SLS 18RS-359 **ORIGINAL**

2018 Regular Session

SENATE CONCURRENT RESOLUTION NO. 86

BY SENATOR HEWITT

COASTAL RESOURCES. Requests the oil and gas industry in Louisiana to support the construction of the Louisiana Geological Survey Coastal Geohazards Atlas by providing access to interpretations from 3-D seismic data.

1	A CONCURRENT RESOLUTION
2	To urge and request the oil and gas industry in Louisiana to support the construction of the
3	Louisiana Geological Survey (LGS) Coastal Geohazards Atlas by providing access
4	to interpretations of faults and other geological features from 3-D seismic data.
5	WHEREAS, the United States Army Corps of Engineers (USACE) report entitled
6	"Active Geological Faults and Land Change in Southeastern Louisiana - A Study of the
7	Contribution of Faulting to Relative Subsidence Rates, Land Loss, and Resulting Effects on
8	Flood Control, Navigation, Hurricane Protection and Coastal Restoration Projects" reached
9	five fundamental conclusions:
10	(1) Submergence of coastal wetlands due to a combination of compaction, sea level
11	rise and fault slip has been the major cause of land loss in the delta plain during the twentieth
12	century.
13	(2) Fault movement in the area of the modern delta plain has been continual and
14	episodic for millions of years. Episodes of active fault movement are separated by dormant
15	periods when movement persists as slow creep. An episode of fault slip between 1964 and
16	1980 appears to be associated with significant land loss on downthrown sides of faults.
17	(3) There is a relationship between faults and salt structures. Ductile, incompressible,
18	low density salt moves relative to surrounding compacting sediments; and this movement

of salt interacts with faults associated with the salt structures.

(4) Continual episodic and slow creep fault slip may cause preferentially thicker accumulations of compactible organic clays and peats on the downthrown side of the faults, thereby delineating areas where subsidence rates may be higher due to the greater compactibility of the soil column.

(5) Faulting poses a natural hazard in southeastern Louisiana, and the findings of the report have direct applications to the planning and design of coastal restoration efforts, including infrastructure element; and

WHEREAS, a research initiative by the New Orleans Geological Society (NOGS) has resulted in six research projects at the University of New Orleans (UNO), the University of Louisiana at Lafayette (ULL), and Tulane University that have used oil and gas industry seismic data to study several aspects of the conclusions of the USACE report; and

WHEREAS, the preliminary conclusions of these research projects, some of which have been presented at the annual meetings of the Geological Society of America and the American Geophysical Union, and several of which are scheduled for presentation at the State of the Coast Conference in June 2018, have shown conclusively that oil and gas industry seismic data can be used to extrapolate the location of faults at the land surface and to study patterns of episodic fault slip; and

WHEREAS, the Restore Act Center of Excellence awarded a research grant on June 22, 2017, for the project entitled "An Evaluation of Faulting in Holocene Mississippi River Delta Strata through the Merger of Deep 3-D and 2-D Seismic Data with Near Surface Imaging and Measurements of Vertical Motion at Three Study Areas" to researchers from UNO, ULL, Tulane University, the Lake Pontchartrain Basin Foundation (LPBF), and the University of Kentucky, which is underway, and is making use of oil and gas industry seismic data; and

WHEREAS, research supported by the University Transportation Consortium, the Transportation Consortium of South-Central States, and the Louisiana Transportation Research Center is underway to start the process of assessing the use of oil and gas industry seismic data to study the impacts of subsurface geological faulting on transportation infrastructure; and

1	WHEREAS, LPBF has conducted research on subsidence rates from faulting
2	determined by Real-Time Kinematic (RTK) Elevation Surveys of bridges in Lake
3	Pontchartrain showing that recent fault movement is both causing subsidence and impacting
4	infrastructure; and
5	WHEREAS, a presentation by NOGS at the upcoming 2018 State of the Coast
6	Conference will examine the use of oil and gas industry data to help assess the potential for
7	faults to impact Mississippi River levees; and
8	WHEREAS, LGS and NOGS have joined to lead the development of a Louisiana
9	Coastal Geohazards Atlas, and the focus of the atlas will be on the landforms developed in
10	a variety of underlying geologic settings and which are affected by faulting, subsidence, and
11	flooding; and
12	WHEREAS, the atlas will provide valuable technical data to inform the state's
13	planning and prioritization of integrated coastal protection projects, infrastructure projects,
14	and statewide flood control projects; and
15	WHEREAS, construction of the Coastal Geohazards Atlas will rely heavily on the
16	contributions of interpretations of faults from oil and gas industry seismic data.
17	THEREFORE, BE IT RESOLVED that the Legislature of Louisiana does hereby
18	urge and request the oil and gas industry in Louisiana to support the construction of the
19	Louisiana Coastal Geological Survey Geohazards Atlas by providing access to
20	interpretations of faults and other geological features from 3-D seismic data.
21	BE IT FURTHER RESOLVED that a copy of this Resolution be transmitted to the
22	presidents of the Louisiana Mid-Continent Oil and Gas Association and the Louisiana Oil
23	and Gas Association, the secretary of the Department of Transportation and Development,
24	the governor's executive assistant for coastal activities, and the executive director of the

office of community development.

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The original instrument and the following digest, which constitutes no part of the legislative instrument, were prepared by Alan Miller.

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SCR 86 Original

DIGEST 2018 Regular Session

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