Mark Draeb Testimony on Senate Bill 2228
Energy and Natural Resources Committee Testimony

In Favor of SB 2228

Chairman and Committee members, my name is Mark Draeb, I live in Morton County with my wife Laurie. We own land in Mercer, Morton, and Stark Counties, some of which was homesteaded by my ancestors.

The current law which SB 2228 is trying to correct, allows for a company to secure a lease of 60% of the land near or around your property, and impose through eminent domain the terms of that lease on your property. The current law does not state what the terms of the lease need to be or protect the landowner in any way. For example, if the lease gives the company permission to drill, build, dig, or drive on your property, you are stuck with it whether you want it or not. Additionally, you are stuck with the economic terms of the lease which could be substantially less than what the 60% got for signing early, such as a bonus.

I have to assume this was not the intent of the original bill when it was passed. We all know laws can have unintended consequences and many times things like this get slipped in since the contributors of the bill language have their own vested interest in mind. SB 2228 simply corrects oversights in the original language and gives back ownership and control to the landowner.

Please note the following points:

1. The trouble with the opposition testimony is that it is primarily focused on economics and not landowner's rights. This is a landowner rights issue and not a state or private company economic issue. Any opposition touting state economics or private company interests should be scrutinized. A landowner should have the right to sell their property unencumbered. Currently, if Summit Carbon Solutions uses eminent domain to acquire a lease on my property, not only will the pore space be encumbered, but so will the surface area. Forcing a lease like this must be unconstitutional. For a real example, it would prevent me from leasing out our pore space to a salt water disposal lease which pays significantly more than what Summit is paying. Additionally, it encumbers the surface area reducing the economic value.
2. Water Injection Lifts Earth's Surface: While of significant value, the drawback with university research is that it is generally paid for and directed by "for profit" companies. Opposition touts the many years of research, but it might be worthwhile asking if any consideration was given to the actual and planned water injection projects in California and Italy where they have lifted the earth's surface by injecting water into the pore space with high pressure. Sound familiar? Does anybody actually believe that injecting a hazardous material like liquefied CO2 with extremely high-pressure underground will

not affect underground aquafers and other geological structures when similar strategies have been documented to do so in other parts of the country? See Exhibit A attached article "Injections Could Lift Venice 12 Inches" reference to California.

3. Land Owner Rights: Why should a land owner be subject to what 60% of the property owners near (not even next) to their property want to do? Disposing of CO2 is not the same as utilities where we have standard language and processes for eminent domain and it generally only affects the sections lines or along roads. At the very minimum, Carbon Sequestration should follow that process.
4. 60% is a supermajority: Minnkota's testimony states the 60% is a supermajority of landowners. This is incorrect. The 60% required for eminent domain is a supermajority of land acreage. Actually, current law allows for a small minority of landowners that may have 60% of the acreage to hold the property rights of the majority of landowners hostage. The facts are actually opposite of Minnkota's testimony. Minnkota's testimony also states that requiring 100% of landowners ensures no CCS storage projects will move forward. I beg to differ. It would just cost Minnkota more resulting in the landowners getting more of the profits for use of their property. The burden should be on Minnkota, not the land owner.
5. Regulation and Principals: This section is to clear up Mr. Tiegen's of the ND Department of Commerce testimony. First, Mr Teigen states that "Commerce exists to increase the overall wealth of the state and we do this primarily through the attraction of both capital and talent". I agree, but it is not relevant to this bill unless he is suggesting a reallocation of wealth from landowners? Second: Mr. Teigen states that ND is "A state with a favorable regulatory environment, low taxes, and an approach that innovation trumps regulation. This bill directly flies in the face of the principles that we have used to build our state as a great place to invest and do business." This is just confusing. I agree with the low regulation and taxes, however this bill has nothing to do with either. In fact, it removes regulation from the Landowner's perspective by preventing the state offices from taking their land rights away without due process. Besides, for decades I have promoted ND principles as those of good character and work ethic derived from our rural farming and ranching industries. Third: Mr. Teigen states this bill will "signal to the world that ND is changing course and taking a stance of regulation over innovation." How is giving the landowner rights back to them regulation over innovation. It makes no sense at all. From what I can tell, Mr. Teigen's definition of increase overall wealth is taking from landowners and giving to corporations.
6. Bad Leasing Practices without SB 2228: Without SB 2228 companies get away with terrible leasing practices. They threaten landowners by indicating their neighbors have signed and if the landowner does not sign, they will lose the bonus once their property is acquired by eminent domain. Additionally, they include a favored nations clause that protects the lessee in case other lessees get better terms. So, landowners that try to get better terms are hung out to dry. SB 2228 puts the landowner in a better position to negotiate.

7. Summit Carbon Solutions project carbon footprint: I have not yet read where any of the testimony opposing this bill talks about how carbon sequestration is better for the earth. Maybe I missed it, maybe it is assumed, or maybe those that oppose the bill are doing so for economics. I suspect the latter. However, I asked Summit Carbon Solutions what is the carbon footprint for them to create their project as well as maintain it. I assumed considering it is such a large project that creating of the pipes, the shipping of the pipes, installation of the pipes, air and car travel to get leases, all the state politics, etc.; the carbon footprint would not be insignificant. I would also assume Summit would have a graph that would show how many years down the road where the amount of carbon put into the air from the installation and maintenance of the project would be less that that pumped underground. With all the supposed research, all they would provide is a comparison of proposed carbon sequestration to number of automobiles. Is it possible they did not even consider the carbon footprint to create this huge project or possibly they want to keep that data confidential for some reason? Below as exhibit B is a correspondence from Summit confirming this.

Thank you for your consideration

Mark Draeb

Exhibit A

When seas rise, water flows up into Venice's Piazza San Marco via drains meant to carry rains away.
PHOTOGRAPH BY ALVARO LEIVA, AGE FOTOSTOCK/GETTY IMAGES

Injections Could Lift Venice 12 Inches, Study Suggests

Twelve wells to "inflate" city's foundations 12 inches over ten years?

BY **BRIAN HANDWERK**, FOR NATIONAL GEOGRAPHIC NEWS

PUBLISHED JANUARY 21, 2012 • 8 MIN READ

Want to save sinking Venice from rising seas? Fight water with water, a new plan suggests.

Injecting billions of gallons of seawater could "inflate" porous sediments under the canal-crossed city, causing the Italian city to rise by as much as a foot (about 30 centimeters), scientists say.

(Read "Charlie Chaplin's Venice" from the new issue of National Geographic Traveler.)

Known to Venetians as the acqua alta, or "high water," flooding driven by high tides submerges the lowest 14 percent of the Italian destination four times a year, on average (interactive map of Venice's flood zones).

And it's only getting worse.

Venice dropped about 5 inches (12 centimeters) between 1950 and 1970, when groundwater was pumped out for industrial uses, according to city data. Currently, though, the city is sinking at a rate of less than two inches (five centimeters) a century, according to a 2002 study in the journal Geophysical Research Letters.

But even as Venice's descent slows, the surrounding Adriatic Sea is swelling—with the average local sea level predicted to rise by perhaps a foot by the end of this century, said hydrologist Giuseppe Gambolati, a proponent of the seawater-injection method.

(See National Geographic magazine's "Vanishing Venice.")

Under the plan, a dozen wells surrounding Venice in a six-mile (ten-kilometer) circle would pump water into the ground over a ten-year period—nearly 40 billion gallons in all (150 billion liters).

"When you inject water, you cause an expansion of the injected formations," said Gambolati, a hydrologist at the University of Padua in Italy.

"If land is settling, then you offset the settlement and sinking stops. [Once] land is stable, you induce an uplift."

Enlarge Venice canal picture >>

Parting of the Waters

The modest rise could reduce the need for the still-under-construction MOSE floodgate system, aka Project Moses. Segments of the electromechanical system sit on the seabed at each of the Venetian Lagoon's three inlets. MOSE's giant panels are to be inflated to seal off the marshy lagoon when severe floods threaten.

By 2100 MOSE might be needed about 35 times a year if the average local sea level has risen by about 10 or 11 inches (roughly 28 centimeters), according to a 2010 study in the journal Climate Dynamics.

The injection project could reduce that number to 4 times a year, according to a new study co-authored by Gambolati and published in the December 7 edition of the journal Water Resources Research.

For the study, the researchers combined raw seismic data from the 1980s—when oil and gas companies were still allowed to use explosives to delve under the lagoon for geological observation—with more recent data. The result is a 3-D map that depicts the impermeable layer of clay under Venice in unprecedented detail.

That clay, Gambolati said, is key.

"The seawater would be pumped into a number of sandy layers ... between 650 and 1,000 meters' depth [2,133 and 3,280 feet]," he said. "The presence of a clay cover above ensures that the injected seawater will not flow upward. Water will diffuse laterally within the layers it is pumped into."

(Related: Venice "Ancestor" City Mapped for First Time)

It's Been Done Before

Used by oil companies, this kind of subsurface fluid injection has previously caused land to rise in California, Canada, and elsewhere, according to a 2010 study.

Civil engineer Ron Wong, an expert in the underground injection of fluids for enhanced petroleum recovery, said the concept of "raising" Venice is definitely feasible if the geology below the city is right.

"We have more than 20 years of experience in Alberta injecting steam or water into the ground, and we have observed a very similar kind of heave, around 30 centimeters [1 foot] of permanent deformation," said Wong, who said heads the University of Calgary's department of civil engineering.

"But it has only worked here in dense sand." Wong said the study appears

In Alberta, Wong added, high-tech monitoring tools precisely track land as it slowly rises, to make sure the uplift is uniform. "If the heave is not uniform, you can cause a lot of damage on the ground," he said.

The University of Padua's Gambolati said his team's modeling study suggests that the entire city of Venice can be raised in unison to avoid any structural damage that might be caused if some sections rise higher than others.

Not Far-Fetched?

If the injection project is greenlighted, it would take only a year or two to get the decade-long pumping process underway, Gambolati estimates.

The plan is also economical, he stressed, certainly in comparison with the MOSE system.

"We did not make a detailed breakdown of the cost," Gambolati said. "However, offhand, the overall cost could be expected over the range of 200 to 300 million Euros [about U.S. $255 to $383 million].

"Consider that the planned cost of MOSE, as of today, is five billion euros [six billion dollars]," and that's before you factor in maintenance costs, he said.

Let It Flood?

So far, Venice's sometimes submerged streets and squares aren't dimming tourist enthusiasm. In 2011, for example, more than 20 million tourists visited the city, generating some two billion dollars in declared revenue.

The novelty of the acqua alta, in fact, might be one of the city's draws, said journalist Erla Zwingle, an American who's called Venice home for 17 years.

"My husband, who is a native Venetian, said that if the MOSE system were operating, they'd have to open it periodically to let the flood waters flow, because the tourists love it so much," said Zwingle, who writes a blog about everyday life in Venice.

"They take off their shoes and wade into the Piazza San Marco (picture) and take pictures of one another. To them, it's kind of fun."

Even when waters are high, many parts of the city don't flood. Those that do can often be traversed via several miles of passerelle, raised boards laid down by the city. Many hotels keep stores of galoshes or boots on hand.

For Venetians, Floods Are "a Small Nuisance"

The floods, added Zwingle, are relatively short—usually lasting a few hours till the tide recedes—and predictable. "It doesn't happen all the time or even most of the time."

The acqua alta season generally runs from September to April, and if a flood is going to happen, "it's most likely to happen when the moon is full or new, when there's a southeast wind, and/or when there's low atmospheric pressure. It doesn't strike out of the blue," Zwingle said.

"People know in advance, so it's easy to deal with and low impact. It comes up and it goes back down."

(See pictures: "Venice Floods Reach Five Feet, But Life Goes On.")

To residents, Zwingle adds, flooding is neither fun nor a catastrophe—just a part of life in Venice.

"Venetians are the only people who are not excited by the high water. A resident will just pull on his or her boots and pursue a normal schedule," she said.

In fact, Zwingle said, Venetians are more likely to get worked up over more familiar civic concerns, like lack of municipal funding and medical care or failing schools.

"Venice has been here for 1,500 years, and they've had high water for centuries," she said. "If it were such a problem for daily life that it couldn't be faced anymore, people would have moved away long before now."

Quiz: How well do you know Venice? Test yourself >>

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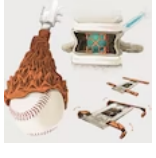

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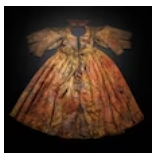

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HISTORY & CULTURE

A Q&A with Nikole Hannah-Jones on 'The 1619 Project'

Exhibit B

FW: CO2 Emissions and the SCS Project

Jeffrey Skaare <jskaare@summitcarbon.com> Wed, Aug 31, 2022 at 10:54 AM
To: Mark Draeb <markdraeb@gmail.com>
Cc: "pj.scott22@gmail.com" <pj.scott22@gmail.com>

Greetings Mark:

I am following up on your additional question. Please see the response below. Again, we would like to have a meeting with you directly. We have some available times next week. We would be willing to come to your place or we would gladly host this at our office. Please let me know what day works best for you and we will work on scheduling.

Sincerely,

Jeff Skaare
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From: John Satterfield <jsatterfield@summitcarbon.com>
Sent: Wednesday, August 31, 2022 10:44 AM
To: Jeffrey Skaare <jskaare@summitcarbon.com>
Subject: CO2 Emissions and the SCS Project

Hi Jeff:

In response to your questions….

We will be calculating our Scope 1 GHG emissions related to construction of the asset. At this point, we've not approved construction bids. As we move closer/into construction (anticipated fall 2023), we'll be able to place a finer point on emissions because they will be based on actual activities rather than conjecture.

Once we move to operations, we will be measuring and reporting the carbon molecules captured at each partner plant and injected into the sequestration formations in ND. This measurement and reporting will comply with multiple regulatory schema including EPA, California Air Resources Board (CARB), and the ND Industrial Commission. Similarly, there may be reporting to international registries of the amount of GHGs captured and permanently sequestered.

From a gross emissions perspective, we have a capacity of 12 million metric tonnes per year (MMTA) we can capture, transport, and permanently sequester at our site in ND. This value equates to the emissions of approximately the 2.6 million automobiles. For comparison purposes, there are roughly 215,000 automobiles registered in the state of ND per the Federal Highway Administration https://www.fhwa.dot.gov/policyinformation/statistics/2020/mv1.cfm. The CO2 emissions from construction will quickly be dwarfed by the volume of CO2 we will be capturing and preventing from being released to the atmosphere.

A carbon intensity (CI) score is related to the supply/value chain of fuels. The efficacy of the capture and sequestration of CO2 by the SCS project will be reflected in the CI score of the ethanol fuels produced by our partner plants. There will not be a CI score attributed to the SCS project itself.

The move towards “net zero” for the ethanol plants can only be partially attributed to the SCS project. There are other opportunities related to renewable energy sources providing energy to the ethanol plants and corn farming practices that can be implemented that will further reduce the CI score of the partner plants to near zero by the end of the decade.
Let me know if you have any additional questions on this subject.
Thanks!
John

JOHN SATTERFIELD | DIRECTOR, REGULATORY AFFAIRS & ESG

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