

4.1 Offshore News – who, what, where

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Gulf Coast Carbon Center
Bureau of Economic Geology

Ship delivering CO2 to the depleted Nini West oil field.



- A fundamental milestone was reached in **March 2023** when the **world's first cross-border offshore CO2 storage commenced at Project Greensand.**
- **INEOS** and project partners have shipped CO2 from Antwerp in Belgium to the Nini platform in the Danish North Sea.
- This follows on from **Carbfix**, ETH and Neustark demonstrating the first cross-border CCS in the DemoUpCarma project, between Switerland and Iceland.



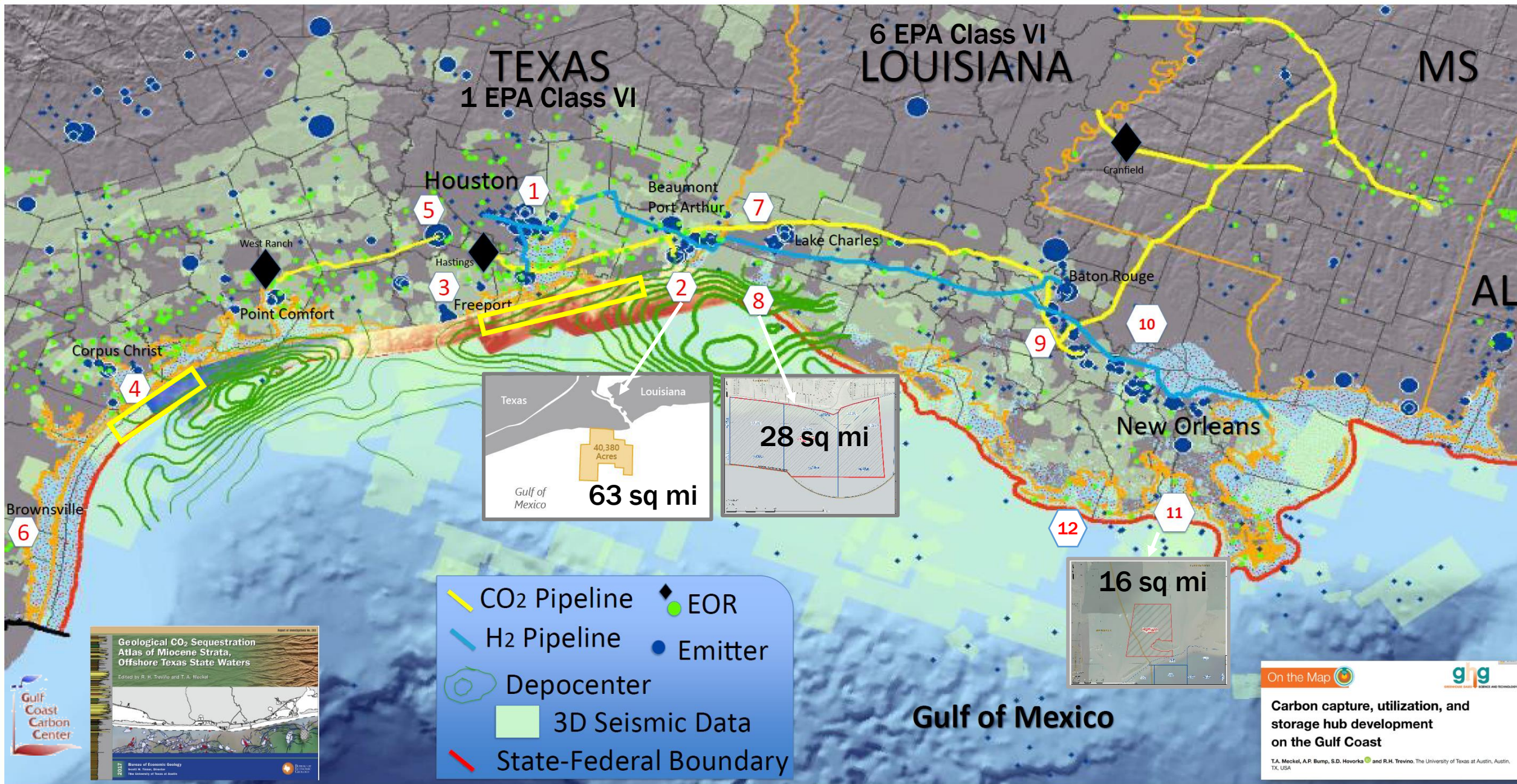
Northern Lights JV awarded contracts for building of two dedicated CO2 carriers to Dalian Shipbuilding Industry Co., Ltd.

Transocean was selected to drill the carbon injection well and a second sidetrack well for the project.

More International Offshore CCS News...



- **Mitsubishi Shipbuilding Co.**, a subsidiary of Mitsubishi Heavy Industries, has **launched a test ship for transporting liquefied carbon dioxide (LCO₂)**.
- **Avonmouth Dock**, part of the **Port of Bristol**, in **England**, is the site for **7CO₂'s future Carbon Capture and Shipping Hub**.
- **Seven Oceans** has **commenced pipe spooling** for the world's first full-scale open-source CCS project, Northern Lights, at Subsea7's Vigra Spoolbase in Norway. The **first section of the 100km pipeline** will run from **Øygarden to Equinor's CO₂ storage complex in the North Sea**. Last week, spooling began on the first stalk via the large 3,800 tonnes mounted reel, located on the main deck of the Seven Ocean. The operation will involve the spooling of 1500 stalks of **12" rigid carbon steel pipe, with a wall thickness of 15.9 mm**.
- **Norwegian** companies **Hunter Group** and **DNV** have entered into a joint co-operation agreement to develop a **low-pressure mid-stream shipping solution** for CCS. The parties have agreed to work together to develop a **40,000-70,000-m³ liquified CO₂ carrier with 20,000-30,000-m³ feeder vessels**. The aim is to meet defined targets towards a sustainable CCS shipping solution operated on the Norwegian Continental Shelf and European waters. Under the joint co-operation agreement, **technological and operational measures will be assessed, as well as hull and cargo tank designs. Alternative fuels such as ammonia, methanol, fuel cells and CO₂ abatement technologies will also be evaluated**.
- The **Ports of Stockholm** is considering a CCS hub. A feasibility study led by Ports of Stockholm and other parties in the carbon capture and storage (CCS) arena will assess building an **interim carbon dioxide storage facility at Stockholm Norvik Port**. The project, known as **Norvik Infrastructure CCS East Sweden (NICE)** in eastern Sweden.



TEXAS
1 EPA Class VI

6 EPA Class VI
LOUISIANA

MS

AL

Houston 1
5
3
Freeport

Beaumont
Port Arthur 7

Lake Charles

Granfield

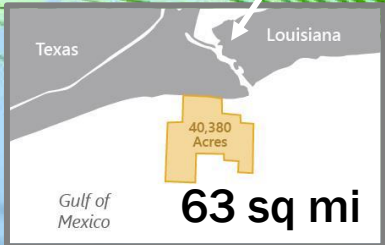
Baton Rouge

New Orleans

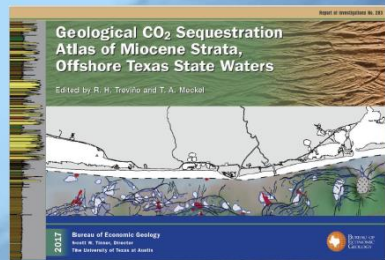
West Ranch
Point Comfort

Corpus Christ

Brownsville



- CO2 Pipeline
- H2 Pipeline
- Depocenter
- 3D Seismic Data
- State-Federal Boundary
- ◆ EOR
- Emitter

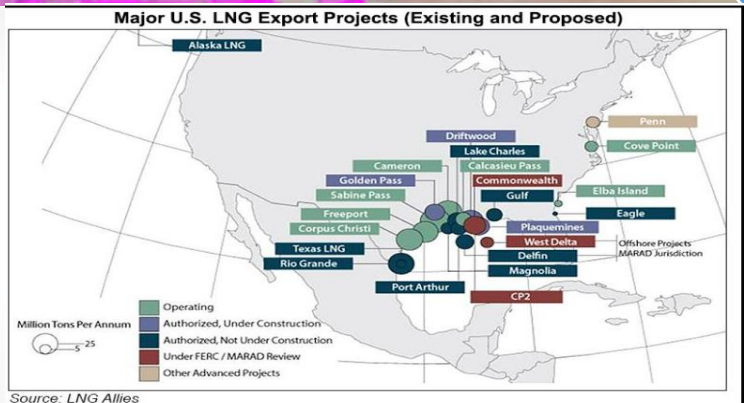
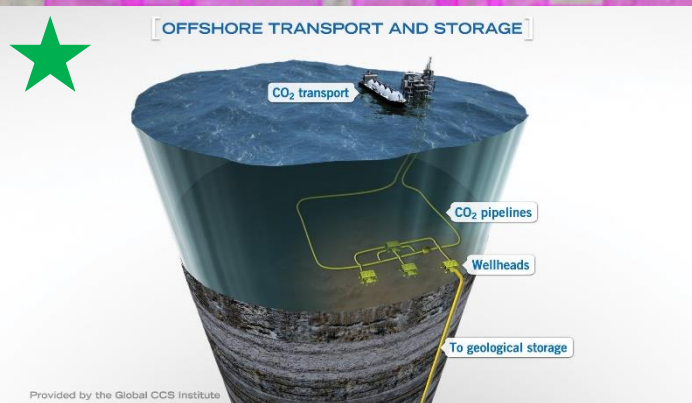
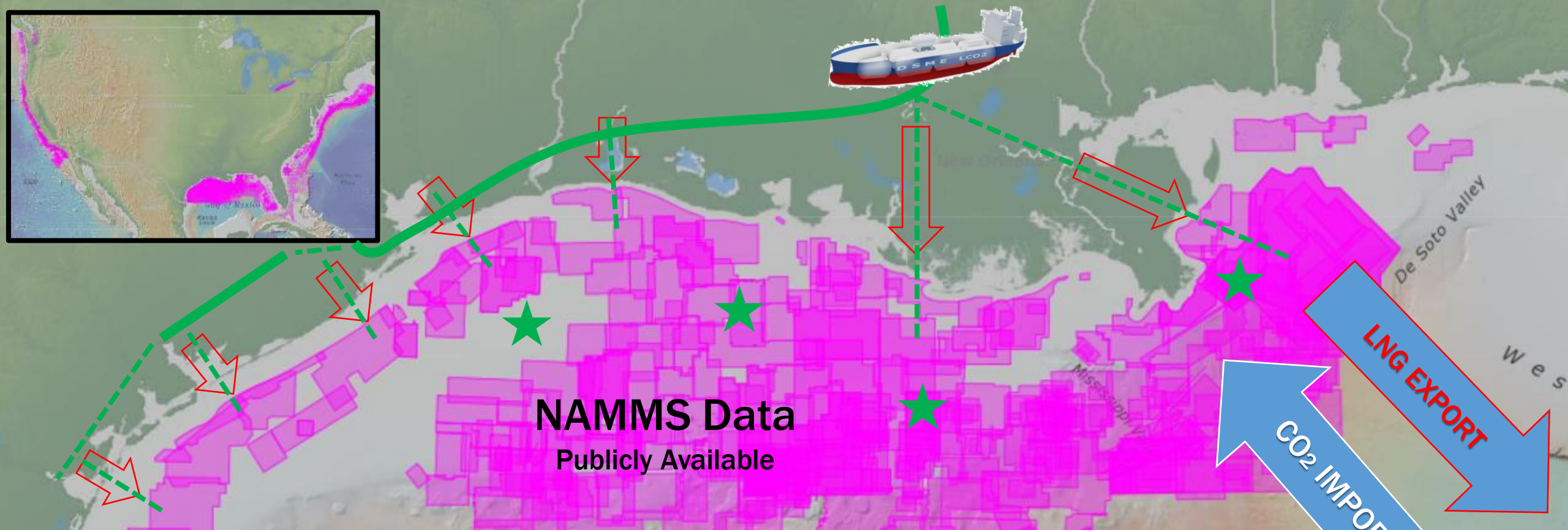


On the Map

Carbon capture, utilization, and storage hub development on the Gulf Coast

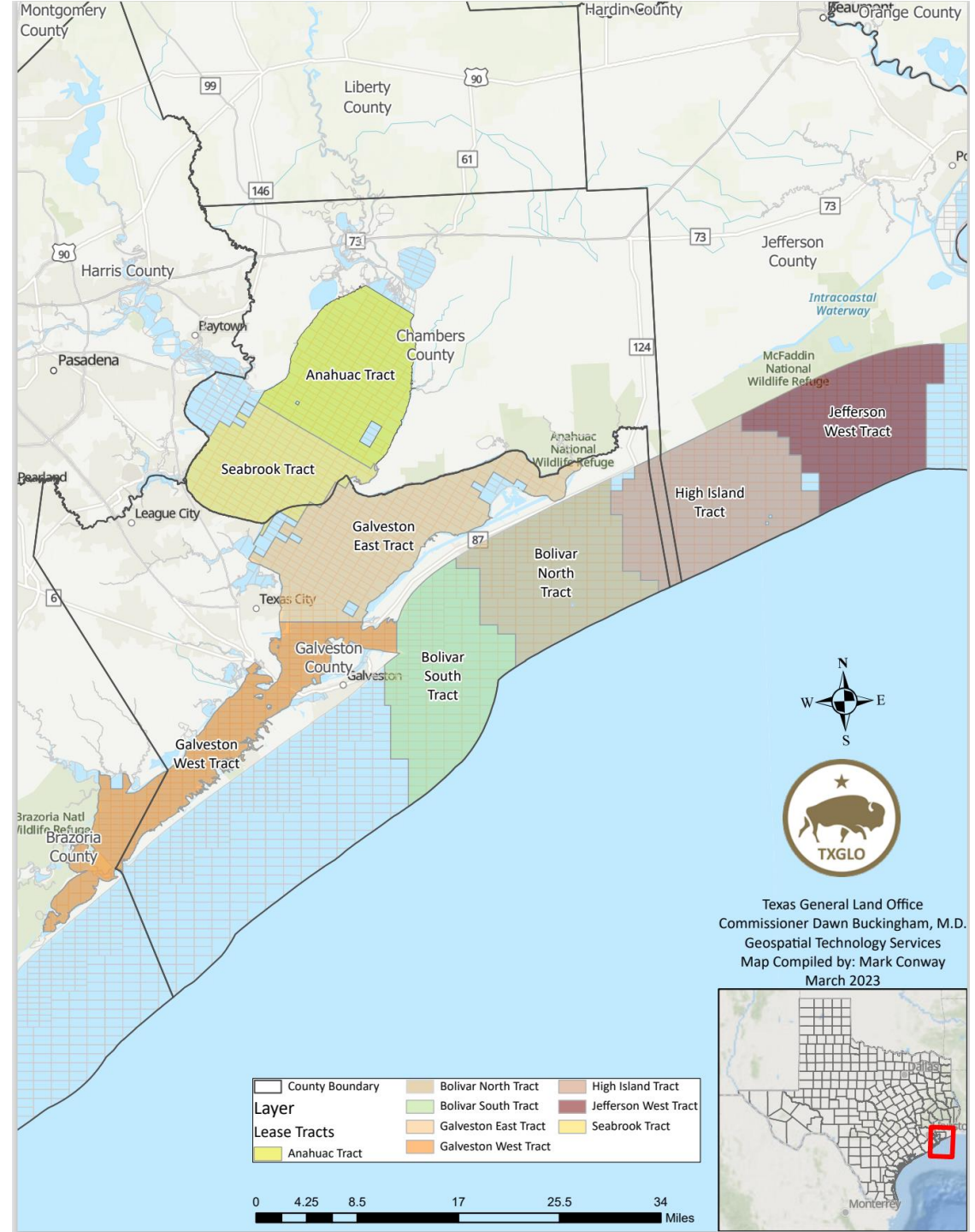
T.A. Meckel, A.P. Bump, S.D. Hovorka and R.H. Trevino. The University of Texas at Austin, Austin, TX, USA

Gulf Coast CCS toward 2050: LNG + CCS



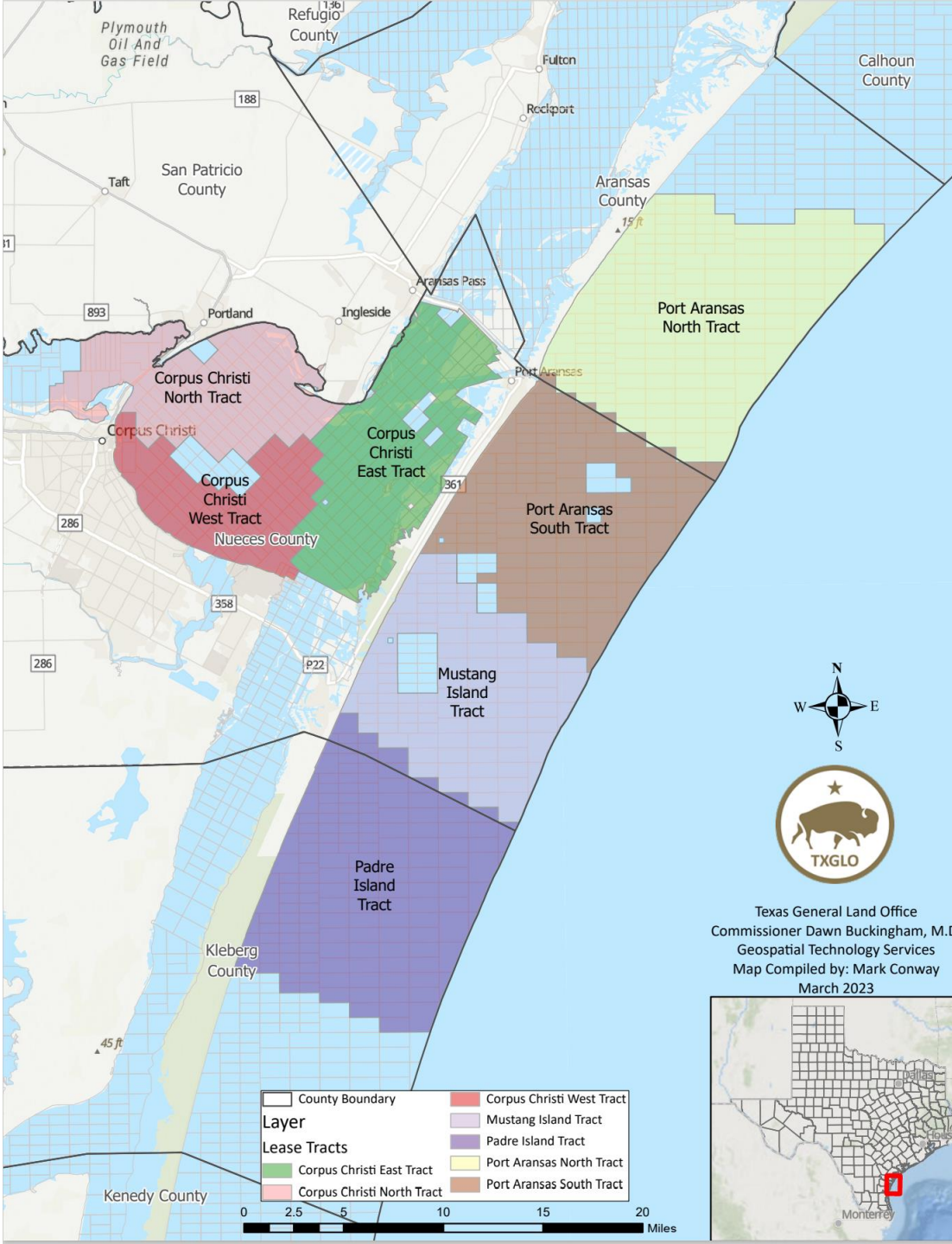
GLO CCS Lease Round 2023

UPPER COAST TRACTS (8)	ACRES	sq mi
Seabrook Tract	60,386	94.4
High Island Tract	100,042	156.3
Jefferson West Tract	85,014	132.8
Galveston West Tract	84,402	131.9
Galveston East Tract	98,546	154.0
Bolivar South Tract	87,718	137.1
Bolivar North Tract	86,014	134.4
Anahuac Tract	77,838	121.6
	Total	1156.8
	Average	128.5
	Minimum	94.4
	Maximum	156.3



COASTAL BEND TRACTS (7)	ACRES	sq mi
Port Aransas North Tract	86,779	135.6
Port Aransas South Tract	68,881	107.6
Mustang Island Tract	56,015	87.5
Padre Island Tract	83,187	130.0
Corpus Christi East Tract	48,272	75.4
Corpus Christi West Tract	27,674	43.2
Corpus Christi North Tract	40,744	63.7

Total	643.1
Average	91.9
Minimum	43.2
Maximum	135.6

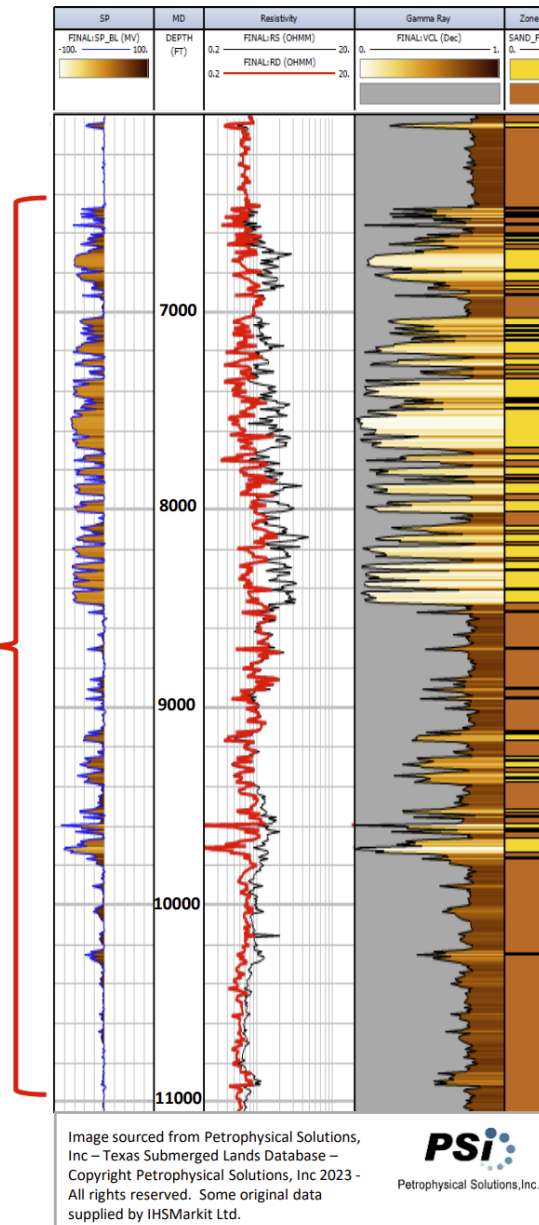
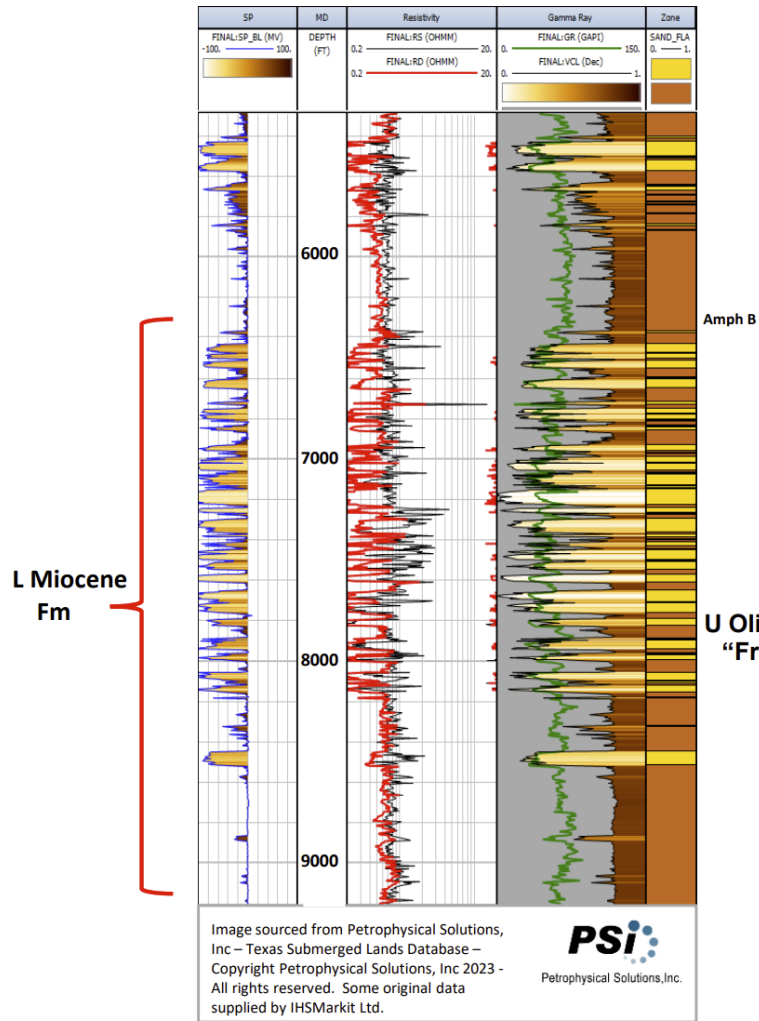


Texas General Land Office
 Commissioner Dawn Buckingham, M.D.
 Geospatial Technology Services
 Map Compiled by: Mark Conway
 March 2023

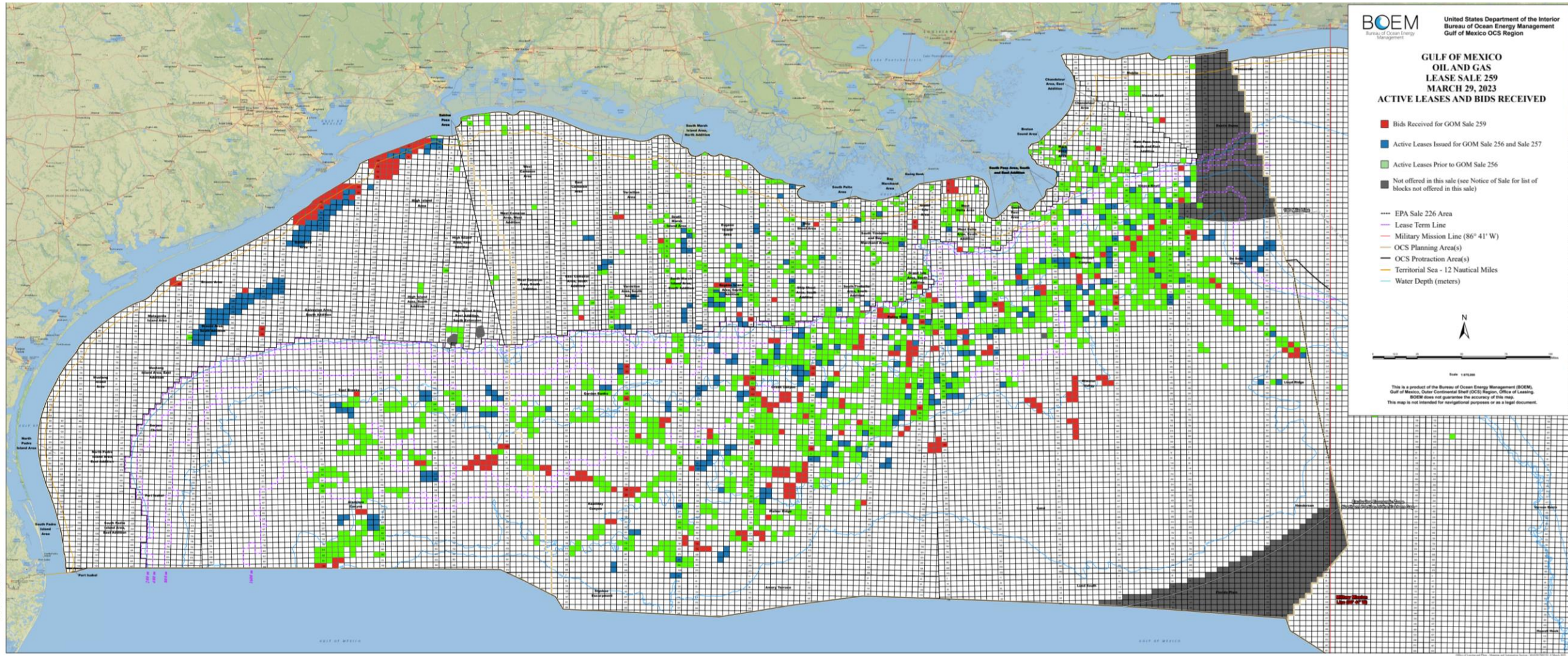
Relevant Miocene and/or Oligocene Formations

API# 427063011900

API# 423550611900



BOEM - OCS Lease Sale 259



Congrats to members of CEQ's CCUS Federal Lands & Outer Continental Shelf Permitting Task Force¹

35 Members

7 Project Operators



15 Regulatory Bodies



14 Non-Profits



The CCUSTodian

¹ The White House Council on Environmental Quality (CEQ)

Source:

 March 24, 2023