

HOUSE OF REPRESENTATIVES STAFF ANALYSIS

BILL #: CS/HB 1047 Construction Materials Mining Activities

SPONSOR(S): Government Operations & Technology Appropriations Subcommittee, Avila

TIED BILLS: **IDEN./SIM. BILLS:** SB 1618

REFERENCE	ACTION	ANALYST	STAFF DIRECTOR or BUDGET/POLICY CHIEF
1) Agriculture & Natural Resources Subcommittee	11 Y, 0 N	Melkun	Moore
2) Government Operations & Technology Appropriations Subcommittee	11 Y, 0 N, As CS	Helpling	Topp
3) State Affairs Committee			

SUMMARY ANALYSIS

The Miami-Dade County Lake Belt Area (Lake Belt) encompasses 77.5 square miles of land at the western edge of the Miami-Dade County urban area. The Lake Belt provides the largest source of high quality limestone in Florida, supplying approximately 60 million tons of rock annually. The limestone mined from the Lake Belt provides the base material needed for concrete, asphalt, and road construction. The process of extracting limestone and sand suitable for producing construction materials is referred to as construction materials mining.

For hard rock formations, explosives may be used to break up the rock into sizes that may be more easily mined. The use of explosives in mining activities is regulated by the federal and state governments in order to limit the strength of explosions to ensure the explosions do not cause damage to nearby buildings or structures. In Florida, the State Fire Marshal, through the Division of State Fire Marshal (division) within the Department of Financial Services (DFS), has the sole and exclusive authority to regulate the use of explosives in conjunction with construction materials mining. Currently, mining companies are required to hire independent seismologists to monitor explosions and must provide a report reflecting the strength of each explosion to DFS upon request. DFS does not independently monitor blasts resulting from the use of explosives for construction materials mining activities.

The bill creates a monitoring and reporting pilot program for the use of explosives (pilot program) within the division to monitor and report each blast resulting from the use of explosives for construction materials mining activities in Miami-Dade County. The bill requires the State Fire Marshal to hire or contract with seismologists to monitor and report each blast and provides restrictions on who may be hired.

The bill requires a person or entity that engages in construction materials mining activities to provide written notice to the State Fire Marshal of the use of an explosive for such activities in Miami-Dade County before the detonation of the explosive.

For Fiscal Year 2020-21, the bill appropriates a recurring sum of \$600,000 and nonrecurring sum of \$440,000 from the General Revenue Fund and a nonrecurring sum of \$1,000,000 from the Insurance Regulatory Trust Fund to the State Fire Marshal to implement the pilot program.

FULL ANALYSIS

I. SUBSTANTIVE ANALYSIS

A. EFFECT OF PROPOSED CHANGES:

Background

Miami-Dade County Lake Belt Area

The Miami-Dade County Lake Belt Area (Lake Belt) encompasses 77.5 square miles of land at the western edge of the Miami-Dade County urban area.¹ Generally, the Lake Belt is bounded by the Ronald Reagan Turnpike to the east, the Miami-Dade-Broward County line to the north, Krome Avenue to the west, and Tamiami Trail to the south, and it also includes certain lands south of Tamiami Trail.² The Lake Belt provides the largest source of high quality limestone in Florida, supplying approximately 60 million tons of rock annually.³ The limestone mined from the Lake Belt provides the base material needed for concrete, asphalt, and road construction.⁴ The process of extracting limestone and sand suitable for producing construction materials is referred to as construction materials mining.⁵

The Lake Belt is an environmentally sensitive region, as the majority of the area consists of wetlands that were once part of the historical Everglades watershed. The area also overlays the Biscayne Aquifer, which is designated as a sole source aquifer by the Environmental Protection Agency (EPA).⁶ In addition, the Miami-Dade Northwest Wellfield (NWWF) is located along the eastern edge of the Lake Belt and is comprised of 15 water supply wells that withdraw water from the Biscayne Aquifer. The NWWF is the major source of drinking water for Miami-Dade County, supplying approximately 40 percent of the county's water needs.⁷

Regulation of Explosives

For hard rock formations, explosives may be used to break up the rock into sizes that may be more easily mined.⁸ The use of explosives in mining activities is regulated by the federal and state governments in order to limit the strength of explosions to ensure the explosions do not cause damage to nearby buildings or structures. On the federal level, Title 30 of the United States Code and its various implementing regulations establish the basic safety, health, certification, reporting, and environmental requirements for the use of explosives in mining operations.

In Florida, the State Fire Marshal, through the Division of State Fire Marshal (division) within the Department of Financial Services (DFS), has the sole and exclusive authority to promulgate standards, limits, and regulations regarding the use of explosives in conjunction with construction materials mining.⁹ This authority includes the operation, handling, licensure, and permitting of explosives. The DFS rules establish limitations for ground vibration, frequency, intensity, blast pattern, and air blast as well as restrictions on when explosives may be used. The DFS rules also establish requirements for a

¹ South Florida Water Management District, *Lake Belt Mitigation Committee*, available at <https://www.sfwmd.gov/our-work/lake-belt-committee> (last visited Jan. 9, 2020).

² Section 373.4149(3), F.S.

³ White Rock Quarries, *Facts About the Florida and Miami-Dade Limestone Industry*, available at <http://www.wrquarries.com/facts-about-the-florida-and-miami-dade-limestone-industry/> (last visited Jan. 10, 2020).

⁴ Section 373.4149, F.S.

⁵ Section 552.30(1), F.S.

⁶ EPA, *Sole Source Aquifers*, available at <https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=9ebb047ba3ec41ada1877155fe31356b> (last visited Jan. 10, 2020).

“Sole source aquifer” means an aquifer that is needed to supply 50 percent or more of the drinking water for a given aquifer service area for which there are no reasonably available alternative sources should the aquifer become contaminated. EPA, *Overview of the Drinking Water Sole Source Aquifer Program*, available at https://www.epa.gov/dwssa/overview-drinking-water-sole-source-aquifer-program#What_Is_SSA (last visited Jan. 10, 2020).

⁷ Miami-Dade County Department of Environmental Resources Management, *Northwest Wellfield Watershed Protection Plan* (2000), 1, available at <https://www.sfwmd.gov/sites/default/files/documents/wlfdpln.pdf> (last visited Jan. 10, 2020).

⁸ Florida Department of Environmental Protection, *Limestone, Shell, Dolomite*, available at <https://floridadep.gov/water/mining-mitigation/content/limestone-shell-dolomite> (last visited Jan. 10, 2020).

⁹ Section 552.30(1), F.S.

mining company to provide notice to local governments in which the entity will conduct mining activities.¹⁰

The State Fire Marshal has the authority to delegate the monitoring and enforcement of the use of explosives by mining companies to local governments. This authority includes allowing local governments to assess and collect reasonable fees for the purpose of monitoring and enforcing the current limits of explosions used for mining purposes.¹¹

Currently, mining companies are required to hire independent seismologists¹² to monitor explosions and must provide a report reflecting the strength of each explosion to DFS upon request. DFS does not independently monitor blasts resulting from the use of explosives for construction materials mining activities. The State Fire Marshal may restrict the quantity and use of explosives at any location within the state if the State Fire Marshal determines the use of such explosives is likely to cause injury to life or property. In making such determination, the State Fire Marshal must consider the distance of blasting activity to structures, the use and occupancy of structures near blasting activity, the geology of the area, and the type of construction used in structures near blasting activities.¹³

According to DFS, 31 of the 90 construction materials mining permits issued in the state are within Miami-Dade County, making it the county with the highest number of such permits.¹⁴

2018 Mining Study

In 2017, the Legislature appropriated funds to require the State Fire Marshal to contract for a study to review whether the statewide ground vibration limits established in DFS rule for construction materials mining activities are still appropriate and to review any legitimate claims for damages caused by such mining activities.¹⁵ The study was required to include a review of measured amplitudes and frequencies, structure responses, theoretical analyses of material strengths and strains, and assessments of home damages.¹⁶

The study was completed in 2018 and concluded that the mines were in compliance with both federal and state maximum blasting vibration limits, but recommended including frequency as part of the state vibration limits as well as conducting a follow-up study to evaluate minimum seismograph specifications.¹⁷

Effect of the Bill

The bill creates a monitoring and reporting pilot program for the use of explosives (pilot program) within the division to monitor and report each blast resulting from the use of explosives for construction materials mining activities in Miami-Dade County. The bill requires the State Fire Marshal to hire or contract with seismologists to monitor and report each blast, including, at a minimum, monitoring and reporting the ground vibration, frequency, intensity, air blast, and time and date of the blast. The bill further requires the State Fire Marshal to make the reports available to the public on the division's website.

¹⁰ Rule 69A-2.024, F.A.C.; *see also*, Florida Department of Environmental Protection, *Limestone, Shell, Dolomite*, available at <https://floridadep.gov/water/mining-mitigation/content/limestone-shell-dolomite> (last visited Jan. 10, 2020).

¹¹ Section 552.30(2), F.S.

¹² "Independent seismologist" means an individual whose function includes vibration and air overpressure measurement and the analysis and evaluation of their effects upon structures. A seismologist is not considered independent if he or she is an employee of the mining permit holder, blaster, or user; or any entity subject to regulation under s. 552.30, F.S. Rule 69A-2.024(2)(b), F.A.C.

¹³ Section 552.211(3), F.S.; r. 69A-2.024(13), F.A.C.

¹⁴ Email from Meredith Stanfield, Director of Legislative and Cabinet Affairs, Department of Financial Services, Re: Construction Mine Blasting, (Dec. 10, 2019) (on file with the Agriculture & Natural Resources Subcommittee).

¹⁵ Chapter 2017-70, Laws of Fla.; s. 552.30(3), F.S.

¹⁶ Section 552.30(3), F.S.

¹⁷ RESPEC, *Construction Materials Mining Activities Consultation and Study Preparation Services* (July 2018), 90, available at <https://www.myfloridacfo.com/Division/SFM/BFP/documents/MineBlastingStudy.pdf> (last visited Jan. 17, 2020).

The bill prohibits the State Fire Marshal from hiring or contracting with a seismologist for the pilot program who:

- Is an employee of or under contract with a person or entity that engages in or contracts for construction materials mining activities; or
- Has engaged in dishonest practices relating to the collection or analysis of data or information regarding the use of explosives in construction materials mining activities.

The bill requires a person or entity that engages in construction materials mining activities to provide written notice to the State Fire Marshal of the use of an explosive for such activities in Miami-Dade County before the detonation of the explosive.

The bill requires the State Fire Marshal to adopt rules to implement and enforce the pilot program.

B. SECTION DIRECTORY:

Section 1. Amends s. 552.30, F.S., to create the pilot program.

Section 2. Provides appropriations.

Section 3. Provides an effective date of October 1, 2020.

II. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT

A. FISCAL IMPACT ON STATE GOVERNMENT:

1. Revenues:

None.

2. Expenditures:

The bill appropriates funds for the purpose of implementing the pilot program. For Fiscal Year 2020-21, the bill appropriates a recurring sum of \$600,000 and nonrecurring sum of \$440,000 from the General Revenue Fund and a nonrecurring sum of \$1,000,000 from the Insurance Regulatory Trust Fund to the State Fire Marshal to implement the pilot program.

B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

1. Revenues:

None.

2. Expenditures:

None.

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

None.

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:

The bill requires the division to adopt rules to implement the pilot program.

C. DRAFTING ISSUES OR OTHER COMMENTS:

None.

IV. AMENDMENTS/ COMMITTEE SUBSTITUTE CHANGES

On Tuesday, February 11, 2020, the Government Operations & Technology Appropriations Subcommittee adopted one amendment and reported the bill favorably as a committee substitute. The amendment provided an additional appropriation of \$1,000,000 from the Insurance Regulatory Trust Fund to the State Fire Marshal to implement the pilot program.

This analysis is drafted to the committee substitute as passed by the Government Operations & Technology Appropriations Subcommittee.