of a phosphate mine has completed its reclamation and restoration requirements within a reclamation parcel, it may request a release of the reclamation parcel in writing.[28] Within 90 days after receiving a written request for release, the department will do a final inspection of the land. If the department does not find that all the reclamation and restoration requirements have been met, it will notify the operator of the deficiencies that must be corrected.[29] When the department approves of the reclamation and restoration of a parcel, an operator is released from its reclamation and tax obligations for the phosphate mining parcels.[30]

Radiation Surveys

Radon that naturally occurs in soil is generally not a health concern, however, exposure to radon at higher levels and over prolonged periods of time can cause a serious hazard to human health by increasing the risk of developing lung cancer.[31] The Department of Health takes samples from the soil, air, and water from phosphate mining parcels before mining begins and after reclamation has been completed to monitor the radioactivity of phosphate mining sites.[32] These samples include gamma radiation exposure measurements, soil radon emanation determinations, soil radium determinations, air monitoring, and surface and ground water monitoring of areas that are potentially impacted by mining activities.[33] The department requires a mining company to pay fees for such monitoring.[34]

Radiation Measurement Specialists

The Department of Health requires any person who tests or mitigates the presence of radon for a fee to be certified by the department.[35] Additionally, the American Board of Health Physics and the National Registry of Radiation Protection Technologists have certification programs for specialists engaging in radiation measurements.

A health physicist who is certified by the board must do the following to become certified:

- Obtain a bachelor's or graduate degree from an accredited college or university in physical science, engineering, or biological science.
- Complete at least six years of responsible professional experience in health physics, with three years of that being applied health physics. A degree may be substituted for two years of experience.

[26] Fla. Admin. Code R. 62C-16.0091(1).
[27] Fla. Admin. Code R. 62C-16.0067(1).
[28] Fla. Admin. Code R. 62C-16.0068(1).
[29] Fla. Admin. Code R. 62C-16.0068(3).
[30] Fla. Admin. Code R. 62C-16.0068(3)(b).
[31] *Phosphogypsum*, *supra* note 9.
[32] *Environmental Radiation Programs*, *supra* note 7; Fla. Admin. Code R. 64E-5.1002.
[33] Fla. Admin. Code R. 64E-5.1002.
[34] Fla. Admin. Code R. 64E-5.1003. Gamma radiation exposure measurements are made at the rate of one per acre. *Id.*
[35] Fla. Admin. Code R. 64E-5.1203(1).

- Submit a list of professional references.
- Submit a written report demonstrating that the candidate has produced professional level work in health physics.
- Pass a two-part exam.[36]

A radiation protection technologist who is certified by the registry must do the following to become certified:

- Have a high school diploma or equivalent.
- Be at least 21 years old at the time of applying.
- Submit evidence of operational abilities as a Radiation Protection Technologist, showing at least five years of experience. Experience can be substituted for training or formal education.
- Pass an examination.[37]

Legal Liability Standards

Strict Liability

Strict liability is a legal concept in civil and criminal actions that holds a defendant liable for committing an action, regardless of his or her intent or mental state.[38] The plaintiff in a civil action where strict liability applies does not have to prove the defendant was negligent in order to prevail in the action.

Negligence

Tortious conduct, or torts, are typically divided into two categories: intentional torts or unintentional acts known as negligence. Negligence is the failure to behave with the level of care that a reasonable person would have exercised under the same circumstances.[39] To prevail in a negligence lawsuit, the party seeking the remedy must prove four elements: a legal duty was owed by the defendant to the plaintiff; the defendant breached that duty; the plaintiff's injury was caused by the defendant's breach; and damages resulted from that injury.[40]

Water Quality Assurance Act

In 1983, the Legislature passed the Water Quality Assurance Act[41] to address pollution in surface and ground waters across the state.[42] To ensure the preservation of the state's water resources, the Act prohibits discharges, pollutants, or hazardous substances into or upon the surface or ground

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[36] American Board of Health Physics, *Prospectus for the American Board of Health Physics*, 4-6 (Jun. 2024), available at https://www.aahp-abhp.org/wp-content/uploads/2024/10/Prospectus-for-the-ABHP-June-2024.pdf.
[37] National Registry of Radiation Protection Technologists, *Exam Requirements, Fees and Schedules*, https://www.nrrpt.org/index.cfm/m/7/ (last visited Mar. 3, 2025).
[38] Cornell Law School, *Strict Liability*, https://www.law.cornell.edu/wex/strict_liability (last visited Mar. 3, 2025).
[39] Cornell Law School, *Negligence*, https://www.law.cornell.edu/wex/negligence (last visited Mar. 3, 2025).
[40] *Barnett v. Dept. of Fin. Serv.*, 303 So. 3d 508, 513-14 (Fla. 2020).
[41] *See* ch. 83-310, s. 84, L.O.F. (codifying ss. 376.30-376.317, F.S.).
[42] *See generally* s. 376.30, F.S.; *see also* Alexa J. Lamm and Pei-wen Huang, *Water Quality Assurance Act: What is it and how can we talk about it?*, University of Florida Institute for Food and Agricultural Sciences (UF/IFAS), Center for Public Issues Education, available at https://www.piecenter.com/pep/wp-content/uploads/PEP_WQAA_Final.pdf (last visited Mar. 3, 2025).

waters of the state.[43] The Department of Environmental Protection is the agency authorized to establish and enforce programs to rehabilitate any polluted waters or lands.[44] As part of its authority, the department may sue any person[45] to enforce the liabilities imposed by the Act.[46]

Additionally, the Act creates a private cause of action for all damages resulting from a discharge[47] or other condition of pollution covered by the Act if the discharge was not specifically authorized by ch. 403, F.S.[48] The Act defines pollution as the presence on the land or in the waters of the state of pollutants in quantities that are or may be potentially harmful or injurious to human health or welfare, animal or plant life, or property, or which may unreasonably interfere with the enjoyment of life or property, including outdoor recreation.[49]

The Act imposes strict liability on a polluter, meaning it is only necessary to show the prohibited discharge or other pollutive condition occurred; it is not necessary to prove the polluter acted negligently.[50] The Act expressly imposes strict liability on an owner or operator of a facility, or on any person who caused a discharge or other polluting condition at a facility.[51]

Because the Act imposes a strict liability standard, if a defendant is sued under the Act, the only defense a defendant may plead and prove to avoid liability is that the occurrence was solely the result of any of the following conditions or a combination of conditions:

- An act of war.
- An act of government.[52]
- An act of God.[53]
- An act or omission of a third party under certain conditions.[54]

Liability under the Act is joint and several.[55] However, if more than one discharge has occurred and the damage is divisible and can be attributed to a particular defendant or defendants, each

[43] Section 376.302(1), F.S.
[44] Section 376.30(3), F.S.
[45] "Person" means any individual, partner, joint venture, or corporation; any group of the foregoing, organized or united for a business purpose; or any governmental entity. Section 376.301(29), F.S.
[46] Section 376.303(1)(j), F.S.
[47] "Discharge" includes, but is not limited to, any spilling, leaking, seeping, pouring, misapplying, emitting, emptying, releasing, or dumping of any pollutant or hazardous substance which occurs and which affects lands and the surface and ground waters of the state not regulated by the Pollutant Discharge Prevention and Control Act (ss. 376.011-376.21, F.S.). Section 376.301(13), F.S.
[48] Section 376.313(3), F.S. Chapter 403, F.S., relates to environmental control, including pollution control, environmental regulation, and water supply and water treatment plants.
[49] Section 376.301(37), F.S.
[50] Section 376.308(1), F.S.
[51] Section 376.308(1)(a), F.S.
[52] Section 376.308(2)(b), F.S. This includes state, federal, or local acts of government, unless the person claiming the defense is a governmental body, in which case the defense is available only by acts of other governmental bodies.
[53] Section 376.308(2)(c), F.S. This includes only unforeseeable acts exclusively occasioned by the violence of nature without the interference of any human agency.
[54] Section 376.308(2), F.S.; *see also* s. 376.308(1)(c), F.S. (providing that defenses also exist for an owner of a petroleum storage facility or a drycleaning or wholesale supply facility where certain circumstances apply).
[55] Sections 376.313(3) and 376.308(4), F.S. Joint and several liability refers to instances when two or more parties are liable for a tortious act, and each party may be found to be independently liable for the full extent of the injury stemming from the tortious act. Cornell Law School, *Joint and Several Liability*, https://www.law.cornell.edu/wex/joint_and_several_liability (last visited Mar. 3, 2025).

defendant is liable only for the costs associated with his or her damages. The burden is on the defendant to demonstrate the divisibility of the damages.[56]

III. Effect of Proposed Changes:

The bill establishes a defense from strict liability in lawsuits brought by the Department of Environmental Protection or others for a cause of action based on a natural geology substance on the site of a former phosphate mine. Former phosphate mine owners and operators must satisfy certain conditions to rely upon the defense.

The Water Quality Assurance Act imposes strict liability on persons or entities that are responsible for environmental pollution. The strict liability defense established by the bill applies to lawsuits brought by both the department and private parties.

Section 1 of the bill amends s. 376.308(2), F.S., to add the defense to the statutory list of defenses a defendant may plead and prove to avoid strict liability under the Act.

Specifically, a defendant may avoid strict liability under the Act if the condition giving rise to the cause of action is a natural geological substance of a former phosphate mine, as defined in s. 378.213, F.S., for which:

- A notice identifying the property as a former phosphate mine has been recorded in accordance with s. 378.213(2), F.S.; and
- The Department of Health has conducted a radiation survey of the property at the request of a landowner pursuant to s. 404.0561(1), F.S.

Sections 378.213 and 404.0561, F.S., are both new statutes created by the bill.

Section 2 of the bill creates s. 378.213, F.S., regarding the giving of notice to the public that certain specified lands are former phosphate mine sites, to provide that:

- Phosphate mining is an essential agricultural activity that is necessary for the food security of the nation and this state and that, further, formerly mined lands are a valuable resource.
- The highest and best use of formerly mined lands is in the state's interests.
- A landowner may record a notice in the official records of the county in which the land is located which identifies the landowner's property as a former phosphate mine. The recorded notice, which serves as notice that the land is a former phosphate mine, must be in substantially the following form:

NOTICE
This property is a former phosphate mine as defined in s. 378.213(3), Florida Statutes.

Under the bill, "former phosphate mine" means an area of land upon which phosphate mining has been conducted and which may have been subject to a radiation survey in accordance with s. 404.0561, F.S., and state reclamation requirements of ss. 378.201-378.212, F.S., but does not include a phosphogypsum stack as defined in s. 403.4154(1)(d), F.S.

[56] Section 376.308(4), F.S.

Section 3 of the bill creates s. 404.0561, F.S., regarding the monitoring of former phosphate mining lands, to provide that:

- Upon petition by a current landowner, the Department of Health must conduct a gamma radiation survey of a former phosphate land parcel within 120 days to determine the radioactivity levels. The survey must document gamma radiation exposure measurements and the locations of the measurements. Gamma radiation measurements must be taken at the density of one per site or one per acre of land, whichever is greater.
- The department must provide a copy of the preliminary survey results to the petitioner within 30 days after completion of the survey. Within 60 days after receipt of the survey, the petitioner may request an additional survey based upon any reasonable belief that the survey was flawed or not representative of conditions on the site. The department must conduct one additional survey within 90 days after receipt of the petitioner's request. The additional survey must meet the requirements of the bill and is deemed final within 90 days after completion.

Section 4 of the bill creates s. 768.405, F.S., regarding prelitigation documentation of radiation levels.

The bill requires plaintiffs to include a radiation survey of the property with any complaint they file for an alleged discharge of hazardous substances or condition of pollution related to phosphate mining, including the presence of mining overburden, solid waste from the extraction, or beneficiation of phosphate rock from a phosphate mine. The radiation survey requirement applies to any civil action based on strict liability under state law,[57] negligence, or similar conduct. It also applies to any other similar claim related to the mining of phosphatic rock or reclamation of a mined area.

The survey must be prepared by a person certified as either a health physicist by the American Board of Health Physics or as a radiation protection technologist by the National Registry of Radiation Protection Technologists.

The survey must also be representative and document the measured gamma radiation on the property. It must include:

- Background values determined in accordance with the Environmental Protection Agency's Multi-agency Radiation Survey and Site Investigation Manual.
- Measurement locations.
- Testing equipment used.
- Testing methodology used, including the equipment calibration date and protocol.
- Name of the person performing the survey and a description of the person's relevant training, education, and experience.

The survey must be verified under penalty of perjury as provided under state law.[58]

Section 5 provides that the bill takes effect July 1, 2025.

[57] Section 376.313(3), F.S.
[58] *See* s. 92.525, F.S. (providing for the verification of documents and penalties for persons making false declarations).

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:

The bill may have an indeterminate positive fiscal impact on owners or operators of former phosphate mines who may have a defense to strict liability under the Water Quality Assurance Act. The bill may have an indeterminate negative fiscal impact on plaintiffs associated with hiring a health physicist or radiation protection technologist.

The requirement to conduct a presuit radiation survey before commencing litigation regarding the discharge of pollution relating to phosphate mining may reduce the potential for lawsuits where there has been no harm.

C. Government Sector Impact:

The bill may have an indeterminate negative fiscal impact on the Department of Health associated with conducting radiation surveys as required by the bill.

VI. Technical Deficiencies:

None.

VII. Related Issues:

None.

VIII. Statutes Affected:

This bill substantially amends section 376.308 of the Florida Statutes.

This bill creates the following sections of the Florida Statutes: 378.213, 404.0561, and 768.405.

IX. Additional Information:

A. Committee Substitute – Statement of Changes:

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

CS by Judiciary on March 12, 2025:

The committee substitute revises the underlying bill to:

- Prescribe a form for the notice that a landowner may record identifying the landowner's property as a former phosphate mine.
- Define the term "former phosphate mine."
- Make other revisions not affecting the effect of the bill.

B. Amendments:

None.