Tab 1	SB 666 by Hooper; (Identical to H 00835) Veterinary Medicine
Tab 2	SB 880 by Albritton; (Identical to H 00811) Young Farmers and Ranchers
Tab 3	SPB 7062 by AG ; Department of Agriculture and Consumer Services Citizen Support Organizations and Direct-support Organizations
Tab 4	SPB 7064 by AG; Fracking

The Florida Senate

COMMITTEE MEETING EXPANDED AGENDA

AGRICULTURE Senator Albritton, Chair Senator Gainer, Vice Chair

MEETING DATE: Monday, March 4, 2019

TIME: 1:00—3:00 p.m.

PLACE: 301 Senate Building

MEMBERS: Senator Albritton, Chair; Senator Gainer, Vice Chair; Senators Broxson, Montford, and Rader

TAB	BILL NO. and INTRODUCER	BILL DESCRIPTION and SENATE COMMITTEE ACTIONS	COMMITTEE ACTION
1	SB 666 Hooper (Identical H 835)	Veterinary Medicine; Defining and redefining terms relating to veterinary medical practice, etc. AG 03/04/2019 Favorable IT RC	Favorable Yeas 5 Nays 0
2	SB 880 Albritton (Identical H 811)	Young Farmers and Ranchers; Creating the Florida Young Farmer and Rancher Matching Grant Program within the Department of Agriculture and Consumer Services; specifying that grant funding is contingent upon specific appropriation by the Legislature, etc. AG 03/04/2019 Temporarily Postponed AEG AP	Temporarily Postponed
	Consideration of proposed bill:		
3	SPB 7062	Department of Agriculture and Consumer Services Citizen Support Organizations and Direct-support Organizations; Extending the scheduled repeal of the provisions governing the citizen support organizations operating to the benefit of the Babcock Ranch Preserve; abrogating the scheduled repeal of provisions governing the Florida Beef Council, Inc., direct-support organization; abrogating the scheduled repeal of provisions relating to direct-support organizations of the Department of Agriculture and Consumer Services, etc.	Submitted and Reported Favorably as Committee Bill Yeas 5 Nays 0
	Consideration of proposed bill:		
4	SPB 7064	Fracking; Defining the term "fracking"; prohibiting fracking in this state; providing that permits for drilling or operating a well do not authorize fracking, etc.	Temporarily Postponed
	Other Related Meeting Documents		

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 Agriculture							
BILL:	SB 666							
INTRODUCER:	Senator Hoo	per						
SUBJECT:	Veterinary N	Medicine						
DATE:	March 4, 20	19	REVISED:					
ANAL	YST	STAFF	DIRECTOR	REFERENCE		ACTION		
1. Akhavein		Becker		AG	Favorable			
2.	_			IT				
3.				RC				

I. Summary:

SB 666 updates definitions in Chapter 474, F.S., to create a well-defined standard of practice that provides both clarity and guidance to veterinarians, the public, and the Board of Veterinary Medicine. It amends the current definition of "patient" to also include a "herd, collection, or group of animals." The bill creates a definition for the term "physical examination" to mean the evaluation of a patient by personal inspection, palpation, and auscultation by a veterinarian. The bill also amends the current definition of "veterinarian/client/patient relationship" to mean a relationship in which a veterinarian has examined the patient or has made "timely and medically appropriate" visits to the premises where the patient is kept, or the veterinarian has had access to the patient's records and has been designated by a veterinarian with whom the patient had a prior relationship to provide reasonable and appropriate medical care.

II. Present Situation:

Veterinary Medicine, the Practice of Veterinary Medicine, and Exempted Persons

In 1979, the Legislature determined the practice of veterinary medicine is potentially dangerous to public health and safety if conducted by incompetent and unlicensed practitioners and that minimum requirements for the safe practice of veterinary medicine are necessary. The Board of Veterinary Medicine (board) in the Department of Business and Professional Regulation (DBPR) implements the provisions of ch. 474, F.S., on Veterinary Medical Practice. A veterinarian is a health care practitioner licensed to engage in the practice of veterinary medicine in Florida under ch. 474, F.S.

¹ See s. 474.201, F.S.

² See ss. 474.204 through 474.2125, F.S., concerning the powers and duties of the board.

³ See s. 474.202(11), F.S.

Veterinary medicine includes, with respect to animals:⁴

- Surgery;
- Acupuncture;
- Obstetrics:
- Dentistry:
- Physical therapy;
- Radiology;
- Theriogenology (reproductive medicine);⁵ and
- Other branches or specialties of veterinary medicine.

The practice of veterinary medicine is the diagnosis of medical conditions of animals, and the prescribing or administering of medicine and treatment to animals for the prevention, cure, or relief of a wound, fracture, bodily injury, or disease, or holding oneself out as performing any of these functions.⁶ Veterinarians who are incompetent or present a danger to the public are subject to discipline and may be prohibited from practicing in the state.⁷

Eight categories of persons are exempt from complying with ch. 474, F.S.:⁸

- Faculty veterinarians when they have assigned teaching duties at accredited institutions;
- Intern/resident veterinarians at accredited institutions who are graduates of an accredited institution, but only until they complete or terminate their training;
- Students in a school or college of veterinary medicine who perform assigned duties by an instructor (no accreditation of the institution is required), or work as preceptors¹⁰ (if the preceptorship is required for graduation from an accredited institution);

⁴ See s. 474.202(13), F.S. Section 474.202(1), F.S., defines "animal" as "any mammal other than a human being or any bird, amphibian, fish, or reptile, wild or domestic, living or dead."

⁵ The Society for Theriogenology, established in 1954, is composed of veterinarians dedicated to standards of excellence in animal reproduction. *See* http://www.therio.org/ (Last visited February 15, 2019).

⁶ See s. 474.202(9), F.S. Also included is the determination of the health, fitness, or soundness of an animal, and the performance of any manual procedure for the diagnosis or treatment of pregnancy or fertility or infertility of animals.

⁷ See s. 474.213, F.S., on prohibited acts, and s. 474.214, F.S., on disciplinary proceedings.

⁸ See s. 474.203, F.S.

⁹ Sections 474.203(1) and (2), F.S., provide that accreditation of a school or college must be granted by the American Veterinary Medical Association (AVMA) Council on Education, or the AVMA Commission for Foreign Veterinary Graduates. The AVMA Council on Education is recognized by the Council for Higher Education Accreditation (CHEA) as the accrediting body for schools and programs that offer the professional Doctor of Veterinary Medicine degree (or its equivalent) in the United States and Canada, and may also approve foreign veterinary colleges. *See* https://www.avma.org/professionaldevelopment/education/accreditation/colleges/pages/coe-pp-overview-of-the-coe.aspx (Last visited February 15, 2019). The AVMA Commission for Foreign Veterinary Graduates assists graduates of foreign, non-accredited schools to meet the requirement of most states that such foreign graduates successfully complete an educational equivalency assessment certification program. *See*

https://www.avma.org/professionaldevelopment/education/foreign/pages/ecfvg-about-us.aspx (Last visited February 15, 2019). In turn, the Council for Higher Education Accreditation, a national advocate for regulation of academic quality through accreditation, is an association of 3,000 degree-granting colleges and universities. See http://chea.org/about (Last visited February 15, 2019).

¹⁰ A preceptor is a skilled practitioner or faculty member, who directs, teaches, supervises, and evaluates student in a clinical setting to allow practical experience with patients. *See* https://www.merriam-webster.com/dictionary/preceptor#medicalDictionary (Last visited February 15, 2019).

• Doctors of veterinary medicine employed by a state agency or the United States Government while actually engaged in the performance of official duties at the installations for which the services were engaged;

- Persons or their employees caring for the persons' own animals, as well as part-time or temporary employees, or independent contractors, who are hired by an owner to help with herd management and animal husbandry tasks (excluding immunization or treatment of diseases that are communicable to humans and significant to public health) for herd/flock animals, with certain limitations; however, the exemption is not available to a person licensed as a veterinarian in another state and temporarily practicing in Florida, or convicted of violating ch. 828, F.S., on animal cruelty, or of any similar offense in another jurisdiction, and employment may not be provided for the purpose of circumventing ch. 474, F.S.;
- Certain entities or persons¹¹ that conduct experiments and scientific research on animals as part of the development of pharmaceuticals, biologicals, serums, or treatment methods of treatment or techniques to diagnose or treatment of human ailments, or in the study and development of methods and techniques applicable to the practice of veterinary medicine;
- Veterinary aides, nurses, laboratory technicians, preceptors, or other employees of a licensed veterinarian, who administer medication or provide help or support under the responsible supervision¹² of a licensed veterinarian; and
- Certain non-Florida veterinarians who are licensed and actively practicing veterinary
 medicine in another state, are board certified in a specialty recognized by the Florida Board
 of Veterinary Medicine, and are assisting upon request of a Florida-licensed veterinarian to
 consult on the treatment of a specific animal or on the treatment on a specific case of the
 animals of a single owner.

Veterinarian/Client/Patient Relationship

Section 474.202(12), F.S., defines a "veterinarian/client/patient relationship" as one in which a veterinarian has assumed responsibility for making medical judgments about the health of an animal and its need for medical treatment. The term "patient" means any animal "for which a veterinarian practices veterinary medicine." ¹³

III. Effect of Proposed Changes:

Section 1 amends the current definition of "patient" in s. 474.202(8), F.S., to also include a "herd, collection, or group of animals." The bill adds s. 474.202(9), F.S., to define "physical examination" as the evaluation of a patient by personal inspection, palpitation, ¹⁴ and auscultation (listening to sounds using a stethoscope) by a veterinarian. Currently, "veterinarian/client/patient

¹¹See s. 474.203(6), F.S., which states that the exemption applies to "[s]tate agencies, accredited schools, institutions, foundations, business corporations or associations, physicians licensed to practice medicine and surgery in all its branches, graduate doctors of veterinary medicine, or persons under the direct supervision thereof"

¹² The term "responsible supervision" is defined in s. 474.202(10), F.S., as the "control, direction, and regulation by a licensed doctor of veterinary medicine of the duties involving veterinary services" delegated to unlicensed personnel. ¹³ See s. 474.202(8), F.S.

¹⁴ Palpation is an examination that includes pressing on the body to feel organs and tissues underneath. *See the Dictionary of Cancer Terms of the National Cancer Institute at the National Institutes of Health, available at* https://www.cancer.gov/publications/dictionaries/cancer-terms?cdrid=454743 (Last visited February 15, 2019).

relationship" in s. 474.202(13), F.S., is defined as a relationship where the veterinarian has assumed responsibility for making medical judgements about the health of an animal and its need for medical treatment. The bill revises this definition to require the veterinarian to examine the patient or make "timely and medically appropriate" visits to the premises where the patient is kept. It also includes a veterinarian who has access to the patient's records and has been designated by a veterinarian with whom the patient had a prior relationship to provide reasonable and appropriate medical care.

Section 2 amends s. 474.2165, F.S., to substitute the term "physical examination" for "examination," to conform to the definition of "physical examination" created in s. 474.202(9), F.S.

Section 3 reenacts s. 465.0276(5), F.S., relating to dispensing practitioners, to incorporate the amendments made to s. 474.202, F.S.

Section 4 provides that this act shall take effect July 1, 2019.

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 identified.

V. Fiscal Impact Statement:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

None.

C.	Government	Sector	Impact:

None.

VI. Technical Deficiencies:

None.

VII. Related Issues:

None.

VIII. Statutes Affected:

This bill amends the sections 474.202 and 474.2165 of the Florida Statutes. This bill reenacts section 465.0276 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.

Florida Senate - 2019 SB 666

By Senator Hooper

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16-00950-19 2019666

A bill to be entitled An act relating to veterinary medicine; amending s. 474.202, F.S.; defining and redefining terms relating to veterinary medical practice; amending s. 474.2165, F.S.; conforming provisions to changes made by the act; reenacting s. 465.0276(5), F.S., relating to dispensing practitioners to incorporate the amendment made to s. 474.202, F.S., in a reference thereto; providing an effective date.

Be It Enacted by the Legislature of the State of Florida:

Section 1. Present subsections (9) through (12) of section 474.202, Florida Statutes, are redesignated as subsections (10) through (13), respectively, subsection (8) and present subsection (12) are amended, and a new subsection (9) is added to that section, to read:

474.202 Definitions.—As used in this chapter:

- (8) "Patient" means any animal, or any herd, collection, or group of animals, for which the veterinarian practices veterinary medicine.
- (9) "Physical examination" means the evaluation of a patient by personal inspection, palpation, and auscultation.
- (13) (12) "Veterinarian/client/patient relationship" means a relationship in which where the veterinarian has performed a physical examination of the patient or made timely and medically appropriate visits to the premises where the patient is kept and the veterinarian has assumed the responsibility for making medical judgments regarding the health of the patient animal and

Page 1 of 3

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Florida Senate - 2019 SB 666

16-00950-19 2019666__

its need for medical treatment <u>or the veterinarian has access to</u> the patient's records and has been designated by a veterinarian with whom the patient had a prior relationship to provide reasonable and appropriate medical care.

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Section 2. Subsections (1) and (3) and paragraph (a) of subsection (4) of section 474.2165, Florida Statutes, are amended to read:

474.2165 Ownership and control of veterinary medical patient records; report or copies of records to be furnished.—

- (1) As used in this section, the term "records owner" means a any veterinarian who generates a medical record after performing making a physical examination of, or administering treatment or dispensing legend drugs to, a any patient; a any veterinarian to whom records are transferred by a previous records owner; or a any veterinarian's employer, provided the employment contract or agreement between the employer and the veterinarian designates the employer as the records owner.
- (3) Any records owner licensed under this chapter who performs a physical makes an examination of, or administers treatment or dispenses legend drugs to, a any patient shall, upon request of the client or the client's legal representative, timely furnish, in a timely manner, without delays for legal review, copies of all reports and records relating to such physical examination or treatment, including X rays. The furnishing of such report or copies may shall not be conditioned upon payment of a fee for services rendered.
- (4) Except as otherwise provided in this section, such records may not be furnished to, and the medical condition of a patient may not be discussed with, any person other than the

Page 2 of 3

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Florida Senate - 2019 SB 666

16-00950-19 2019666

client or the client's legal representative or other veterinarians involved in the care or treatment of the patient, except upon written authorization of the client. However, such records may be furnished without written authorization under the following circumstances:

(a) To any person, firm, or corporation that has procured or furnished such <u>physical</u> examination or treatment with the client's consent.

Section 3. For the purpose of incorporating the amendment made by this act to section 474.202, Florida Statutes, in a reference thereto, subsection (5) of section 465.0276, Florida Statutes, is reenacted to read:

465.0276 Dispensing practitioner.-

(5) This chapter and the rules adopted thereunder do not prohibit a veterinarian licensed under chapter 474 from administering a compounded drug to a patient, as defined in s. 474.202, or dispensing a compounded drug to the patient's owner or caretaker. This subsection does not affect the regulation of the practice of pharmacy as set forth in this chapter.

Section 4. This act shall take effect July 1, 2019.

Page 3 of 3

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THE FLORIDA SENATE

APPEARANCE RECO	
3/4/2019 (Deliver BOTH copies of this form to the Senator or Senate Professional S	tail conducting the meeting) (664
Meeting Date	Bill Number (if applicable)
Topic Veterinary Medicine	Amendment Barcode (if applicable)
Name Paul Lowell	- -
Job Title <u>Partner</u> , Converge Government Affairs	·
Address 3250 NE 1st Are Ste 365 Street	Phone <u>850 391 4077</u>
Miami FL 33/37 City State Zip	Email Paul a Conversegov. Con
Speaking: For Against Information Waive S	speaking: In Support Against Air will read this information into the record.)
Representing Florida Veterinary Medical Ad	ssociation
	tered with Legislature: Yes No

While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard.

This form is part of the public record for this meeting.

S-001 (10/14/14)

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 Agriculture							
BILL:	SB 880							
INTRODUCER:	Senator Alba	ritton						
SUBJECT:	Young Farm	ners and H	Ranchers					
DATE:	March 1, 20	19	REVISED:					
ANAL	YST	STAFF	DIRECTOR	REFERENCE	ACTION			
1. Akhavein		Becker		AG	Pre-meeting			
2.	_			AEG				
3.				AP				

I. Summary:

SB 880 establishes the Florida Young Farmer and Rancher Matching Grant Program within the Department of Agriculture and Consumer Services (department) to support startup functions for new farming and ranching operations. To receive a grant, an individual must:

- Be an agricultural producer, be an employee of a farm or ranch, or have been actively involved in Future Farmers of America for at least one year;
- Be between the ages of 18 and 35;
- Have operated a farm or ranch for not more than 10 years;
- Demonstrate, at minimum, a dollar-for dollar matching investment for the grant amount requested; and
- Submit a timely grant application.

If funded by the Legislature, each grant award would be between \$5,000 and \$20,000, and a recipient may receive only one award per year.

II. Present Situation:

Opportunities exist within farming and ranching, but beginning farmers and ranchers have unique educational, training, technical assistance, and outreach needs. Capital access, land access, and access to knowledge and information to assist in ensuring profitability and sustainability are vital to those just entering agriculture and in their first ten years of operation.¹

¹ See https://nifa.usda.gov/program/beginning-farmer-and-rancher-development-program-bfrdp (Last visited February 21, 2019).

BILL: SB 880 Page 2

Currently, there are no grant programs within the department specifically to assist young farmers and ranchers. The department does provide resources through its Grant Opportunity² public webpage.

To address the lack of resources and assistance, the 2018 Legislature created a 12 member Florida Young Farmer and Rancher Advisory Council³ to provide an opportunity for young people to offer advice and to give recommendations to the Commissioner of Agriculture about the challenges facing aspiring farmers and ranchers in the early stages of their careers. The council is authorized to examine issues such as access to land, availability of credit and capital, and access to business skills training. The Legislature also directed the department to create the Florida Young Farmer and Rancher Resource Clearinghouse on its website⁴ in order to provide career information and resources to young farmers who will be entering a wide range of jobs involving food production, natural resources, plant systems, animal management, and much more.

III. Effect of Proposed Changes:

Section 1 creates s. 570.842, F.S., to establish the Florida Young Farmer and Rancher Matching Grant Program. The bill requires the department to administer grants to foster the creation and expansion of agricultural businesses by young farmers and ranchers in Florida. The department is directed to adopt rules regarding the program. To be eligible, grant recipients must:

- Be an agricultural producer, employee of a farm or ranch, or have been actively involved in Future Farmers of America for at least 1 year;
- Be at least 18 years of age, but younger than 35 years of age;
- Have operated a farm or ranch for not more than 10 years;
- Demonstrate, at a minimum, a dollar-for-dollar matching investment for grant money requested; and
- Submit a grant application during the time period designated by the department.

The bill requires the department to give preference to applicants who are veterans, as defined in s. 1.01(14), F.S. If funded by the Legislature, each grant award must be between \$5,000 and \$20,000, and a recipient may receive only one award per year.

Section 2 provides that this act shall take effect July 1, 2019.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

² See https://www.freshfromflorida.com/Business-Services/Grant-Opportunities (Last visited February 21, 2019).

³ Section 570.843, F.S.

⁴ See https://www.freshfromflorida.com/Education/Preparing-for-Careers-in-Agriculture (Last visited February 27, 2019).

BILL: SB 880 Page 3

	B.	Public Records/Open Meetings Issues:				
		None.				
	C.	Trust Funds Restrictions:				
		None.				
	D.	State Tax or Fee Increases:				
	None.					
	E.	Other Constitutional Issues:				
		None identified.				
٧.	Fisc	al Impact Statement:				
	A.	Tax/Fee Issues:				
		None.				
	B.	Private Sector Impact:				
		Indeterminate.				
	C.	Government Sector Impact:				
		The Department of Agriculture and Consumer Services has not provided fiscal information for this bill.				
VI.	Tech	nnical Deficiencies:				
	None					
VII.	Rela	ted Issues:				
	None					
VIII.	Statu	utes Affected:				
	This	bill creates section 570.842 of the Florida Statutes.				
IX.	Addi	itional Information:				
	A.	Committee Substitute – Statement of Changes: (Summarizing differences between the Committee Substitute and the prior version of the bill.)				

None.

BILL: SB 880 Page 4

B. Amendments:

None.

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

Florida Senate - 2019 SB 880

By Senator Albritton

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26-01811A-19 2019880

A bill to be entitled
An act relating to young farmers and ranchers;
creating s. 570.842, F.S.; creating the Florida Young
Farmer and Rancher Matching Grant Program within the
Department of Agriculture and Consumer Services;
specifying the purpose of the grants; requiring the
department to select grant recipients based on
specified criteria; requiring the department to adopt
rules; requiring that applicants meet specified
eligibility requirements; specifying a range for grant
amounts; providing that a recipient may not receive
more than one award per year under the program;
specifying that grant funding is contingent upon
specific appropriation by the Legislature; providing
an effective date.

Be It Enacted by the Legislature of the State of Florida:

Section 1. Section 570.842, Florida Statutes, is created to read:

570.842 Florida Young Farmer and Rancher Matching Grant $\tt Program.-$

- (1) The Florida Young Farmer and Rancher Matching Grant
 Program is created within the department to support the startup
 functions associated with new farming and ranching operations.
- (a) Grants administered by the department through this program must be for the purpose of fostering the creation and expansion of agricultural businesses by young farmers and ranchers in this state.

Page 1 of 3

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Florida Senate - 2019 SB 880

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26-01811A-19

30	(b) The department shall select grant recipients based on
31	selection criteria adopted pursuant to subsection (2).
32	(2) The department shall adopt rules governing the
33	operation of the program, including an application process and
34	selection criteria for grant recipients.
35	(a) At a minimum, in order to be eligible to receive a
36	grant, an individual must meet all of the following
37	requirements:
38	1. Be an agricultural producer, be an employee of a farm or
39	ranch, or have been actively involved in Future Farmers of
40	America for at least 1 year.
41	2. Be at least 18 years of age, but younger than 35 years
42	of age.
43	3. Have operated a farm or ranch for not more than 10
44	<u>years.</u>
45	4. Demonstrate, at minimum, a dollar-for-dollar matching
46	investment for the grant amount requested.
47	5. Submit, on a form prescribed by the department, a grant
48	application during the application period established by the
49	department. The department may designate only one period each
50	year for accepting applications.
51	(b) In the application review process, the department shall
52	give a preference to an applicant who is a veteran, as defined
53	<u>in s. 1.01(14).</u>
54	(3) Each grant award under the program must be between
55	\$5,000 and $$20,000$, with no more than one award being made to an
56	individual grant recipient per grant period.
57	(4) Annual grant funding for this program is contingent
58	upon specific annual appropriation by the Legislature.

Page 2 of 3

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Florida Senate - 2019 SB 880

26-01811A-19 2019880__ 59 Section 2. This act shall take effect July 1, 2019.

Page 3 of 3

 ${\bf CODING:}$ Words ${\bf stricken}$ are deletions; words ${\bf \underline{underlined}}$ are additions.

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.)

	Prep	pared By: The Professio	nal Staff of the Commit	tee on Agriculture
BILL:	SPB 7062			
NTRODUCER:	For conside	eration by Agricultur	re Committee	
SUBJECT:	-	nt of Agriculture and port Organizations	Consumer Services	Citizen Support Organizations and
DATE:	March 5, 2	019 REVISED):	
ANAL	YST	STAFF DIRECTOR	R REFERENCE	ACTION
Akhavein		Becker		AG Submitted as Committee Bill/Fav
			<u> </u>	

I. Summary:

SPB 7062 removes the scheduled repeal date of the law authorizing the Florida Department of Agriculture and Consumer Services (department) to establish direct-support organizations (DSO) to provide assistance, funding, and support to assist the department in furthering its goals. These DSOs are:

- Friends of the Florida State Forests
- Forestry Arson Alert Association, Inc.
- Florida Agricultural Museum
- Florida Agriculture in the Classroom, Inc.
- Florida Agriculture Center and Horse Park Authority
- Living Healthy in Florida, Inc.
- Florida Beef Council, Inc.

SPB 7062 also extends the repeal date for the Friends of the Babcock Ranch Preserve, Inc., which serves as a citizen support organization (CSO) within the department, from October 1, 2019 to October 1, 2024.

Professional staff of the Senate Committee on Agriculture reviewed documents related to the DSOs and the CSO for compliance with the authorizing and accountability statutes and finds that they are in compliance with statutory requirements.

II. Present Situation:

Citizen Support Organizations and Direct-Support Organizations

DSOs and CSOs are statutorily created non-profit organizations¹ authorized to assist or support governmental entities in carrying out their duties. The function and purpose of a DSO or CSO is prescribed by an enacting statute and a written contract with the agency the DSO or CSO supports.²

Transparency and Reporting Requirements

In 2014, the Legislature created s. 20.058, F.S., establishing a comprehensive set of transparency and reporting requirements for DSOs and CSOs.³ Specifically, the law requires each DSO or CSO to annually submit the following information to the appropriate agency by August 1:⁴

- The name, mailing address, telephone number, and website address of the organization;
- The statutory authority or executive order that created the organization;
- A brief description of the mission of, and results obtained by, the organization;
- A brief description of the organization's plans for the next three fiscal years;
- A copy of the organization's ethics code; and
- A copy of the organization's most recent Internal Revenue Service (IRS) Form 990.⁵

Each agency receiving information from a DSO or CSO pursuant to law must make such information available to the public through the agency's website.⁶ If the organization maintains a website, the agency's website must provide a link to the organization's website.⁷ Any contract between an agency and a DSO or CSO must be contingent upon the DSO or CSO submitting and posting the required information to the agency as specified in law.⁸ If a DSO or CSO fails to submit the required information to the agency for two consecutive years, the agency head must terminate any contract between the agency and the DSO or CSO.⁹

By August 15 of each year, the agency must report to the Governor, President of the Senate, Speaker of the House of Representatives, and the Office of Program Policy Analysis and Government Accountability (OPPAGA) the information submitted by each DSO and CSO along with the agency's recommendation and supporting rationale to continue, terminate, or modify the agency's association with the DSO or CSO.10

¹ Chapter 617, F.S.

² See ss. 14.29(9)(a), 16.616(1), and 258.015(1), F.S. See also Rules of the Florida Auditor General, Audits of Certain Nonprofit Organizations (effective June 30, 2016), Rule 10.720(1)(b) and (d), available at http://www.myflorida.com/audgen/pages/pdf_files/10_700.pdf (Last visited February 28, 2019).

³ Section 3, ch. 2014-96, L.O.F.

⁴ Section 20.058(1), F.S.

⁵ The IRS Form 990 is an annual information return required to be filed with the IRS by most organizations exempt from federal income tax under 26 U.S.C. 501. 26 C.F.R. 1.6033-2.

⁶ Section 20.058(2), F.S.

⁷ *Id*.

⁸ Section 20.058(4), F.S.

⁹ Id

¹⁰ Section 20.058(3), F.S.

Any law creating, or authorizing the creation of a DSO or CSO must state that the authorization for the organization repeals on October 1 of the 5th year after enactment unless reviewed and reenacted by the Legislature. All DSOs and CSOs in existence prior to July 1, 2014, must be reviewed by the Legislature by July 1, 2019.¹¹

Audit Requirements

Section 215.981, F.S., requires each DSO or CSO with annual expenditures in excess of \$100,000 to provide for an annual financial audit of its accounts and records. An independent certified public accountant in accordance with rules adopted by the Auditor General must conduct the audit. The audit report must be submitted within nine months after the end of the fiscal year to the Auditor General and to the state agency the DSO or CSO supports. Additionally, the Auditor General may, pursuant to his or her own authority, or at the direction of the Legislative Auditing Committee, conduct audits or other engagements of a DSO's or CSO's accounts and records.

Ethics Code Requirement

Section 112.3251, F.S., requires DSOs and CSOs to adopt a code of ethics. The code of ethics must contain the specified standards of conduct and disclosures provided in ss. 112.313 and 112.3143(2), F.S.¹⁵ A DSO or CSO may adopt additional or more stringent standards of conduct and disclosure requirements and must post its code of ethics on its website.¹⁶

Florida Department of Agriculture and Consumer Services

The department supports and promotes Florida agriculture, protects the environment, safeguards consumers, and ensures the safety and wholesomeness of food.17 The following DSOs assist or support the department in carrying out its duties:

- **Friends of the Florida State Forests** Through community support, it assists the Florida Forest Service to expand opportunities for recreation (hunting, horseback riding, hiking, Off Highway Vehicle, etc.), environmental education, and forest management within Florida's state forests.
- **Forestry Arson Alert Association, Inc.** Through internal and external support, it helps reduce the incidence of wildland arson by making it possible to offer rewards for information leading to an arrest of arsonists. It also increases public awareness about wildland arson and the destruction it can cause.

¹¹ Section 20.058(5), F.S.

¹² The independent audit requirement does not apply to a DSO for a university, district board of trustees of a community college, or district school board. Additionally, the expenditure threshold for an independent audit is \$300,000 for a DSO for the Department of Environmental Protection and the Department of Agriculture and Consumer Services.

¹³ Section 215.981(1), F.S.

¹⁴ Section 11.45(3), F.S.

¹⁵ Some of the standards of conduct and disclosures in ss. 112.313 and 112.3143(2), F.S., include misuse of public position, solicitation or acceptance of gifts, unauthorized compensation, and voting conflicts.

¹⁶ Section 112.3251, F.S.

¹⁷ https://www.freshfromflorida.com/About/

• Florida Agricultural Museum - With the assistance of volunteers, it preserves Florida's agricultural past, interprets agricultural issues of yesterday, today, and tomorrow, and educates the public about those issues through enjoyable experiences such as guided horseback trail rides, farmers markets, and learning about Florida's rare heritage Cracker cattle, horses, and sheep.

- Florida Agriculture in the Classroom, Inc. The agriculture specialty license plate funds FAITC's ability to reach out to teachers and students in kindergarten through 12th grade with a website of more than 100 agriculture-related lessons and activities, teacher school garden workshops and related farm tours on how to use agriculture lessons to teach core subjects, school garden curricula and grants programs, and the elementary school reading program Florida Agriculture Literacy Day.
- Florida Agriculture Center and Horse Park Authority Through internal and external support, it is a recreational and sporting organization dedicated to developing an international facility with opportunities for equine, agriculture, livestock, recreation, and educational events.
- Living Healthy in Florida, Inc. Seventeen private sector partners work with numerous state agencies, individuals, organizations, and communities to share ideas and best practices to optimize health and wellness.
- Florida Beef Council, Inc. The federal Beef Promotion and Research Act was passed as part of the 1985 Farm Bill and provides the mission and the base for development of a producer-funded beef promotion and research program, the national Beef Checkoff Program, aimed at building demand for beef and beef products, both domestically and internationally. 18 The act required cattle producers to pay a fee, or "checkoff" on all sales of cattle to fund advertisements for the cattle industry. This act was challenged by cattle producers who disagreed with the content of those advertisements and brought action against the United States Department of Agriculture alleging that the government-required fee for advertising violated their First Amendment right to free speech. In response to this challenge, the Florida cattle industry worked with the Legislature to create the Beef Market Development Act in the event that they decided to hold a referendum to start a state "checkoff" program. The act included the Florida Beef Council, Inc., which was created to operate as a DSO within the department. Since the original federal challenge was not successful, the council was never set up as a DSO of the department. There is currently another challenge before the United States Court of Appeals for the Ninth Circuit, and therefore the Florida producers have requested that the DSO remain in statute in the event that they decide to move forward with a state program.¹⁹

The following CSO assists or supports the department in carrying out its duties:

• Friends of the Babcock Ranch Preserve, Inc. – The Babcock Ranch acquisition was one of the largest preservation purchases in the history of Florida and was made possible through the Babcock Ranch Preserve Act that was passed by the Legislature in 2006. The Act authorized the Babcock Ranch Preserve (preserve) as a working ranch and to protect regionally important water resources, diverse natural habitats, scenic landscapes and historic and cultural resources in southwest Florida. Public recreational opportunities include hunting,

¹⁸ https://www.beefboard.org/library/beefact_order.asp (Last visited February 28, 2019).

¹⁹ Information provided by the Department of Agriculture and Consumer Services on file in the Senate Agriculture office.

hiking, wildlife viewing, bicycling, fishing, camping and horseback riding.²⁰ Section 259.10521, F.S., authorizes the creation of a CSO to raise funds, request and receive grants, gifts, and bequests of money, acquire, receive, hold, invest, and administer, in its own name, securities, funds, objects of value, or other property, real or personal. It may also make expenditures to or for the direct or indirect benefit of the Babcock Ranch Preserve. The Friends of the Babcock Ranch Preserve, Inc., will be established when the sale agreement for the Babcock Ranch Preserve is completed. It is anticipated that it will be in place before the end of the year.²¹

III. Effect of Proposed Changes:

Section 1 amends s. 259.10521, F.S., to extend the repeal date for the Friends of the Babcock Ranch Preserve, Inc., which serves as the citizen support organization within the department from October 1, 2019 to October 1, 2024.

Section 2 amends s. 570.83, F.S., to remove the scheduled repeal date for the law governing the Florida Beef Council, Inc., which serves as the direct-support organization within the department.

Section 3 amends s. 570.691, F.S., to remove the scheduled repeal date for the law governing the following direct-support organizations within the department:

- Friends of the Florida State Forests
- Forestry Arson Alert Association, Inc.
- Florida Agricultural Museum
- Florida Agriculture in the Classroom, Inc.
- Florida Agriculture Center and Horse Park Authority
- Living Healthy in Florida, Inc.

Section 4 provides that this act shall take effect July 1, 2019.

IV. Constitutional Issues:

A.	Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

²⁰ April 4, 2013, analysis of CS/CS/SB 1628.

²¹ Information provided by the Department of Agriculture and Consumer Services on file in the Senate Agriculture office.

BILL: SPB 7062 Page 6 D. State Tax or Fee Increases: None. Ε. Other Constitutional Issues: None identified. ٧. **Fiscal Impact Statement:** A. Tax/Fee Issues: None. B. Private Sector Impact: Indeterminate. C. **Government Sector Impact:** Indeterminate. VI. **Technical Deficiencies:** None. VII. Related Issues: None. VIII. **Statutes Affected:** This bill amends the following sections of the Florida Statutes: 259.10521, 570.83, and 570.691 IX. **Additional Information:**

Committee Substitute – Statement of Changes: A.

(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.

575-02424A-19 20197062pb

A bill to be entitled An act relating to Department of Agriculture and Consumer Services citizen support organizations and direct-support organizations; amending s. 259.10521, F.S.; extending the scheduled repeal of the provisions governing the citizen support organizations operating to the benefit of the Babcock Ranch Preserve; amending s. 570.83, F.S.; abrogating the scheduled repeal of provisions governing the Florida Beef Council, Inc., 10 direct-support organization; amending s. 570.691, 11 F.S.; abrogating the scheduled repeal of provisions 12 relating to direct-support organizations of the 13 Department of Agriculture and Consumer Services; 14 providing an effective date. 15

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Be It Enacted by the Legislature of the State of Florida:

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Section 1. Subsection (4) of section 259.10521, Florida Statutes, is amended to read:

259.10521 Citizen support organization; use of property.-

(4) REPEAL.—This section is repealed October 1, 2024 2019, unless reviewed and saved from repeal by the Legislature.

Section 2. Subsection (14) of section 570.83, Florida Statutes, is amended to read:

570.83 Beef Market Development Act; definitions; Florida Beef Council, Inc., creation, purposes, governing board, powers, and duties; referendum on assessments imposed on gross receipts from cattle sales; payments to organizations for services; collecting and refunding assessments; vote on continuing the

Page 1 of 2

CODING: Words stricken are deletions; words underlined are additions.

Florida Senate - 2019 (PROPOSED BILL) SPB 7062

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20197062pb
30
    act; council bylaws .-
31
         (14) REPEAL.-This section is repealed October 1, 2019,
    unless reviewed and saved from repeal by the Legislature.
32
33
         Section 3. Subsection (10) of section 570.691, Florida
34
    Statutes, is amended to read:
35
         570.691 Direct-support organization.
36
         (10) This section is repealed October 1, 2019, unless
37
    reviewed and saved from repeal by the Legislature.
38
         Section 4. This act shall take effect July 1, 2019.
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575-02424A-19

Page 2 of 2

CODING: Words stricken are deletions; words underlined are additions.

THE FLORIDA SENATE

APPEARANCE RECORD

3-4-11		062
Meeting Date	Bill Nu	ımber (if applicable)
Topic DACS D30's	Amendment Ba	arcode (if applicable)
Name Emily Dude Buckley		
Job Title Leg. Aff. Director	Production and the second seco	
Address 405 S. Monne St Street	Phone <u>850-6/7-</u>	7700
Tallahassee Fl	32399 Email Mily buckly ofre	h hom Plowder cu
City	ZIP	
Speaking: For Against Information	Waive Speaking: In Support (The Chair will read this information in	Against to the record.)
Representing Dep. Ag + Consumer S	enices	
Appearing at request of Chair: Yes No	Г	XYes No

While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard.

This form is part of the public record for this meeting.

S-001 (10/14/14)

THE FLORIDA SENATE

APPEARANCE RECORD

3/4/19 (Deliver BOTH copies of this form to the Senator of	or Senate Professional Sta	aff conducting the	meeting)	SPB 7062
Meeting Date			_	Bill Number (if applicable)
Topic FDACS - DSO		• • • • • • • • • • • • • • • • • • •	Amendi	ment Barcode (if applicable)
Name <u>Sam Ard</u>	***************************************			
Job Title				
Address 207 W. Park Ave		Phone _	3505	776500
Street	32301	Email 54	rdDo	esrlegal, com
Speaking: State Against Information	Zip Waive Sp (The Chail	peaking:	In Su	
Representing Fla, Cattlemen's Assu	1			
Appearing at request of Chair: Yes No	Lobbyist registe	ered with Le	egislatu	re: Yes No

While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard.

This form is part of the public record for this meeting.

S-001 (10/14/14)

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 Agriculture								
BILL:	SPB 7064							
INTRODUCER:	For consideration by the Agriculture Committee							
SUBJECT:	Fracking							
DATE:	March 1, 20	19	REVISED:					
ANAL'	YST	STAFF Becker	F DIRECTOR	REFERENCE	Pre-meeting	ACTION		

I. Summary:

SPB 7064 amends s. 377.06, F.S., to define the term "fracking" as all stages of a well intervention performed by injecting large volumes of fluids at a high rate into a rock formation at pressures that exceed the fracture gradient of the rock formation in order to propagate hydraulic fractures. It specifies that this does not include other well intervention techniques, including conventional well stimulation or conventional workover procedures; techniques used for routine well work, well maintenance, or removal of formation damage due to drilling or production; or conventional acidizing techniques used to enhance, maintain, or restore the natural permeability of the formation.

The bill creates s. 377.2405, F.S., which states that fracking is prohibited in this state and that a permit for drilling or operating a well does not authorize fracking.

II. Present Situation:

Production of Conventional Versus Unconventional Oil and Gas Resources: The Use of Well Stimulation Techniques

Conventional oil and gas resources are found in permeable sandstone and carbonate reservoirs. Wells have historically been drilled vertically, straight down into a rock formation to extract conventional resources. Whereas conventional resources are found in concentrated underground locations, unconventional resources are highly dispersed through impermeable or "tight" rock

¹ Michael Ratner & Mary Tiemann, Cong. Research Serv., R 43148, An Overview of Unconventional Oil and Natural Gas: Resources and Federal Actions, 2 (Apr. 22, 2015), available at https://www.fas.org/sgp/crs/misc/R43148.pdf (last visited Jan. 28, 2019).

formations, such as shales and tight sands.2 To extract unconventional resources, drilling has generally shifted from vertical to horizontal.³

Well stimulation techniques are used in the production of both conventional and unconventional resources. The techniques can be focused solely on the wellbore (drilled hole) for maintenance and remedial purposes or can be used to increase production from the reservoir. The relatively recent development of horizontal or directional drilling in conjunction with the expanded use of well stimulation techniques has increased the production at oil or gas wells and has led to the profitable extraction of unconventional resources. The three main well stimulation techniques are hydraulic fracturing, acid fracturing, and matrix acidizing. Hydraulic fracturing and acid fracturing are commonly referred to as "fracking."

Hydraulic Fracturing

Hydraulic fracturing was developed in the 1940s to increase the production of conventional oil and gas resources. While the technique is not new, the composition of the fracturing fluids used in the process has evolved over time. Initially the fracturing fluids were oil-based and relied on a mixture of petroleum compounds, such as napalm and diesel fuels. Modern hydraulic fracturing involves a fracturing fluid that is composed of a base fluid, in most cases water; additives, each designed to serve a particular function; and a proppant (such as sand), which holds the fractures open during or following the treatment. The composition of the fracturing fluid varies depending on the permeability and brittleness of the reservoir rock. A hydraulic fracturing operation at a horizontal well involves a four-step process. The first step is the "stage," during which a portion of the well is isolated to focus the fracture fluid pressure. The second is the "pad," during which fracture fluid is injected, first without proppant, to initiate and propagate the fracture in the rock formation. The proppant is then added to keep the fractures open. The third stage is the "flush," during which fluid is injected without proppant to push any remaining proppant into the fractures. The fourth stage is the "flowback," during which the hydraulic fracturing fluids are removed and the fluid pressure dissipates.

 $^{^{2}}$ Id.

³ U.S. Energy Information Administration (EIA), *Hydraulically fractured horizontal wells account for most new oil and natural gas wells* (Jan. 30, 2018), https://www.eia.gov/todayinenergy/detail.php?id=34732 (last visited Jan. 28, 2019).

⁴ California Council on Science and Technology Lawrence Berkeley National Laboratory, *An Independent Assessment of Well Stimulation in California, vol. 1, Well stimulation technologies and their past, present, and potential future use in California*, 13–14 (January 2015) [hereinafter *CA Study*], *available at* https://ccst.us/wp-content/uploads/160708-sb4-vol-lpdf (last visited Feb. 28, 2019).

 $[\]frac{1}{5}$ *Id*. at 2.

⁶ *Id*. at 28.

⁷ Gallegos, T.J., and Varela, B.A., United States Geological Survey, *Trends in Hydraulic Fracturing Distributions and Treatment Fluids, Additives, Proppants, and Water Volumes Applied to Wells Drilled in the United States from 1947 through 2010—Data Analysis and Comparison to the Literature, Scientific Investigations Report 2014–5131, 1 (2015), available at http://pubs.usgs.gov/sir/2014/5131/pdf/sir2014-5131.pdf (last visited Feb. 28, 2019).

⁸ <i>Id.* at 7.

⁹ *Id.* at 1, 10–11, 303.

¹⁰ CA Study, at 48, available at https://ccst.us/wp-content/uploads/160708-sb4-vol-I.pdf (last visited Feb. 28, 2019).

¹¹ *Id.* at 42, 300. Flowback is defined as "fracturing fluid, perhaps mixed with formation water and traces of hydrocarbon, that flows back to the surface after the completion of hydraulic fracturing."

The U.S. Environmental Protection Agency (EPA) estimates that 25,000-30,000 new wells were drilled and hydraulically fractured annually in the United States between 2011 and 2014.12 In 2016, hydraulically fractured horizontal wells accounted for 69% of all oil and natural gas wells drilled in the U.S.13 The combination of horizontal drilling and hydraulic fracturing has contributed to increases in crude oil and natural gas production in the U.S.14

Acid Fracturing

Well stimulation techniques that use acid-based formulas are sometimes preferred in carbonate reservoirs. Acid fracturing is a well stimulation technique that uses acidic fluids. It can be an effective method for stimulating limestone formations. Well operators pump the acidic fluids into a well at a pressure that exceeds the fracture gradient and, thus, fractures the rock. The acid etches the walls of the fractures and eliminates the need to use a proppant because the fractures remain open after pressure is released. The produced fluids have a much lower acid content than the injected fluids because most of the acid that is injected is neutralized through a reaction with the rock. As compared to hydraulic fracturing, acid fracturing is generally more successful in carbonate reservoirs because of the relatively high degree of natural fractures present.

The purpose of an acid fracturing treatment is to create new or open existing fractures, and dissolve formation material, to create an irregular fracture surface that opens up new flow paths or enhances existing flow paths into the wellbore. As compared to hydraulic fracturing, acid fracturing results in fractures that are relatively short in length. One of the main factors that adversely affects acid fracture growth is fluid loss, or acid "leakoff." Acid leakoff can result in the enlargement of channels and natural fractures and can greatly increase the area from which fluid loss occurs, making fluid-loss control difficult and preventing acid from reaching untreated parts of the fracture. Description of the fracture.

¹² U.S. Environmental Protection Agency (EPA), *Hydraulic Fracturing for Oil and Gas: Impacts from the Hydraulic Fracturing Water Cycle on Drinking Water Resources in the United States*, 3-1 (Dec. 2016) [hereinafter *EPA Study*], *available at* https://cfpub.epa.gov/ncea/hfstudy/recordisplay.cfm?deid=332990 (last visited Feb. 28, 2019).

¹³ U.S. Energy Information Administration (EIA), *Hydraulically fractured horizontal wells account for most new oil and natural gas wells* (Jan. 30, 2019), https://www.eia.gov/todayinenergy/detail.php?id=34732 (last visited Feb. 28, 2019).

¹⁴ *Id.*

¹⁵ CA Study, at 56, available at https://ccst.us/wp-content/uploads/160708-sb4-vol-I.pdf (last visited Feb. 28, 2019).

¹⁶ Id. at 25; see generally Bing Hou, Ruxin Zhang, Mian Chen, Jiawie Kao, and Xin Liu, Investigation on Acid Fracturing Treatment in Limestone Formation Based on True Tri-Axial Experiment, 235 Fuel 473-484 (2019), available at https://www.sciencedirect.com/science/article/pii/S0016236118314273?via%3Dihub#bi005 (last visited Feb. 28, 2019).

¹⁷ CA Study, at 28.

¹⁸ *Id*. at 14.

¹⁹ *Id*. at 56.

²⁰ American Petroleum Institute, *Acidizing: Treatment in Oil and Gas Operations*, 1–3 (2014), *available at* http://www.api.org/~/media/files/oil-and-natural-gas/hydraulic-fracturing/acidizing-oil-natural-gas-briefing-paper-v2.pdf (last visited Feb. 28, 2019).

²¹ CA Study, at 56, available at https://ccst.us/wp-content/uploads/160708-sb4-vol-I.pdf (last visited Feb. 28, 2019).

²² Middle East & Asia Reservoir Review, vol. 4, *Stimulate the Flow*, 46 (Jan. 2003), *available at* https://www.slb.com/resources/publications/industry articles/mearr/num4 stimulate flow.aspx (last visited Feb. 28, 2019).

Matrix Acidizing

Well operators have been using matrix acidizing for over 100 years.²³ Drilling and production in oil and gas operations cause damage to the rock formation.²⁴ Formation damage can include the plugging of perforations or the plugging of the rock matrix by debris from the well and well operations, which restrict the flow of hydrocarbons into the wellbore.²⁵ Matrix acidizing is performed by pumping acidic fluids into a well at a pressure that does not exceed the fracture gradient.²⁶ Acidizing is often used for well maintenance and to remediate damage caused by well operation and drilling.²⁷ Operators use acid, which is very effective at dissolving carbonate minerals, to bypass formation damage around the well.²⁸ Most of this acid is neutralized due to reactions with the rock.²⁹ Additionally, various acids are used to clean residential water wells to loosen or dissolve debris so that it can be pumped out of the well.³⁰

If larger volumes of acid are injected into carbonate formations, matrix acidizing can be used to increase the permeability of the formation beyond the zone impacted by drilling or production activities.³¹ Matrix acidizing can result in stimulation of carbonate reservoir permeability beyond the region near the well.³² This technique is not commonly used for stimulation in unconventional reservoirs because it does not increase recovery enough in low permeability reservoirs to make production viable.³³ The penetration into the formation caused by matrix acidizing is typically less extensive than after use of a fracturing technique.³⁴ However, in carbonate reservoirs, matrix acidizing can create deeply penetrating channels, known as wormholes, and lead to deeper acid penetration into more permeable fractures of a naturally fractured reservoir.³⁵ Hydrochloric acid is commonly used for matrix acidizing in carbonate reservoirs.³⁶ To minimize the probability of acid entering into highly permeable sections of the formation, which could create channels into water-producing zones, careful treatment, design, and execution is required when performing a matrix acidizing treatment.³⁷

Production of Oil and Gas Resources in Florida

Northwest and South Florida are the major oil and gas producing areas in the state. Florida's first producing oil well was discovered in 1943 at a wellsite located near present-day Big Cypress Preserve.³⁸ Oil and gas resources were first discovered in Northwest Florida in 1970, in the town

²³ CA Study, at 69, available at https://ccst.us/wp-content/uploads/160708-sb4-vol-I.pdf (last visited Feb. 28, 2019).

²⁴ Middle East & Asia Reservoir Review, vol. 4, Stimulate the Flow, 42 (Jan. 2003).

 $^{^{25}}$ *Id*.

²⁶ CA Study, at 69, available at https://ccst.us/wp-content/uploads/160708-sb4-vol-I.pdf (last visited Feb. 28, 2019).

²⁷ *Id*. at 14.

²⁸ *Id*. at 69.

²⁹ *Id.* at 14.

³⁰ The Groundwater Association, *How Well Systems Are Cleaned*, http://wellowner.org/water-well-maintenance/residential-well-cleaning/ (last visited Jan. 29, 2019).

³¹ CA Study, at 14, available at https://ccst.us/wp-content/uploads/160708-sb4-vol-Lpdf (last visited Feb. 28, 2019).

³² *Id*. at 28.

³³ *Id.* at 14, 69.

³⁴ *Id.* at 30.

³⁵ *Id*.

³⁶ Middle East & Asia Reservoir Review, vol. 4, Stimulate the Flow, 42 (Jan. 2003).

³⁷ *Id.* at 44

³⁸ American Oil & Gas Historical Society, *First Florida Oil Well*, http://aoghs.org/states/first-florida-oil-well/ (last visited Jan. 29, 2019).

of Jay.39 Annual production of petroleum from these two regions peaked at more than 47 million barrels in 1978, but has subsequently decreased substantially, with annual statewide production dropping to less than 2 million barrels by 2017.40 Florida's natural gas production also peaked in the 1970s, and by 2009 statewide natural gas production had fallen to less than 1% of its 1978 record high.41 There are currently two active oil and gas fields in Northwest Florida, and seven active oil and gas fields in South Florida.42 While geologists believe that there may be oil and natural gas deposits off Florida's western coast, the state enacted a drilling ban for state waters in 1990 and, in 2006, Congress banned the leasing of federal offshore blocks within 125 miles of Florida's western coast until at least 2022.43 Additionally, federal law gives priority use of much of the area to the military for training.44 In 2018, the Florida constitution was amended to prohibit drilling for exploration or extraction of oil or natural gas on lands "beneath all state waters which have not been alienated and that lie between the mean high water line and the outermost boundaries of the state's territorial seas."

In 2018, there were 57 active producer wells in Florida.46 The Department of Environmental Protection's (DEP) 2018 Annual Production Report totaled natural gas production at 810,445 million cubic feet and oil production at 604,370 barrels in the state.47 Proven oil and gas reserves in Northwest and South Florida are composed of carbonate formations (limestone and dolomite reservoirs), which have naturally higher permeability than the tighter shale or similar formations.48 Rather than hydraulic fracturing, well operators in the state have generally preferred washing or flushing the formations, or other alternative methods, to open carbonate pathways and enhance recovery of oil and gas resources.⁴⁹

Regulation of Well Stimulation Techniques

Federal Regulation

There is limited direct federal regulation over oil and gas activities. In 2005, Congress passed the Energy Policy Act amending, in part, the Safe Drinking Water Act (SDWA) and the Clean Water Act (CWA).⁵⁰ The SDWA was amended to revise the definition of the term "underground injection" to specifically exclude the underground injection of fluids or propping agents (other than diesel fuels) pursuant to hydraulic fracturing operations.⁵¹ The CWA contains exemptions

³⁹ Lloyd, Jacqueline M., *Information Circular 107*, *Part I: 1988 and 1989 Florida Petroleum Production and Exploration*, 1 (1991), *available at* http://ufdc.ufl.edu/UF00001168/00001/pdf (last visited Feb. 28, 2019).

⁴⁰ EIA, Florida, *Profile Analysis: Petroleum*, http://www.eia.gov/state/analysis.php?sid=FL (last visited Feb. 28, 2019).

⁴¹ *Id*.

⁴² DEP, *State Production Data* (2018), *available at* https://floridadep.gov/water/oil-gas/documents/state-production-data (last visited Feb. 28, 2019).

⁴³ EIA, Florida, *Profile Analysis: Petroleum*, http://www.eia.gov/state/analysis.php?sid=FL (last visited Feb. 28, 2019); see Pub. L. No. 109-432, s. 104(a)(2), 120 Stat. 3003 (2006); see s. 377.242(1), F.S.

⁴⁴ EIA, Florida, *Profile Analysis: Petroleum*, http://www.eia.gov/state/analysis.php?sid=FL (last visited Feb. 28, 2019).

⁴⁵ FLA CONST. art. II, s. 7.

⁴⁶ DEP, *State Production Data* (2018), *available at* https://floridadep.gov/water/oil-gas/documents/state-production-data (last visited Feb. 28, 2019).

⁴⁷ *Id*.

⁴⁸ DEP, *Hydraulic Fracturing Background and Recommendations*, 1–3 (Sept. 29, 2011) *available at* http://news.caloosahatchee.org/docs/Dep_Fracturing_Response_130118.pdf (last visited Feb. 28, 2019).

 $^{^{50}}$ Energy Policy Act of 2005, H.R. 6, 109th Cong. (2005-2006).

⁵¹ See 42U.S.C. s. 300h(d) (2012).

from stormwater permitting requirements for oil and gas exploration production, processing, or treatment operations or transmission facilities.⁵² Although the 2005 Energy Policy Act broadened the exemptions to include "construction activities" in the definition of oil and gas exploration and production, any flows from oil and gas operations which are contaminated or come into contact with overburden, raw material, intermediate products, finished product, byproduct, or waste products remain regulated under the CWA.⁵³

In March of 2015, in an attempt to regulate hydraulic fracturing on federal and tribal lands, the Bureau of Land Management (BLM) published final rules governing hydraulic fracturing.⁵⁴ The rules were to take effect on June 24, 2015. However, the United States District Court for the District of Wyoming granted a preliminary injunction and the rule was stayed.⁵⁵ In June of 2016, the court held that the BLM lacked authority to regulate hydraulic fracturing and set aside the final rules.⁵⁶ The court's ruling was appealed to the United States Court of Appeals Tenth Circuit, which dismissed the appeal and remanded with directions to vacate the district court's opinion and dismiss the action without prejudice in light of the Bureau of Land Management's decision to rescind the final rules.⁵⁷

While direct regulation over well stimulation techniques at the federal level is limited, there are several federal statutes that regulate the indirect impacts of oil and gas extraction. The EPA's Oil and Gas Extraction Effluent Guidelines and Standards regulate wastewater discharges from field exploration, drilling, production, well treatment, and well completion activities.⁵⁸ The regulations apply to conventional and unconventional extraction, with the exception of extractions of coalbed methane.⁵⁹ These standards are incorporated into the CWA's NPDES regulatory framework.⁶⁰

⁵² 33 U.S.C. s 1342 (1)(2) (2012).

⁵³ 33 U.S.C. s. 1362(24) (2012); *NRDC v. U.S. EPA*, 526 F.3d 591, 599, 608 (9th Cir. 2008)(vacating an EPA rule implementing the 2005 amendment); William J. Brady, *Hydraulic Fracturing Regulation in the United States: The Laissez-faire Approach of the Federal Government and Varying State Regulations*, 7–8 (2012), *available at* http://www.law.du.edu/documents/faculty-highlights/Intersol-2012-HydroFracking.pdf (last visited Feb. 28, 2019). Oil and gas construction facilities remain subject to the CWA's permitting requirements for stormwater, and for discharging a pollutant into navigable waters, when applicable.

⁵⁴ Oil and Gas; Hydraulic Fracturing on Federal and Indian Lands, 80 Fed. Reg. 16,128-16,222 (Mar. 26, 2015). Under the final BLM regulations, the term "hydraulic fracturing" is defined as "those operations conducted in an individual wellbore designed to increase the flow of hydrocarbons from the rock formation to the wellbore through modifying the permeability of reservoir rock by applying fluids under pressure to fracture it. Hydraulic fracturing does not include enhanced secondary recovery such as water flooding, tertiary recovery, recovery through steam injection, or other types of well stimulation operations such as acidizing."

⁵⁵ State of Wyo. vs. U.S. Dept. of the Int., No. 2: 15-CB-043-SWS (D. Wyo. Sept. 30, 2015) (granting a preliminary injunction), available at http://www.wyd.uscourts.gov/pdfforms/orders/15-cv-043%20130%20order.pdf (last visited Feb. 28, 2019).

⁵⁶ State of Wyo. vs. U.S. Dept. of the Int., No. 2: 15-CV-043-SWS (D. Wyo. June 21, 2016), available at http://www.wyd.uscourts.gov/pdfforms/orders/15-cv-043-S%20Order.pdf (last visited Feb. 28, 2019).

⁵⁷ State of Wyo. vs. U.S. Dept. of the Int., No. 16-8068 (10th Cir. Sept. 21, 2017), available at https://www.ca10.uscourts.gov/opinions/16/16-8068.pdf (last visited Feb. 28, 2019).

⁵⁸ EPA, *Oil and Gas Extraction Effluent Guidelines, Rule Summary, available at* http://www.epa.gov/eg/oil-and-gas-extraction-effluent-guidelines (last visited Feb. 28, 2019).

⁵⁹ *Id*.

 $^{^{60}}$ *Id*.

Because oil and gas activities may result in the release of hazardous substances into the environment at or under the surface in a manner that may endanger public health or the environment, these activities are regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).⁶¹ While recovered petroleum or natural gas is exempt from the act, other hazardous substances that result from oil or gas production, such as fracturing fluids, are subject to CERCLA.⁶² If a release of such fluids occurs, the facility owner and operator could face liability under CERCLA.⁶³

To ensure that employees who may be exposed to hazardous chemicals in the workplace are aware of the chemicals' potential dangers, manufacturers and importers must obtain or develop Material Safety Data Sheets (MSDS) for hydraulic fracturing chemicals that are hazardous according to the Occupational Safety and Health Administration (OSHA) standards.⁶⁴ MSDS must be maintained for hazardous chemicals at each job site and must, at a minimum, include the chemical names of substances that are considered hazardous under the OSHA regulations.⁶⁵

Regulation in Other States

States have primary jurisdiction and authority over the regulation of oil and gas activities. Almost all states with economically viable production wells have extensive regulatory programs in place for permitting and monitoring oil and gas activities. Recent advances in technology and the widespread use of well stimulation techniques, particularly hydraulic fracturing, have motivated some states to update and revise their oil and gas regulations to specifically address such techniques or to ban certain techniques altogether. ⁶⁶

Vermont, New York, and Maryland prohibit hydraulic fracturing. In 2012, Vermont banned the practice of hydraulic fracturing.⁶⁷ In 2015, New York's Department of Environmental Conservation found that there were "no feasible or prudent alternatives [other than a ban which] would adequately avoid or minimize adverse environmental impacts and that address the scientific uncertainties and risks to public health from [high-volume hydraulic fracturing]." The Findings Statement effectively banned high-volume hydraulic fracturing in the state of New

⁶¹ 42 U.S.C. ss. 9601-9675 (2012); Adam Vann, Brandon J. Murrill, & Mary Tiemann, Cong. Research Serv., R 43152, *Hydraulic Fracturing: Selected Legal Issues*, 12 (Sept. 26, 2014), *available at* https://www.fas.org/sgp/crs/misc/R43152.pdf (last visited Feb. 28, 2019).

⁶² Adam Vann, Brandon J. Murrill, & Mary Tiemann, Cong. Research Serv., R 43152, *Hydraulic Fracturing: Selected Legal Issues*, 12–13 (Sept. 26, 2014).

⁶³ *Id.* at 13.

⁶⁴ *Id*. at 22.

⁶⁵ I.A

⁶⁶ See Hannah Wiseman, Untested Waters: The Rise of Hydraulic Fracturing in Oil and Gas Production and the Need to Revisit Regulation, 20 FORDHAM ENVTL. L. REV. 115 (2009); see also State of Wyo. vs. U.S. Dept. of the Int., No. 2: 15-CB-043-SWS at 40 (D. Wyo. Sept. 30, 2015) (showing a list of states with regulations that address hydraulic fracturing). ⁶⁷ 29 V.S.A. § 571; 29 V.S.A. § 503(30). The statute defines the term "hydraulic fracturing" as "the process of pumping a fluid into or under the surface of the ground in order to create fractures in rock for the purpose of the production or recovery of oil or gas."

⁶⁸ New York Department of Environmental Conservation, *Final Supplemental Generic Environmental Impact Statement on the Oil, Gas, and Solution Mining Regulatory Program: Regulatory Program for Horizontal Drilling and High-Volume Hydraulic Fracturing to Develop the Marcellus Shale and Other Low-Permeability Gas Reservoirs, Findings Statement, 42* (June 2015), *available at http://www.dec.ny.gov/docs/materials_minerals_pdf/findingstatehvhf62015.pdf (last visited Feb. 28, 2019).*

York.⁶⁹ In 2017, Maryland prohibited hydraulic fracturing for the exploration or production of oil or natural gas.⁷⁰

Regulation in Florida

In Florida, DEP has regulatory authority over oil and gas resources. The Division of Water Resource Management (division) within DEP oversees the permitting process for drilling production and exploration. DEP has adopted rules to implement and enforce the regulation of oil and gas resources. The division has jurisdiction and authority over all persons and property necessary to administer and enforce all laws relating to the conservation of oil and gas. Local government approval is required for drilling in tidal waters, near improved beaches, and within municipal boundaries. The division has jurisdiction and authority over all persons and property necessary to administer and enforce all laws relating to the conservation of oil and gas. The division has jurisdiction and authority over all persons and property necessary to administer and enforce all laws relating to the conservation of oil and gas.

When issuing permits for oil and gas exploration or extraction, the division is required to consider the nature, character, and location of the lands involved; the nature, type, and extent of ownership of the applicant; and the proven or indicated likelihood of the presence of oil, gas, or related minerals on a commercially viable basis. The Pis required to issue orders and adopt rules that ensure all precautions are taken to prevent the spillage of oil or any other pollutant in all phases of drilling for and extracting oil, gas, or other petroleum products. The purposes of such rules and orders include preventing the pollution of fresh, salt, or brackish waters or lands of the state, and preventing the escape of oil or other petroleum products from one stratum to another.

Before any person begins work other than environmental assessments or surveying at the site of a proposed drilling operation, a permit to drill is required and a preliminary site inspection must be conducted by DEP.⁷⁷ In oil and gas wells, the "casing" is a hollow steel pipe used to line the inside of the wellbore, and the casing is usually surrounded by a cement sheath.⁷⁸ An application to DEP for a permit to drill must include a proposed casing and cementing program and a location plat survey.⁷⁹ The regulations require the operator to case and cement wells in order to maintain well control and prevent degradation of other natural resources, including water.⁸⁰ Each

⁶⁹ See id. at 41. The Findings Statement defined the term "high-volume hydraulic fracturing" as "the stimulation of a well using 300,000 or more gallons of water as the base fluid for hydraulic fracturing for all stages in a well completion, regardless of whether the well is vertical or directional, including horizontal."

⁷⁰ Maryland Code § 14-107.1 (2017). Under Maryland law, the term "hydraulic fracturing" is defined as "a stimulation treatment performed on oil and natural gas wells in low-permeability oil or natural gas reservoirs through which specially engineered fluids are pumped at high pressure and rate into the reservoir interval to be treated, causing fractures to open."

⁷¹ Fla. Admin. Code, Chapters 62C-25–62C-30.

⁷² Section 377.21(1), F.S.

⁷³ Section 377.24, F.S.

⁷⁴ Section 377.241, F.S.

⁷⁵ Section 377.22(2), F.S.

⁷⁶ *Id*.

⁷⁷ Fla. Admin. Code R. 62C-26.003.

⁷⁸ FracFocus, *Well Construction & Groundwater Protection*, https://fracfocus.org/hydraulic-fracturing-how-it-works/casing (last visited Feb. 28, 2019).

⁷⁹ *Id*.

⁸⁰ Fla. Admin. Code R. 62C-27.005. The regulations specify standards for casing depth and pressure testing.

drilling permit is valid for one year from the date of approval.⁸¹ Before a permit is granted, the owner or operator is required to post a bond or other form of security for each well.⁸²

Before a well is used for its intended purpose, a permit to operate the well must be obtained. 83 Operating permits are valid for the life of the well, although each operating well and permit must be recertified every five years from the permit date. 84 Each application and subsequent recertification must include: the appropriate fee; bond or security coverage; a spill prevention and cleanup plan; flowline specifications and an installation plan; containment facility certification; and additional reporting and data submissions, such as driller's logs and monthly well reports. 85

A separate permit is not required for the performance of well stimulation techniques. Such techniques are regulated as workovers. BEP regulations define the term "workover" as: "an operation involving a deepening, plug back, repair, cement squeeze, perforation, hydraulic fracturing, acidizing, or other chemical treatment which is performed in a production, disposal, or injection well in order to restore, sustain, or increase production, disposal, or injection rates." An operator is required to notify DEP before commencing a workover procedure and must submit a revised well record to DEP within 30 days after the workover.

In December of 2013, DEP received a workover notice proposing use of an enhanced extraction procedure and requested that the company that submitted the notice not complete the procedure until DEP could conduct a review. ⁸⁹ When the company commenced with the procedure, DEP issued a cease and desist order. ⁹⁰ DEP fined the company \$25,000 for violating the cease and desist order. ⁹¹ It was concluded that the workover performed on the well involved hydraulic fracturing. ⁹²

A person that violates any statute, rule, regulation, order, or permit of the division relating to the regulation of oil or gas resources or who refuses inspection by the division is liable for damages caused to the air, waters, or property of the state; for the reasonable costs of tracing the source of

⁸¹ Fla. Admin. Code R. 62C-26.003.

⁸² Fla. Admin. Code R. 62C-26.002.

⁸³ Fla. Admin. Code R. 62C-26.008.

⁸⁴ *Id*.

⁸⁵ *Id*.

⁸⁶ See, e.g., s. 377.22, F.S. The division is required to adopt rules to "regulate the 'shooting,' perforating and chemical treatment of wells," and to "regulate secondary recovery methods, including the introduction of gas, air, water, or other substance into producing formations"; see e.g., s. 377.26, F.S. In regulating the vertical orientation of the well, the division is required to "take into account technological advances in drilling and production technology, including, but not limited to, horizontal well completions in the producing formation using directional drilling methods."

⁸⁷ Fla. Admin. Code R. 62C-25.002(61).

⁸⁸ Fla. Admin. Code R. 62C-29.006.

⁸⁹ State of Florida Department of Environmental Protection vs. Dan A. Hughes Company, L.P., OGC File No. 14-0012, 2 (April 8, 2014), available at https://www.doah.state.fl.us/FLAID/DEP/2014/DEP 14-0012 05162014 014716.pdf (last visited Feb. 28, 2019).

⁹⁰ *Id*.

⁹¹ *Id*.

⁹² ALL Consulting, LLC., *Expert Evaluation of the D.A. Hughes Collier-Hogan 20-3H*, *Well Drilling and Workover, Prepared for Florida Department of Environmental Protection*, 4 (2014), *available at* https://assets.documentcloud.org/documents/1507525/allconsulting.pdf (last visited Feb. 28, 2019).

the discharge and for controlling and abating the source and the pollutants; and for the costs of restoring the air, waters, and property. 93 Such persons are also subject to judicial imposition of a civil penalty of up to \$10,000 for each offense. 94 Each day during any portion of which a violation occurs constitutes a separate offense. 95

Local Regulation

While cities and counties do not operate oil and gas permitting programs in Florida, some, through their land use regulations or zoning ordinances, require special exceptions for oil and gas activities or limit oil and gas activities to certain zoning classifications. He authorizing oil and gas activities, local governments consider factors such as consistency with their comprehensive plan, injuries to communities or the public welfare, and compliance with zoning ordinances. DEP may not issue a permit for drilling within the corporate limits of a municipality unless the municipality first adopts a resolution approving the permit. Six municipalities (Estero, Bonita Springs, Coconut Creek, Cape Coral, Dade, and Zephyrhills) and thirteen counties (Alachua, Bay, Brevard, Broward, Citrus, Indian River, Martin, Miami-Dade, Osceola, Pinellas, St. Lucie, Volusia, Wakulla, and Walton) have banned one or more forms of well stimulation techniques by ordinance. Additionally, many other counties and cities have passed resolutions supporting various types of bans and moratoriums relating to well stimulation techniques.

Environmental Concerns

There are a variety of environmental concerns relating to well stimulation techniques. Potential impacts and concerns include: groundwater or surface water contamination; stress on water supplies; inadequate wastewater management and disposal; and air quality degradation. Because well stimulation techniques are applied to so many types of underground formations using a variety of methods and fluids, environmental impacts vary depending on factors such as the toxicity of the fluid used; the closeness of the fracture zone to underground drinking water;

⁹³ Section 377.37(1)(a), F.S.

⁹⁴ *Id*.

⁹⁵ *Id*.

⁹⁶ See, e.g., Lee County's Land Development Code §§ 34-1651 and 34-145(c).

⁹⁷ Id.

⁹⁸ Section 377.24(5), F.S.

⁹⁹ Village of Estero, Ordinance No. 2015-19; Bonita Spring's Land Development Code, Chapter 4, Article VI, Division 15, Section 4-1380; Coconut Creek's Land Development Code, Article IV, Section 13-1000; City of Cape Coral, Ordinance §3.23; City of Dade, Ordinance No. 2016-08; City of Zephyrhills, Ordinance No. 1310-16; Alachua County's Code of Ordinances, §77.13.5; Bay County's Land Development Regulation, §311; Brevard County's Code of Ordinances, §46-375; Citrus County's Code of Ordinances, §66-133; Indian River County's Code of Ordinances, §317.03; Osceola County's Land Development Code, §4.12.3; Broward County's Code of Ordinances, §27-193; Martin County's Code of Ordinances, §67.441; Miami-Dade County's Code of Ordinances, §33-437; Pinellas County's Code of Ordinances, §58-489; St. Lucie County's Code of Ordinances, Policy 6.1.5.7; Volusia County's Code of Ordinances, §50-42; Wakulla County's Code of Ordinances, §6-34; Walton County's Code of Ordinances, §9-156.

¹⁰⁰ See Food & Water Watch, Local Regulations Against Fracking, http://www.foodandwaterwatch.org/insight/local-resolutions-against-fracking#florida (last visited Feb. 28, 2019). The page shows a list of local governments that passed resolutions against fracking.

¹⁰¹ EPA, Unconventional Oil and Natural Gas Development, Providing Regulatory Clarity and Protections Against Known Risks, https://www.epa.gov/uog (last visited Feb 28, 2018).

the existence of a barrier between the fracture formation and other formations; and how wastewater is disposed of.¹⁰²

Water Quality

The EPA estimated that of the approximately 275,000 wells that have been hydraulically fractured in 25 states between 2000 and 2013, an estimated 21,900, or 8%, were within one mile of at least one public water system groundwater well or surface water intake. ¹⁰³ As a result of fracturing, sources of drinking water may be contaminated through the release of gas-phase hydrocarbons, in what is known as stray gas migration, if the well casing or cementing is too weak or if it fails. ¹⁰⁴ The EPA concluded that the "injection of hydraulic fracturing fluids into wells with inadequate mechanical integrity [may allow for] gases or liquids to move to groundwater sources." ¹⁰⁵ While concerns related to inadequate well casing or cementing are not unique to hydraulic fracturing, horizontally drilled, hydraulically fractured wells pose more production challenges because the well casing is subject to greater pressures. ¹⁰⁶

Mitigating measures, such as extending the casing farther below groundwater resources and pressure testing the well casing before the injection of fluids, may work to prevent well casing failures. Blowout preventers also help control and prevent pressure build-ups. Hydraulically fractured wells in shale formations are usually drilled deeper than vertical wells, which can lead to a greater vertical separation between the formation and the drinking water resource. Thousands of feet of rock layers typically overlay the produced portion of shale and serve as a barrier to contamination. The majority of Florida's public water supply is obtained from groundwater sources, such as the Floridan aquifer system. Areas in which oil and gas have been extracted have an upper confining unit that is generally greater than 100 feet, which may serve as a barrier to contamination.

Fractures created during hydraulic fracturing can intersect nearby wells or their fracture networks, resulting in the flow of fluids into those wells and to underground drinking water

¹⁰² Hannah Wiseman, *Untested Waters: The Rise of Hydraulic Fracturing in Oil and Gas Production and the Need to Revisit Regulation*, 20 FORDHAM ENVTL. L. REV. 115, 6 (2009).

¹⁰³ EPA Study, at 2-14, available at https://cfpub.epa.gov/ncea/hfstudy/recordisplay.cfm?deid=332990 (last visited Feb. 28, 2019).

¹⁰⁴ Avner Vengosh, Robert B. Jackson, Nathaniel Warner, Thomas Darrah, & Andrew Kondash, *A Critical Review of the Risks to Water Resources from Unconventional Shale Gas Development and Hydraulic Fracturing in the United States*, American Chemical Society, 48 Env. Sci. & Technol. 8334-8348, 8336 (Mar. 2014), *available at* http://pubs.acs.org/doi/abs/10.1021/es405118y (last visited February 28, 2018).

¹⁰⁵ EPA Study, at 10-3.

¹⁰⁶ Michael Ratner & Mary Tiemann, Cong. Research Serv., R 43148, *An Overview of Unconventional Oil and Natural Gas: Resources and Federal Actions*, 8 (Apr. 22, 2015).

¹⁰⁷ EPA Study, at 6-9, available at https://cfpub.epa.gov/ncea/hfstudy/recordisplay.cfm?deid=332990 (last visited Feb. 28, 2019).

¹⁰⁸ Michael Ratner & Mary Tiemann, Cong. Research Serv., R 43148, *An Overview of Unconventional Oil and Natural Gas: Resources and Federal Actions*, 8 (Apr. 22, 2015), *available at https://fas.org/sgp/crs/misc/R43148.pdf* (last visited Feb. 28, 2019).

¹⁰⁹ *Id*. at 7.

¹¹⁰ *Id*. at 8.

¹¹¹ DEP, Aquifers, https://fldep.dep.state.fl.us/swapp/Aquifer.asp (last visited Feb. 28, 2019).

¹¹² U.S. Geological Survey, *Conceptual Model of the Floridan*, http://fl.water.usgs.gov/floridan/conceptual-model.html (last visited Feb. 28, 2019).

resources. These "frac-hits" are more likely to occur if wells are close to each other or are on the same well pad. According to an EPA report, the likelihood of a frac-hit is less than 10% in hydraulically fractured wells more than 4,000 feet apart, while the likelihood is nearly 50% in wells that are less than 1,000 feet apart. In Florida, horizontal wells and associated drilling units that are deeper than 7,000 feet have more stringent spacing requirements.

Surface water contamination may occur because of the inadequate storage and disposal of produced water. Produced water is the water that comes back to the surface as part of the oil and gas production process, and has generally been found to contain salts, metals, organic compounds, radioactive materials, and hydraulic fracturing chemicals. ¹¹⁶ For a hydraulically fractured well, the produced water includes the fracturing fluids, or flowback. While the chemicals used will vary by region or between wells, some chemicals used in hydraulic fracturing are toxic. ¹¹⁷ It is estimated that approximately 10-40% of the volume of injected fracturing fluids return to the surface after hydraulic fracturing. ¹¹⁸ In most produced waters, the concentrations of toxic elements, such as radioactive radium, are positively correlated with salinity, which suggests that many of the potential water quality issues associated with produced waters may be attributable to the geochemistry of the brines within the shale formations. ¹¹⁹

As the use of hydraulic fracturing has increased, so has the volume of wastewater generated. Spills of produced water do occur and can result in large volumes or high concentrations of chemicals reaching groundwater sources. The EPA has reported that spills generally occur at 1-10% of hydraulically fractured or active wells. In Florida, any spill of waste material relating to oil or gas wells must be immediately reported to the division and the appropriate federal agencies, and the owner or operator is responsible for the costs of cleanup or other damage incurred. It

Water Supply

The amount of water used during the performance of a hydraulic fracturing treatment depends on factors such as the well depth, formation geology, and the composition of the fluids injected. In most cases, the large majority of the fracturing fluid is water, and each hydraulically fractured

¹¹³ EPA Study, at 6-71, available at https://cfpub.epa.gov/ncea/hfstudy/recordisplay.cfm?deid=332990 (last visited Feb. 28, 2019).

¹¹⁴ *Id*. at 10-18.

¹¹⁵ Fla. Admin. Code R. 62C-26.004(5).

¹¹⁶ EPA Study, at ES-33, available at https://cfpub.epa.gov/ncea/hfstudy/recordisplay.cfm?deid=332990 (last visited Feb. 28, 2019)

¹¹⁷ *Id.* at 9-1, 9-16; *see* FracFocus, *What Chemicals Are Used*, https://fracfocus.org/chemical-use/what-chemicals-are-used (last visited Feb. 28, 2019).

Avner Vengosh, Robert B. Jackson, Nathaniel Warner, Thomas Darrah, & Andrew Kondash, A Critical Review of the Risks to Water Resources from Unconventional Shale Gas Development and Hydraulic Fracturing in the United States, American Chemical Society, 48 Env. Sci. & Techol. 8334-8348, 8340 (2014).
 Id

¹²⁰ EPA Study, at ES-35, 10-3, available at https://cfpub.epa.gov/ncea/hfstudy/recordisplay.cfm?deid=332990 (last visited Feb. 28, 2019).

¹²¹ *Id.* at 10-9.

¹²² Section 377.371, F.S.

well can require thousands to millions of gallons of water. ¹²³ While the total water use for hydraulic fracturing is relatively low compared to other industrial uses of water, wells that are good candidates for such techniques are usually located near the same water source and, as a result, the collective impact of water withdrawals can be significant. ¹²⁴ Some states have implemented pilot projects evaluating the feasibility of reusing produced waters or other brackish or wastewaters. ¹²⁵ The reuse of wastewater, however, is often limited by the amount of wastewater that is available. ¹²⁶ The volume of produced water from a single well can be relatively small compared to the volume of water needed to fracture a well. ¹²⁷

Wastewater Management and Disposal

The majority of produced water is disposed of using injection wells. ¹²⁸ Injection wells are permitted under the Underground Injection Control (UIC) program. ¹²⁹ The goal of the UIC program is the effective isolation of injected fluids from underground sources of drinking water. ¹³⁰ Class II injection wells are designed for injecting fluids associated with the production of oil and natural gas, or fluids used to enhance hydrocarbon recovery. While the injection of fracturing fluids, unless the fluid contains diesel, is exempt from the UIC program, the wastewater from oil and gas operations is not exempt. ¹³¹ There are currently 22 permitted Class II UIC wells used for disposal in Florida. ¹³²

Another issue that is developing with the increase in the number of injection wells is the concern that the deep-well disposal of oil and gas production wastewater is responsible for seismic activity in certain areas. The Oklahoma Geological Survey determined that the primary suspected source of triggered seismicity is from the injection of produced water associated with oil and gas production in disposal wells. The likelihood of potentially inducing seismic events differs between regions, based on factors such as geology and the wastewaters produced. The likelihood of potentially inducing seismic events differs between regions, based on factors such as geology and the wastewaters produced.

¹²³ EPA Study, at 4-3, 4-11, available at https://cfpub.epa.gov/ncea/hfstudy/recordisplay.cfm?deid=332990 (last visited Feb. 28, 2019).

¹²⁴ Avner Vengosh, Robert B. Jackson, Nathaniel Warner, Thomas Darrah, & Andrew Kondash, *A Critical Review of the Risks to Water Resources from Unconventional Shale Gas Development and Hydraulic Fracturing in the United States*, American Chemical Society, 48 Env. Sci. & Techol. 8334-8348, 8343 (2014); Hannah Wiseman, *Risk and Response in Fracturing Policy*, 84 UNV. OF COL. L. REV. 729-817, 776 (2009).

¹²⁵ Hannah Wiseman, Risk and Response in Fracturing Policy, 84 UNV. OF COL. L. REV. 729-817, 770 (2009).

¹²⁶ EPA Study, at 10-6, available at https://cfpub.epa.gov/ncea/hfstudy/recordisplay.cfm?deid=332990 (last visited Feb. 28, 2019).

¹²⁷ *Id*.

¹²⁸ *Id.* at 8-3.

¹²⁹ EPA, Underground Injection Control, General Information About Injection Wells, https://www.epa.gov/uic/general-information-about-injection-wells (last visited Feb. 28, 2019).

 $^{^{130}}$ *Id*

¹³¹ Watershed Council, *Regulations and Exemptions*, https://www.watershedcouncil.org/hydraulic-fracturing---regulations-and-exemptions.html (last visited Feb, 28, 2019).

¹³² Email from Kevin Cleary, Director of Legislative Affairs, DEP, RE: Class II Injection Wells in FL (Feb. 11, 2019).

¹³³ See Peter Folger & Mary Tiemann, Cong. Research Serv., R 43836, *Human-Induced Earthquakes from Deep-Well Injection: A Brief Overview* (Sept. 30, 2016), *available at* https://www.fas.org/sgp/crs/misc/R43836.pdf (last visited Feb. 28, 2019).

¹³⁴ Oklahoma Geological Survey, *Statement on Oklahoma Seismicity*, 1 (Apr. 21, 2015), http://wichita.ogs.ou.edu/documents/OGS Statement-Earthquakes-4-21-15.pdf (last visited Feb. 28, 2018).

¹³⁵ Tanya Gallegos, Brian Varela, Seth Haines, & Mark Engle, *Hydraulic Fracturing Water Use Variability in the United States and Potential Environmental Implications*, Water Resour. Res., 5839–5845, 5844 (2015), *available at* https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1002/2015WR017278 (last visited Feb. 28, 2019).

Additionally, in some states, the produced water is being sent to treatment facilities that are not equipped to treat wastewater from hydraulically fractured wells.¹³⁶ In June of 2016, the EPA, under the authority of the CWA, published final rules for the oil and gas extraction category.¹³⁷ The rules establish pretreatment standards that prevent the discharge of pollutants in wastewater from onshore, unconventional oil and gas facilities to publicly owned treatment works.¹³⁸ A voluntary remand for the final rule is currently in effect.¹³⁹

Air Quality

The key aerial emissions associated with unconventional oil and gas production include methane (the main component of natural gas and a potent greenhouse gas), volatile organic compounds (VOCs), nitrogen oxides, sulfur dioxide, particulate matter, and various hazardous air pollutants. In 2012, the EPA issued the first federal air standards for hydraulically fractured natural gas wells. In New Source Performance Standards required reductions in VOC emissions from hydraulically fractured natural gas wells.

In May of 2016, the EPA issued three rules which together sought to curb emissions of methane, VOCs, toxins, and air pollutants, such as benzene, from new, reconstructed, and modified oil and gas sources. ¹⁴³ The final rule on new and modified sources required compressor stations to monitor leaks, also known as "fugitive emissions," and required owners or operators to find and repair such leaks, which can be a significant source of both methane and VOC pollution. ¹⁴⁴ The

¹³⁶ Hannah Wiseman, *Risk and Response in Fracturing Policy*, 84 UNV. OF COL. L. REV. 729-817, 768-769 (2009), *available at* http://lawreview.colorado.edu/wp-content/uploads/2013/11/11.-Wiseman_For-Printer_s.pdf (last visited Feb. 28, 2019).

¹³⁷ Effluent Limitations Guidelines and Standards for the Oil and Gas Extraction Point Source Category, 81 Fed. Reg. 41845–41857 (June 3, 2016), *available at* https://www.govinfo.gov/content/pkg/FR-2016-06-28/pdf/2016-14901.pdf (last visited Feb. 28, 2019).

¹³⁸ EPA, *Unconventional Extraction in the Oil and Gas Industry*, http://www2.epa.gov/eg/unconventional-extraction-oil-and-gas-industry (last visited Feb. 28, 2019).

¹³⁹ Effluent Limitations Guidelines and Standards for the Oil and Gas Extraction Point Source Category-Implementation Date Extension, 81, Fed. Reg. 88126–88127 (Dec. 7, 2016), *available at* https://www.govinfo.gov/content/pkg/FR-2016-12-07/pdf/2016-29338.pdf (last visited Feb. 28, 2019). The rule extended the compliance date to August 29, 2019, for existing sources that were lawfully discharging.

¹⁴⁰ Michael Ratner & Mary Tiemann, Cong. Research Serv., R 43148, An Overview of Unconventional Oil and Natural Gas: Resources and Federal Actions, 9 (Apr. 22, 2015); see Richard Lattanzio, R 42986, Methane and Other Air Pollution Issues in Natural Gas Systems (Nov. 5, 2018), available at https://fas.org/sgp/crs/misc/R42986.pdf (last visited Feb. 28, 2019).

¹⁴¹ Michael Ratner & Mary Tiemann, Cong. Research Serv., R 43148, *An Overview of Unconventional Oil and Natural Gas: Resources and Federal Actions*, 14 (Apr. 22, 2015).

¹⁴² EPA, Controlling Air Pollution from the Oil and Natural Gas Industry, https://www.epa.gov/controlling-air-pollution-oil-and-natural-gas-industry (last visited Feb. 28, 2019).

¹⁴³ Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources, 81 Fed. Reg. 35824—35942 (June 3, 2016), available at https://www.govinfo.gov/content/pkg/FR-2016-06-03/pdf/2016-11971.pdf (last visited Feb. 28, 2019); Source Determination for Certain Emission Units in the Oil and Natural Gas Sector, 81 Fed. Reg. 35622—35634 (June 3, 2016), available at https://www.govinfo.gov/content/pkg/FR-2016-06-03/pdf/2016-11968.pdf (last visited Feb 28, 2019); Federal Implementation Plan for True Minor Sources in Indian Country in the Oil and Natural Gas Production and Natural Gas Processing Segments of the Oil and Natural Gas Sector; Amendments to the Federal Minor New Source Review Program in Indian Country To Address Requirements for True Minor Sources in the Oil and Natural Gas Sector, 81 Fed. Reg. 35944—35981 (June 3, 2019), available at https://www.govinfo.gov/content/pkg/FR-2016-06-03/pdf/2016-11969.pdf (last visited Feb. 28, 2019).

¹⁴⁴ EPA, *EPA's Actions to Reduce Methane Emissions from the Oil and Gas Industry: Final Rules and Draft Information Collection Request*, 2 (2016), *available at* https://www.epa.gov/sites/production/files/2016-09/documents/nsps-overview-fs.pdf (last visited Feb. 28, 2019).

rule phased in requirements for a process known as "green completion" to capture aerial emissions from hydraulically fractured wells. ¹⁴⁵ The EPA expects that implementation of the rule will reduce air pollutants and toxins, as well as provide health benefits related to reductions in fine particle pollution and ozone toxics, along with improvements in visibility. ¹⁴⁶ In October of 2018, the EPA proposed clarifications and amendments regarding details of the rule's implementation. ¹⁴⁷

III. Effect of Proposed Changes:

Section 1 amends s. 377.06 to define the term "fracking" as all stages of a well intervention performed by injecting large volumes of fluids at a high rate into a rock formation at pressures that exceed the fracture gradient of the rock formation in order to propagate hydraulic fractures. It specifies that this does not include other well intervention techniques, including conventional well stimulation or conventional workover procedures; techniques used for routine well work, well maintenance, or removal of formation damage due to drilling or production; or conventional acidizing techniques used to enhance, maintain, or restore the natural permeability of the formation.

Section 2 creates s. 377.2405, F.S., which states that fracking is prohibited in this state and that a permit for drilling or operating a well in this state does not authorize fracking.

Section 3 provides that the bill takes effect July 1, 2019.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

¹⁴⁵ *Id.* at 3.

¹⁴⁶ *Id*. at 4.

¹⁴⁷ Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources Reconsideration, 83 Fed. Reg. 52056–52107 (Oct. 15, 2018), available at https://www.govinfo.gov/content/pkg/FR-2018-10-15/pdf/2018-20961.pdf (last visited Feb. 28, 2019); see EPA, EPA Proposes Amendments to the 2016 New Source Performance Standards for the Oil and Natural Gas Industry: Fact Sheet (2018), available at https://www.epa.gov/sites/production/files/2018-09/documents/oil and gas technical proposal fact sheet.9.11.18 0.pdf (last visited Feb. 28, 2019).

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D.	State	lav or	$-\Delta\Delta$	Increases:
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None.

E. Other Constitutional Issues:

None identified.

V. Fiscal Impact Statement:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

The bill may have an impact on the private sector, as it prohibits certain techniques used to increase production or recovery from an oil or gas well.

C. Government Sector Impact:

DEP will need to revise existing rules to implement the prohibition of fracking.

VI. Technical Deficiencies:

None.

VII. Related Issues:

None.

VIII. Statutes Affected:

This bill substantially amends section 377.19 of the Florida Statutes.

This bill creates section 377.2405 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.

FOR CONSIDERATION By the Committee on Agriculture

575-02367-19 20197064pb

A bill to be entitled

An act relating to fracking; amending s. 377.19, F.S.;

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defining the term "fracking"; creating s. 377.2405, F.S.; prohibiting fracking in this state; providing that permits for drilling or operating a well do not authorize fracking; providing an effective date.

Be It Enacted by the Legislature of the State of Florida:

Section 1. Present subsections (5) through (32) of section 377.19, Florida Statutes, are redesignated as subsections (6) through (33), respectively, and a new subsection (5) is added to that section, and present subsection (5) of that section is amended, to read:

377.19 Definitions.—As used in ss. 377.06, 377.07, and 377.10-377.40, the term:

(5) "Fracking" means all stages of a well intervention performed by injecting large volumes of fluids at a high rate into a rock formation at pressures that exceed the fracture gradient of the rock formation in order to propagate hydraulic fractures. The term does not include other well intervention techniques, including conventional well stimulation or conventional workover procedures; techniques used for routine well cleanout work, well maintenance, or removal of formation damage due to drilling or production; or conventional acidizing techniques used to enhance, maintain, or restore the natural permeability of the formation.

(6) "Gas" means all natural gas, including casinghead gas, and all other hydrocarbons not defined as oil in subsection

Page 1 of 2

 ${\tt CODING:}$ Words ${\tt stricken}$ are deletions; words ${\tt \underline{underlined}}$ are additions.

Florida Senate - 2019 (PROPOSED BILL) SPB 7064

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575-02367-19
                                                              20197064pb
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     (16) \frac{(15)}{}.
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          Section 2. Section 377.2405, Florida Statutes, is created
32
    to read:
33
          377.2405 Fracking.-Fracking is prohibited in this state. A
34
    permit for drilling or operating a well does not authorize
35
    fracking.
36
         Section 3. This act shall take effect July 1, 2019.
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Page 2 of 2

CODING: Words stricken are deletions; words underlined are additions.

(Deliver BOTH copies of this form to the Senator or Senate Profe	essional Staff conducting the meeting) \$37064
Meeting Date	Bill Number (if applicable)
Topic TIACKING	Amendment Barcode (if applicable)
Name HERMAN CMCREATH	
Job Title FINANCIAL SERSTAND TE	Tined
Address 552 ADRIGE AVE	Phone 23 608 8897
Winter HAVEN, F133880 City State 7in	Email NDB PEI Blomail
Speaking: For Against Information Wa	aive Speaking: In Support Against
Representing UAW Terrnees	ne Chair will read this information into the record.)
Appearing at request of Chair: Yes No Lobbyist	registered with Legislature: Yes No
While it is a Senate tradition to encourage public testimony, time may not per meeting. Those who do speak may be asked to limit their remarks so that as	rmit all persons wishing to speak to be heard at this many persons as possible can be heard.
This form is part of the public record for this meeting.	S-001 (10/14/14)

3 4 20 9 (Deliver BOTH copies of this form to the Senator or Senate Professional St	taff conducting the meeting) SB 7064
Meeting Date	Bill Number (if applicable)
Topic Fracking	
Name Tava Bryant	Amendment Barcode (if applicable)
Job Title Disparch Clerc	
Address 205 NE 44th Otreet	Phone 352-219-7784
Gainesville FL 32641	Email Voryant 1935 Comail. Com
Speaking: For Against Information Waive Sp	
Representing Solf	r will read this information into the record.)
Appearing at request of Chair: Yes No Lobbyist registe	ered with Legislature: Yes No
While it is a Senate tradition to encourage public testimony, time may not permit all preeting. Those who do speak may be asked to limit their remarks so that as many preeting.	
This form is part of the public record for this meeting.	S-001 (10/14/14)

(Deliver BOTH copies of this form to the Senator	or Senate Professional Staff conducting the meeting)
Topic Land	Bill Number (if applicable)
Name Dontavia Brown	Amendment Barcode (if applicable)
Job Title Transit Operator	
Address 710 NW 16th Ave	Phone 352-514-0709
City State	32601 Email Ochnun 0709@ gmayl.
Speaking: For Against Information	Waive Speaking: In Support Against
RepresentingSelf	(The Chair will read this information into the record.)
Appearing at request of Chair: Yes No	Lobbyist registered with Legislature: Yes No
While it is a Senate tradition to encourage public testimony, time meeting. Those who do speak may be asked to limit their remarks	nay not permit all persons wishing to speak to be heard at this s so that as many persons as possible can be heard.
This form is part of the public record for this meeting.	S-001 (10/14/14)

if the the The Florida Senate

Meeting Date	<u> 5 13 7064</u>
Name Desmond L. Grimes	Bill Number (if applicable) Amendment Barcode (if applicable)
Job Title Transit operator	
Address 125 Redwood Rd	Phone 352 328-7918
$\frac{Ocala}{City} \qquad \qquad Fl \qquad 34472$ $State \qquad \qquad Zip$ Speaking: \square For \square Against \square Information Waive Sp	Email Desmond Singes Vahoo Deaking: In Support Against Twill read this information into the record.)
Representing SelF	
Appearing at request of Chair: Yes No Lobbyist registe	ered with Legislature: Yes No
While it is a Senate tradition to encourage public testimony, time may not permit all بر meeting. Those who do speak may be asked to limit their remarks so that as many p	persons wishing to speak to be heard at this persons as possible can be heard.
This form is part of the public record for this meeting.	S-001 (10/14/14)

TO BE THE PLORIDA SENATE

(Deliver BOTH copies of this form to the Senator or Senate Professional State Meeting Date	aff conducting the meeting) SB 7064 Bill Number (if applicable)
Topic Fracking	Amendment Barcode (if applicable)
Name NINA Stephens	
Job Title Transit Operator	
Address Street Street	Phone 352-28/-9/94
	Email <u>Mastephews 36000 gm./l.co</u> beaking: In Support Against will read this information into the record.)
Representing Self	•
Appearing at request of Chair: Yes No Lobbyist registe	ered with Legislature: Yes No
While it is a Senate tradition to encourage public testimony, time may not permit all preeting. Those who do speak may be asked to limit their remarks so that as many p	persons wishing to speak to be heard at this persons as possible can be heard.
This form is part of the public record for this meeting.	S-001 (10/14/14)

4 – May – 1 G (Deliver BOTH copies of this form to the Senator or Senate Professional	I Staff conducting the meeting) SPB 7064
Meeting Date	Bill Number (if applicable)
Topic Fracking Bar Name Ken Hays	Amendment Barcode (if applicable)
Job Title retired	
Address 1935 Nanticoke Cinde	Phone <u>850 - 980 - 7053</u>
Tallahasee FL 32303	_ Email Kmh Barin @gmail. con
Speaking: For Against Information Waive	Speaking: In Support Against pair will read this information into the record.)
Representing	
Appearing at request of Chair: Yes No Lobbyist regis	stered with Legislature: Yes No
While it is a Senate tradition to encourage public testimony, time may not permit a meeting. Those who do speak may be asked to limit their remarks so that as man	all persons wishing to speak to be heard at this by persons as possible can be heard.
This form is part of the public record for this meeting.	S-001 (10/14/14)

APPEARANCE RECORD

(Deliver BOTH copies of this form to the Senator or Sen	ate Professional Staff conducting the meeting)
Meeting Date Tania	Bill Number (if applicable)
Topic OUT YACI M S	Amendment Barcode (if applicable)
Name IM atum	
Job Title	
Address 914 5W RIVELLAND CT	Phone 3 80 454 - 19/6
City State	38 Emailgem Gintatum, het
Speaking: For Against Information	Waive Speaking: In Support Against
Representing Our Santa Fe Rive	(The Chair will read this information into the record.)
Appearing at request of Chair: Yes No Lob	obyist registered with Legislature: Yes No
While it is a Senate tradition to encourage public testimony, time may meeting. Those who do speak may be asked to limit their remarks so	not permit all persons wishing to speak to be heard at this that as many persons as possible can be heard.

This form is part of the public record for this meeting.

APPEARANCE RECORD
342019 (Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting) Sh HOLH
Meeting Date Bill Number (if applicable)
Topic Amendment Barcode (if applicable)
Name KRISTIN RUBIN
Job Title
Address 26280 NW 206 PL Phone 2055823800
HIGH SPRINGS 7L 32643 Email rubinka 2591@quid
Speaking: For Against Information Waive Speaking: In Support Against
Speaking: Against Information Waive Speaking: In Support Against (The Chair will read this information into the record.)
Representing Ow SANTA FE RIVER. ORG
Appearing at request of Chair: Yes No Lobbyist registered with Legislature: Yes No
While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard.
This form is part of the public record for this meeting. S-001 (10/14/14)

3-4-14	(Boliver Bo TT copies of this form to the denati	or Seriale Professional St	tall conducting the meeting)	COR TALLY
Meeting Date	-			Bill Number (if applicable)
Topic FRACKI	v q		Amend	ment Barcode (if applicable)
Name HOWARD	KESSLER			
Job TitleM b				
Address 408	PLANTATION Rd		Phone 850 s	97 3856
	AHASSEE FL. State	32303 Zip	Emailhoumn 2	howardkessleeicon
Speaking: For	AgainstInformation		peaking:In Su ir will read this informa	
Representing	Physicians for Socia	el Responsi	bility	
Appearing at request	of Chair: Yes No	Lobbyist registe	ered with Legislatu	ıre: Yes No
While it is a Senate tradition meeting. Those who do sp	on to encourage public testimony, tin leak may be asked to limit their rema	ne may not permit all arks so that as many	persons wishing to sp persons as possible o	eak to be heard at this an be heard.
This form is part of the p	ublic record for this meeting.			S-001 (10/14/14)

3/6	TOGET
√ Meeting Date	Bill Number (if applicable)
Topic Fracting Ban	Amendment Barcode (if applicable)
Name Marc Freeman	
Job Title Emeritus Professor	
Address 5143 Pcicle 7111	Phone 850 562-1335
City State Speaking: For Against Information	Brail From Concasting Zip Waive Speaking: In Support Against (The Chair will read this information into the record.)
Representing Seff	
Appearing at request of Chair: Yes No	Lobbyist registered with Legislature: Yes No
While it is a Senate tradition to encourage public testimony, to meeting. Those who do speak may be asked to limit their rem	ime may not permit all persons wishing to speak to be heard at this narks so that as many persons as possible can be heard.
This form is part of the public record for this meeting.	S-001 (10/14/14)

Meeting Date	e Senator of Senate Professiona	Bill Number (if applicable)
Topic	The state of the s	Amendment Barcode (if applicable)
Name Christine Campbell		
Job Title intern at rethink energy flon	id a	
Address 404 Station avenue (permanen	t address)	Phone <u>215-514-4184</u>
City PA	19038	Email <u>Christine @rethinkenergy florida.or</u>
Speaking: For Against Information		Speaking: In Support Against nair will read this information into the record.)
Representing Re Think Energy Florid	a	
Appearing at request of Chair: Yes No	Lobbyist regi	stered with Legislature: Yes No
While it is a Senate tradition to encourage public testimon meeting. Those who do speak may be asked to limit their	ny, time may not permit a r remarks so that as mar	all persons wishing to speak to be heard at this ny persons as possible can be heard.
This form is part of the public record for this meeting	7.	S-001 (10/14/14)

3-4-19 (Deliver BOTH copies of this form to the Senator	or Senate Professional Staff conducting the meeting)
Meeting Date	Bill Number (if applicable)
Topic	Amendment Barcode (if applicable)
Name Jake Blaut	
Job Title Development Coordinator	
Address 400 Hayden Rd. Apt. 127	Phone (513) 703-32≥1
Tallahassee FL City State	32304 Email jake Grethinkenergy Floridas
Speaking: For Against Information	Waive Speaking: In Support Against (The Chair will read this information into the record.)
Representing <u>Rethink Energy Florida</u>	
Appearing at request of Chair: Yes No	Lobbyist registered with Legislature: Yes No
While it is a Senate tradition to encourage public testimony, time meeting. Those who do speak may be asked to limit their remark	e may not permit all persons wishing to speak to be heard at this ks so that as many persons as possible can be heard.
This form is part of the public record for this meeting.	S-001 (10/14/14)

3-4-17	or or Senate Professional Staff conducting the meeting)
Meeting Date	Bill Number (if applicable)
Topic Fracking news to include Mastif	acidizing in definition Amendment Barcode (if applicable)
Name Brian Lee	
Job Title 664,57	
Address 1203 Buckingham Dr.	Phone \$50.766-7309
Tallehesser FL	Phone \$50-766-7309 32308 Email Floridge org
Speaking: For Against Information	Waive Speaking: In Support Against (The Chair will read this information into the record.)
Representing Floridians AgrinsT +	Fracking
Appearing at request of Chair: Yes 1 No	Lobbyist registered with Legislature: Yes No
While it is a Senate tradition to encourage public testimony, timeeting. Those who do speak may be asked to limit their rema	ne may not permit all persons wishing to speak to be heard at this arks so that as many persons as possible can be heard.
This form is part of the public record for this meeting.	S-001 (10/14/14)

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting)	700
Meeting Date Bill Nu	mber (if applicable)
Topic Ban Fracking Amendment Ba	rcode (if applicable)
Name Michelle Allen	
Job Title Senior Florida Organizer	
Address 2655 6th Are S Phone 727-217-	5135
Street Rel F1 33712 Email Mallen 6	Demuter
City State Zip	Dré
Speaking: For Against Information Waive Speaking: In Support (The Chair will read this information into	Against of the record)
Representing Food & Water Watch	s the record.y
Appearing at request of Chair: Yes No Lobbyist registered with Legislature:	Yes No
While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speak to limeeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be h	be heard at this neard.
This form is part of the public record for this meeting.	S-001 (10/14/14)

Meeting Date (Deliver BOTH copies of this form to the Senator or Senate Professional S	Staff conducting the meeting) Staff conducting the meeting) Bill Number (if applicable)
Topic Fracking Bour Name Any Datz	Amendment Barcode (if applicable)
Job Title	850
Address	Phone 322-759 P
Street Tallahassee FL 32303 City State Zip	Email analicality
Speaking: For Against Information Waive S	Speaking: In Support Against air will read this information into the record.)
Representing Euviron matel Caucus	of Fi.
Appearing at request of Chair: Yes No Lobbyist register	tered with Legislature: Yes No
While it is a Senate tradition to encourage public testimony, time may not permit al meeting. Those who do speak may be asked to limit their remarks so that as many	Il persons wishing to speak to be heard at this persons as possible can be heard.
This form is part of the public record for this meeting.	S-001 (10/14/14)

Meeting Date (Deliver BOTH copies of this form to the Senator	or Senate Professional Staff conducting the meeting) Bill Number (if applicable)
Topic Fracking	Amendment Barcode (if applicable)
Name Dennis L. Scott	,
Job Title <u>Ve Tired</u>	
Address 3/60 Nathaniel Tr.	Phone (850)228-7825
City State	B2311 Email velogojuson con
Speaking: For Against Information	Waive Speaking: In Support Against (The Chair will read this information into the record.)
Representing <u>seff</u>	
Appearing at request of Chair: Yes No	Lobbyist registered with Legislature: Yes No
While it is a Senate tradition to encourage public testimony, time meeting. Those who do speak may be asked to limit their remark	may not permit all persons wishing to speak to be heard at this ks so that as many persons as possible can be heard.
This form is part of the public record for this meeting.	S-001 (10/14/14)

Meeting Date	Bill Number (if applicable)
Topic TRACKING	Amendment Barcode (if applicable)
Name META CALDER	
Job Title RETIRED	
Address 3740 RAVINE DR.	Phone 850-228-5900
TALL. FL. City State	32312 Email
Speaking: For Against Information	Waive Speaking: In Support Against (The Chair will read this information into the record.)
Representing <u>ReTHINK SNERGY</u> FL	LA.
Appearing at request of Chair: Yes No	Lobbyist registered with Legislature: Yes No
While it is a Senate tradition to encourage public testimony, time in meeting. Those who do speak may be asked to limit their remarks	may not permit all persons wishing to speak to be heard at this s so that as many persons as possible can be heard.
This form is part of the public record for this meeting.	S-001 (10/14/14)

3/4/19 (Deliver BOTH copies of this form to the Senator	or Senate Professional Staff conducting the meeting)
Meeting Date	Bill Number (if applicable)
Topic <u>Rechine</u>	Amendment Barcode (if applicable)
Name Vatereici Thomas	
Job Title DCNF - Board	
Address 2985 Teton InD	Phone
Street Ha.	323 <i>0</i> Email
City State Speaking: Against Information	Zip Waive Speaking: In Support Against (The Chair will read this information into the record.)
Representing $DCDF$	
Appearing at request of Chair: Yes No	Lobbyist registered with Legislature: Yes No
While it is a Senate tradition to encourage public testimony, time meeting. Those who do speak may be asked to limit their remar	e may not permit all persons wishing to speak to be heard at this ks so that as many persons as possible can be heard.
This form is part of the public record for this meeting.	S-001 (10/14/14)

APPEARANCE RECORD

Deliver BOTH copies of this form to the Senator or Senate Pre-	ofessional Staff conducting the meeting) SB 7064 Bill Number (if applicable)
Topic OK DOILLING	Amendment Barcode (if applicable)
Name Tom HERBERT	
Job Title PROFESSIONL GEOLDGIST	
Address 546 PAST CALL	Phone 850 443 476
Street THUATPHU 30 City State Zij	361 Email Lample Kerperto
/	Waive Speaking: In Support Against (The Chair will read this information into the record.)
Representing FLORIDA IND- PETODICEWA	1 Progress
Appearing at request of Chair: Yes No Lobbyis	st registered with Legislature: Yes No
While it is a Senate tradition to encourage public testimony, time may not meeting. Those who do speak may be asked to limit their remarks so that	permit all persons wishing to speak to be heard at this as many persons as possible can be heard.
This form is part of the public record for this meeting.	S-001 (10/14/14)

Meeting Date (Deliver BOTH copies o	f this form to the Senat	or or Senate Professional Stafi	f conducting the me	<u> 268-</u>	ウルター ber (if applicable)
Topic Fracking			A	mendment Bard	code (if applicable)
Name Dale Orckert	300				
Job Title Representing The Fe who have a strong Address 193 viv Hamilton	d. of Garde	n Claba 16,0	000 mem	less state	wide
Address 193 NW 14milton of Street	whiten (U
City	ラ <u>レ</u> State	3234 0	Email <u>jok</u>	NW 51	28 Yahoora
Speaking: For Against	Information	, Waive Spe	eaking: I	n Support	Against
Representing FL. Fed y y	erden thubs	(16,000 me	embers f	lora Van	stalewide
Appearing at request of Chair: $\coprod^{ u}$ Ye		Lobbyist register		ion price	Yes No
While it is a Senate tradition to encourage pu meeting. Those who do speak may be asked	blic testimony, tin to limit their rema	ne may not permit all pe arks so that as many pe	ersons wishing ersons as poss	to speak to be sible can be he	e heard at this eard.
This form is part of the public record for the	his meeting.				S-001 (10/14/14)

APPEARANCE RECORD

SPB

7064

3/4/9 (Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting)

	' ' '
Meeting Date	Bill Number (if applicable)
Topic FRAMINE	
100001 60016	Amendment Barcode (if applicable)
Name (RAJS U-) TEVEN	
Job Title	
Address 1527 STEVER CHERK ROAD	Phone 949 4566104
MONTROSE PA 18801	CUS CONTROVENTO
	Email BANG CAL. Why
City State Zip	
Speaking: For Against Information Waive Speaking:	peaking:In SupportAgainst
(The Chai	r will read this information into the record.)
Representing MySAR	
Appearing at request of Chair: Yes No Lobbyist registe	ered with Legislature: Yes No

While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard.

This form is part of the public record for this meeting.

March 4,2019 Meeting Date	taff conducting the meeting) 7064 Bill Number (if applicable)
Topic Fracking	Amendment Barcode (if applicable)
Name Marco Paredes	
Job Title Associate Director for Health	
Address 201 W Park Ave	Phone 850 222 3803
Tallahassee FL 32301	Email mparedes@flaccb.ord
	peaking: In Support Against ir will read this information into the record.)
Representing Florida Conference of Catholic	Bishops
Appearing at request of Chair: Yes No Lobbyist register	ered with Legislature: Yes No
While it is a Senate tradition to encourage public testimony, time may not permit all meeting. Those who do speak may be asked to limit their remarks so that as many	persons wishing to speak to be heard at this persons as possible can be heard.
This form is part of the public record for this meeting.	S-001 (10/14/14)

APPEARANCE RECORD

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting) Amendment Barcode (if applicable) Job Title Phone 850-224-9262 Speaking: Information Waive Speaking: | In Support (The Chair will read this information into the record.) BAGUE OF WOMEN Appearing at request of Chair: Lobbyist registered with Legislature: While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard. This form is part of the public record for this meeting.

APPEARANCE RECORD

3/1/19 (Deliver BOTH copies of this form to the Senator or Senate Professional)	Staff conducting the meeting) SPB 7064
Meeting Date	Bill Number (if applicable)
Topic Fracking Name Sam Ard	Amendment Barcode (if applicable)
Job Title	_
Address 207 W. Park Ave	Phone 850 5776500
Street TLH FL 3230 City State Zip	_ Email <u>Sard@asrlegal.com</u>
Speaking: For Against Information Waive S	Speaking: In Support Against air will read this information into the record.)
Representing Fla, Independent Petroleum Producer	s Azsn.
Appearing at request of Chair: Yes No Lobbyist regis	stered with Legislature: Yes No
While it is a Senate tradition to encourage public testimony, time may not permit a	Il persons wishing to speak to be heard at this

meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard.

S-001 (10/14/14)

This form is part of the public record for this meeting.

APPEARANCE RECORD

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting) **Topic** Amendment Barcode (if applicable) Job Title Phone 941 Speaking: Information Waive Speaking: In Support (The Chair will read this information into the record.) Appearing at request of Chair: Lobbyist registered with Legislature:

While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard.

This form is part of the public record for this meeting.

Meeting Date	Bill Number (if applicable)
Name Merrillee Malwitz-Jinson	Amendment Barcode (if applicable)
Job Title owner townson business, Rum	138
Address 2070 SW CR 138 Street	Phone 352-222-8893
	Email
Representing	
Appearing at request of Chair: Yes No Lobbyist registe	ered with Legislature: Yes No
While it is a Senate tradition to encourage public testimony, time may not permit all meeting. Those who do speak may be asked to limit their remarks so that as many	persons wishing to speak to be heard at this persons as possible can be heard.
This form is part of the public record for this meeting.	S-001 (10/14/14)

(Deliver BOTH copies of this form to the Senator or Senate Professional Sta	aff conducting the meeting)
Meeting Date	Bill Number (if applicable)
Topic Andy Palmer Name Andy Palmer	Amendment Barcode (if applicable)
Job Title	
Address 195, Monroe St	Phone 205-9050
$ \frac{\int_{City} \int_{City} FL 3 23 12}{\int_{City} \int_{City} \int_{City$	eaking: In Support Against will read this information into the record.)
Representing	
Appearing at request of Chair: Yes No Lobbyist registe	ered with Legislature: Yes No
While it is a Senate tradition to encourage public testimony, time may not permit all p meeting. Those who do speak may be asked to limit their remarks so that as many p	persons wishing to speak to be heard at this persons as possible can be heard.
This form is part of the public record for this meeting.	S-001 (10/14/14)

APPEARANCE RECORD

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting)

SPB 7064

Bill Number (if applicable)

Meeting Date		Bill Number (if applicable)
Topic		Amendment Barcode (if applicable)
Name Anvie Van Meter	***	
Job Title		
Address 408 Plantationed		Phone 850-228-9641
Tallahassee, FL	32303	Email
Speaking: For Against Information	<i>Zip</i> Waive S∤ (The Chai	peaking: In Support Against or will read this information into the record.)
Representing		
Appearing at request of Chair: Yes No	Lobbyist registe	ered with Legislature: Yes No
While it is a Senate tradition to encourage public testimony, time	e may not permit all	persons wishing to speak to be heard at this

While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard.

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APPEARANCE RECORD

(Deliver BOTH copies of this form to the Senator or Senate Professional	Staff conducting the meeting) SPB 7064
Meeting Date	Bill Number (if applicable)
Topic FRACKING DEFINITION	Amendment Barcode (if applicable)
Name EDWARD CAKSFORD	_
Job Title RETIRE HYDRUGEOLUS	RICT
Address 2520 HARRIMAN CIR	Phone 850 - 422 - 0240
TALLAHASSEE EL 32308 City State Zip	<u>S</u> Email
Speaking: For Against Information Waives	Speaking: In Support Against air will read this information into the record.)
RepresentingSELF	
Appearing at request of Chair: Yes No Lobbyist regis	stered with Legislature: Yes No
While it is a Senate tradition to encourage public testimony, time may not permit a meeting. Those who do speak may be asked to limit their remarks so that as man	ll persons wishing to speak to be heard at this y persons as possible can be heard.
This form is part of the public record for this meeting.	S-001 (10/14/14)

2 / H / 19 (Deliver BOTH copies of this form to the Senator or s	Senate Professional Staff conducting the meeting) $\leq PB - 7064$
Meeting Date	Bill Number (if applicable)
Topic Fracking definition Name Linda Maksford	Amendment Barcode (if applicable)
Job Title	
Address 2520 Harriman Cir	Phone
	3230 ⁸ Email
Speaking: For Against Information	Waive Speaking: In Support Against (The Chair will read this information into the record.)
Representing	
Appearing at request of Chair: Yes No	_obbyist registered with Legislature: Yes No
While it is a Senate tradition to encourage public testimony, time n meeting. Those who do speak may be asked to limit their remarks	
This form is part of the public record for this meeting.	S-001 (10/14/14)

APPEARANCE RECORD

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting)

03/04/2019 Meeting Date	Bill Number (if applicable)
Name Kenzie Mullins	Amendment Barcode (if applicable)
Job Title	_
Address 4033 Mclaughlin DR. Street	Phone (850) 727 - 6850
	Email Kenzie @ CethinVenergy florida.o Speaking: In Support Against air will read this information into the record.)
Representing Rethink Energy Florida	
Appearing at request of Chair: Yes No Lobbyist regis	stered with Legislature: Yes Vo
While it is a Senate tradition to encourage public testimony, time may not permit a meeting. Those who do speak may be asked to limit their remarks so that as man	
This form is part of the public record for this meeting.	S-001 (10/14/14)

APPEARANCE RECORD

(Deliver BOTH copies of this form to the Senator or Ser	7664
Meeting Date	Bill Number (if applicable)
Topic Frackins	Amendment Barcode (if applicable)
Name Kin Ross	
Job Title EX Dic	
Address 603 NMLKJ Blud	Phone <u>850-766-1300</u>
Street TLH 4L	330¶ Email
Speaking: State Speaking: Information	Zip Waive Speaking: In Support Against (The Chair will read this information into the record.)
Representing ReThink Energy FL	
Appearing at request of Chair: Yes No Lo	bbyist registered with Legislature: Yes Vo
While it is a Senate tradition to encourage public testimony, time may meeting. Those who do speak may be asked to limit their remarks so	
This form is part of the public record for this meeting.	S-001 (10/14/14)

APPEARANCE RECORD

3/4/19 (Deliver BOTH copies of this form to the Senator or	Senate Professional Staf	f conducting t	he meeting)	7064
Meeting Date				Bill Number (if applicable)
Topic Olo Colo			Amendn	nent Barcode (if applicable)
Name Day D Mica				
Job Title DIRECTOR				
7.44.000	Stegor	Phone _	80	561-6300
14/14/10)200		Email	MICH	DEAPLORG
Speaking: For Against Information	Zip Waive Sp (The Chair		In Sup	oport Against tion into the record.)
Representing FLORIDA PETROLEUMCa	wer (1 W. W.)
Appearing at request of Chair: Yes No	Lobbyist registe	red with	Legislatu	re: Yes No
While it is a Senate tradition to encourage public testimony, time r	may not permit all p	ersons wi	shing to sp	eak to be heard at this

meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard.

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APPEARANCE RECORD

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting) Meeting Date Bill Number (if applicable) Amendment Barcode (if applicable) Name Job Title Address Street State Zip Speaking: Against Information Waive Speaking: In Support Against (The Chair will read this information into the record.) Representing Appearing at request of Chair: Lobbyist registered with Legislature: While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard. This form is part of the public record for this meeting.

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THE FLORIDA SENATE

APPEARANCE RECORD

<u> </u>	(Deliver BOTH copies of this form to the Senator or Se	nate Professional Staff conducting the meeting	Bill Number (if applicable)
Topic Name	Fraching Cliff Thaell		endment Barcode (if applicable)
Job Title _			
Address _		Phone	
_	CityState	Email	,
Speaking:	For Against Information	Waive Speaking: In (The Chair will read this info	Support Against rmation into the record.)
Repres	senting		
•		bbyist registered with Legisl	ature: Yes No

While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard.

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APPEARANCE RECORD

$3/4/\varsigma$ (Deliver BOTH copies of this form to the Senator or Senate Professional	I Staff conducting the meeting)
Meeting Date	Bill Number (if applicable)
Name Dr. Rich Templin	Amendment Barcode (if applicable)
Name Dr. Rich Templin	
Job Title	
Address 135 S. Mon rol	Phone
Tallahasse Ec 32301 City State Zip	Email
Speaking: For Against Information Waive	Speaking: In Support Against hair will read this information into the record.)
RepresentingFlorida AFL - C10	
Appearing at request of Chair: Yes No Lobbyist regis	stered with Legislature: Yes No
While it is a Consta tradition to analyzogo nublic testimony, time may not normit.	all navagna wishing to an aleta be be seed at this

While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard.

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APPEARANCE RECORD

(Deliver BOTH copies of this form to the Senator or Senator Date	SB 1064
Topic Frank 186	Bill Number (if applicable) Amendment Barcode (if applicable)
Name Nonwood Onnick	
Job Title	
Address 6603 & Cirilian Street	Phone <u>8/3 676 5136</u>
VAMPA FL 3.	<u>36.10</u> Email
Speaking: State Speaking: Against Information	Waive Speaking: In Support Against (The Chair will read this information into the record.)
Representing Sur	
Appearing at request of Chair: Yes No Lo	bbyist registered with Legislature: Yes No
While it is a Senate tradition to encourage public testimony, time may meeting. Those who do speak may be asked to limit their remarks so	

S-001 (10/14/14)

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APPEARANCE RECORD

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting)

Meeting Date	Bill Number (if applicable)
Topic FRACKINS	Amendment Barcode (if applicable)
Name Wanda McCreary	
Job Title Deli Cheric	
Address 552 Adeiel Ave	Phone 600-622-6937
Winter HAVEN FL. City State	33880 Email WMCCIEARY 552@gmail.Com
Speaking: For Against Information	Waive Speaking: In Support Against (The Chair will read this information into the record.)
Representing SeF	
Appearing at request of Chair: Yes No	Lobbyist registered with Legislature: Yes No
While it is a Senate tradition to encourage public testimony, tim meeting. Those who do speak may be asked to limit their remains	e may not permit all persons wishing to speak to be heard at this rks so that as many persons as possible can be heard.
This form is part of the public record for this meeting.	S-001 (10/14/14)

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THE FLORIDA SENATE

APPEARANCE RECORD

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting)

	SHOD LOD,
Meeting Date	Bill Number (if applicable)
Topic Fracking Ban	Amendment Barcode (if applicable)
Name Rusulyh Kilcollins	
Job Title Con sultant	
Address 2505 Arthus Gurt Phone	850-570-8889
Street Tullahussee FL 32301 Email	22 tally Combara moil, co
City State Zip	
Speaking: For Against Information Waive Speaking: (The Chair will read	In Support Against this information into the record.)
Representing	
Appearing at request of Chair: Yes No Lobbyist registered with	Legislature: Yes No

While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard.

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APPEARANCE RECORD

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting)

Meeting Date			Bill Number (if applicable)
Topic Fracking	•	Amen	dment Barcode (if applicable)
Name Christina Regalado			
Job Title Engineer			
Address 2904 N. Tampa St	Phone	813	-626-5136
Street Tampa FL 33602	Email_		
Speaking: For Against Information Waive S			upport Against nation into the record.)
Representing		···	and the date of the day of
Appearing at request of Chair: Yes No Lobbyist regist	ered with	ı Legisla	ture: Yes No

While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard.

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APPEARANCE RECORD

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting) Bill Number (if applicable) Amendment Barcode (if applicable) Name Job Title Address Street Speaking: Against Information Waive Speaking: In Support Against (The Chair will read this information into the record.) Appearing at request of Chair: Lobbyist registered with Legislature: While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard. This form is part of the public record for this meeting.

APPEARANCE RECORD

Meeting Date (Deliver BOTH copies of this form to the Senator	or Senate Professional Staff conducting the meeting) Bill Number (if applicable)
Topic Faching Name farm Carnella	Amendment Barcode (if applicable)
Job Title	
Address 625 Gove STN	Phone 727. 209-8622
Street Street FL	
Speaking: State Against Information	Vaive Speaking: In Support Against (The Chair will read this information into the record.)
Representing	
Appearing at request of Chair: Yes No	Lobbyist registered with Legislature: Yes No
While it is a Senate tradition to encourage public testimony, time meeting. Those who do speak may be asked to limit their remark	e may not permit all persons wishing to speak to be heard at this ks so that as many persons as possible can be heard.
This form is part of the public record for this meeting.	S-001 (10/14/14)

APPEARANCE RECORD

3/4/2019 (Deliver BOTH copies of this form to the Senator or Senate Professional Staff	conducting the meeting) SB 7664
Meeting Date	Bill Number (if applicable)
Topic Fracking	Amendment Barcode (if applicable)
Name Jennifer RUBIELLO	
Job Title Director	
Address 3110 1st Ave N ste 2H	Phone 7273273138
	Email <u>jennifer@envivorbent</u>
Speaking: For Against Information Waive Spe	
Representing Environment FLORIDA	
Appearing at request of Chair: Yes No Lobbyist register	ed with Legislature: Yes No
While it is a Senate tradition to encourage public testimony, time may not permit all permeeting. Those who do speak may be asked to limit their remarks so that as many permeting.	

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APPEARANCE RECORD

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting)	7064
Meeting Date	Bill Number (if applicable)
Topic Amenda	ment Barcode (if applicable)
Name MX. V. Miller	8
Job Title Campaign Director, Relhold Energy + le	crider 5-766-6867
Address There There	D-766-680+
Street Tallahessee FL 37309 Email U Milla	er every Here
Speaking: For Against Information State Zip Waive Speaking: In Su (The Chair will read this information)	pport Against
Representing ReThirle Energy Florida	
Appearing at request of Chair: Yes No Lobbyist registered with Legislatu	
While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speeting. Those who do speak may be asked to limit their remarks so that as many persons as possible of	

This form is part of the public record for this meeting.

CourtSmart Tag Report

Room: SB 301 Case No.: Type: Caption: Committee on Agriculture Judge:

Started: 3/4/2019 1:42:47 PM

1:43:24 PM

1:43:25 PM

1:43:26 PM

1:43:27 PM 1:43:28 PM

1:43:47 PM

1:43:53 PM

1:43:57 PM

1:44:19 PM

1:53:11 PM

1:54:27 PM 2:00:41 PM

Ends: 3/4/2019 2:55:54 PM Length: 01:13:08 1:42:47 PM Meeting was unable to be recorded from 1:00-1:43. Notes of meeting prior to recording activation 1:42:48 PM Meeting called to order 1:42:49 PM Roll call 1:42:49 PM Quorum is present 1:42:50 PM Pledge of Allegiance Introduction to Tab 1 SB 666 by Senator Hooper 1:42:51 PM 1:42:52 PM Comments by Chair Albritton 1:42:53 PM Vice Chair Gainer asks a question 1:42:54 PM Senator Hooper responds 1:42:55 PM Follow up by Senator Gainer 1:42:56 PM Senator Hooper responds 1:42:57 PM Appearance cards? Paul Lowell of the FL Medical Association waives in support 1:42:58 PM 1:42:59 PM Any debate? None. 1:43:00 PM Senator Hooper waives his close SB 666 is found favorable 1:43:01 PM 1:43:02 PM SB 880 is TP 1:43:03 PM Sr. Analyst of Senate Agriculture Committee, Linda Akhavein introduces SPB 7062 1:43:04 PM Sam Ard of FL Cattlemen's Association & Emily Buckler of Department of Agriculture & Consumer Services waive in support 1:43:05 PM Senator Gainer moves to close SPB 7062 SPB 7062 is found favorable 1:43:06 PM 1:43:07 PM Chair is passed to Senator Gainer Senator Albritton introduces SPB 7064 1:43:08 PM Questions? None. 1:43:09 PM 1:43:10 PM **Appearance Cards?** Jennifer Wilson of Conservancy of Southwest FL speaks on SPB 7064 1:43:11 PM 1:43:12 PM Senator Broxson asks a question 1:43:13 PM Jennifer Wilson responds 1:43:14 PM Senator Albritton asks a question 1:43:15 PM Jennifer Wilson is requested to return to the podium after other public testimony 1:43:16 PM Christina Regalado, Norwood Orrick, Wanda McCleary, Herman McGreary, Tara Bryant, Desmond Grimes, Nina Stephens, and Ken Hays waives in opposition Jim Tatum of Our Santa Fe River speaks on SPB 7064 1:43:17 PM 1:43:18 PM Senator Broxson asks a question 1:43:19 PM Jim Tatum responds 1:43:20 PM Kristin Rubin of Our Santa Fe River waives in opposition 1:43:21 PM Howard Kessler of Physicians for Social Responsibility speaks on SPB 7064 1:43:22 PM Questions? None. Andy Palmer waives in opposition 1:43:23 PM

Merrillee Malwitz-Jipson speaks on SPB 7064

Jan Rubino of League of Women Voters waives in opposition

Sam Ard of FL Cattlemen's Association here for information on SPB 7064

Marco Paredes of FL Conference of Catholic Bishops waives in support

Gale Dickert of FL Federation of Garden Clubs speaks on SPB 7064

Recording begins as appearances on SPB 7064 continue

David Colien of Sierra Club FL speaks on SPB 7064

Questions? None.

Questions? None.

Questions? None.

Senator Rader joins meeting

Craig Stevens speaks on SPB 7064

2:01:42 PM	Tom Herbert, Professional Geologist here for information
2:02:07 PM	Senator Broxson asks a question
2:03:20 PM	Tom Herbert responds
2:08:22 PM	Senator Albritton asks a question
2:09:23 PM	Tom Herbert responds
2:12:07 PM	Senator Montford asks a question
2:14:22 PM	Tom Herbert responds
2:18:04 PM	Senator Gainer asks a question
2:19:05 PM	Tom Herbert responds
2:19:32 PM	Senator Albritton asks a question
2:20:31 PM	Tom Herbert responds
2:21:14 PM	Senator Albritton asks a question
2:21:34 PM	Tom Herbert responds
2:21:41 PM	Senator Albritton asks a question
2:21:53 PM	Tom Herbert responds
2:22:04 PM	Senator Broxson asks a question
2:23:05 PM	Tom Herbert responds
2:24:20 PM	Senator Gainer asks a question
2:25:21 PM	Tom Herbert responds
2:25:34 PM	Senator Gainer asks a question
2:26:02 PM	Tom Herbert responds
2:26:13 PM	Senator Montford asks a question
2:26:24 PM	Tom Herbert responds
2:26:49 PM	Senator Montford asks a question
2:27:52 PM	Tom Herbert responds
2:28:03 PM	Patricia Thomas of DCNF speaks on SPB 7064
2:29:10 PM	Meta Calder of Rethink Energy FL waives in opposition
2:30:12 PM	Dennis Scott waives in opposition
2:30:23 PM	Amy Datz of Environmental Caucus of FL speaks on SPB 7064
2:31:19 PM	Michelle Allen of Food & Water Watch speaks on SPB 7064
2:33:33 PM	Brian Lee of Floridians Against Fracking speaks on SPB 7064
2:35:14 PM	Jake Blaut of Rethink Energy Florida waives in opposition
2:36:16 PM	Christine Campbell of Rethink Energy FL waives in opposition
2:36:46 PM	Marc Freeman speaks on SPB 7064 Senator Gainer asks a guestion
2:37:31 PM 2:38:33 PM	Marc Freeman responds
2:39:01 PM	Senator Gainer asks a guestion
2:40:01 PM	Marc Freeman responds
2:40:07 PM	Anne Van Meter waives in opposition
2:40:22 PM	Edward Oaksford waives in opposition
2:40:38 PM	Linda Oaksford waives in opposition
2:40:47 PM	Kenzie Mullins of Rethink Energy FL waives in opposition
2:41:09 PM	Kim Ross of Rethink Energy FL speaks on SPB 7064
2:43:32 PM	Questions? None.
2:44:33 PM	David Mica of FL Petroleum Council speaks on SPB 7064
2:48:27 PM	Questions? None.
2:49:27 PM	Aliki Moncrief of FL Conservation Voters speaks on SPB 7064
2:50:23 PM	Questions? None.
2:50:59 PM	Cliff Thaell waives in opposition
2:51:14 PM	Dr. Rich Templin of FL AFL-C10 speaks on SPB 7064
2:52:47 PM	Senator Albritton suggests to TP SPB 7064 until next week to allow futher testimony
2:53:47 PM	Senator Broxson seconds this motion
2:54:25 PM	Senator Gainer TP's SPB 7064
2:55:08 PM	Senator Rader makes motion to vote after as yea to SB 666 and SPB 7062
2:55:33 PM	Senator Montford makes motion to vote after as yea to SB 666 and SPB 7062
2:55:46 PM	Senator Montford moves to adjourn