

Texas-Louisiana Carbon Management Community

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Team Leads

Susan D Hovorka, Angela Luciano, Katherine Romanak, Gulf Coast Carbon Center, Bureau of Economic Geology, Jackson School of Geosciences, The University of Texas at Austin (UT)

Jong-won Choi Texas and Jing Bo Louise Lui; A&M University – Kingsville (TAMUK)

Christine Hale, Coral Lozada, Texas A&M University-Corpus Christi (TAMUCC) and the Coastal Bend Council of Governments

Ramanan Krishnamoorti Center for Carbon Management in Energy (CCME) Hobby School for Public Policy, the Energy and Natural Resources Center in the UH Law School and the Gutierrez Energy Management Institute in the Bauer College of Business at the University of Houston (U of H)

Tracy Benson, Dan F. Smith Department of Chemical & Biomolecular Engineering, Lamar University

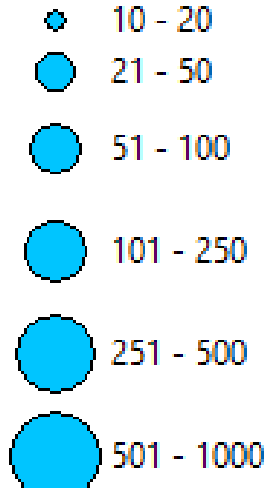
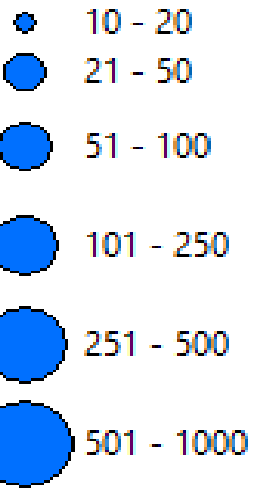
Mehdi Zeidouni Department of Petroleum Engineering at Louisiana State University, Pre-Engineering STEM Pathway and through the Center for Community Engagement, Learning, and Leadership (CCELL) at Louisiana State University (LSU)



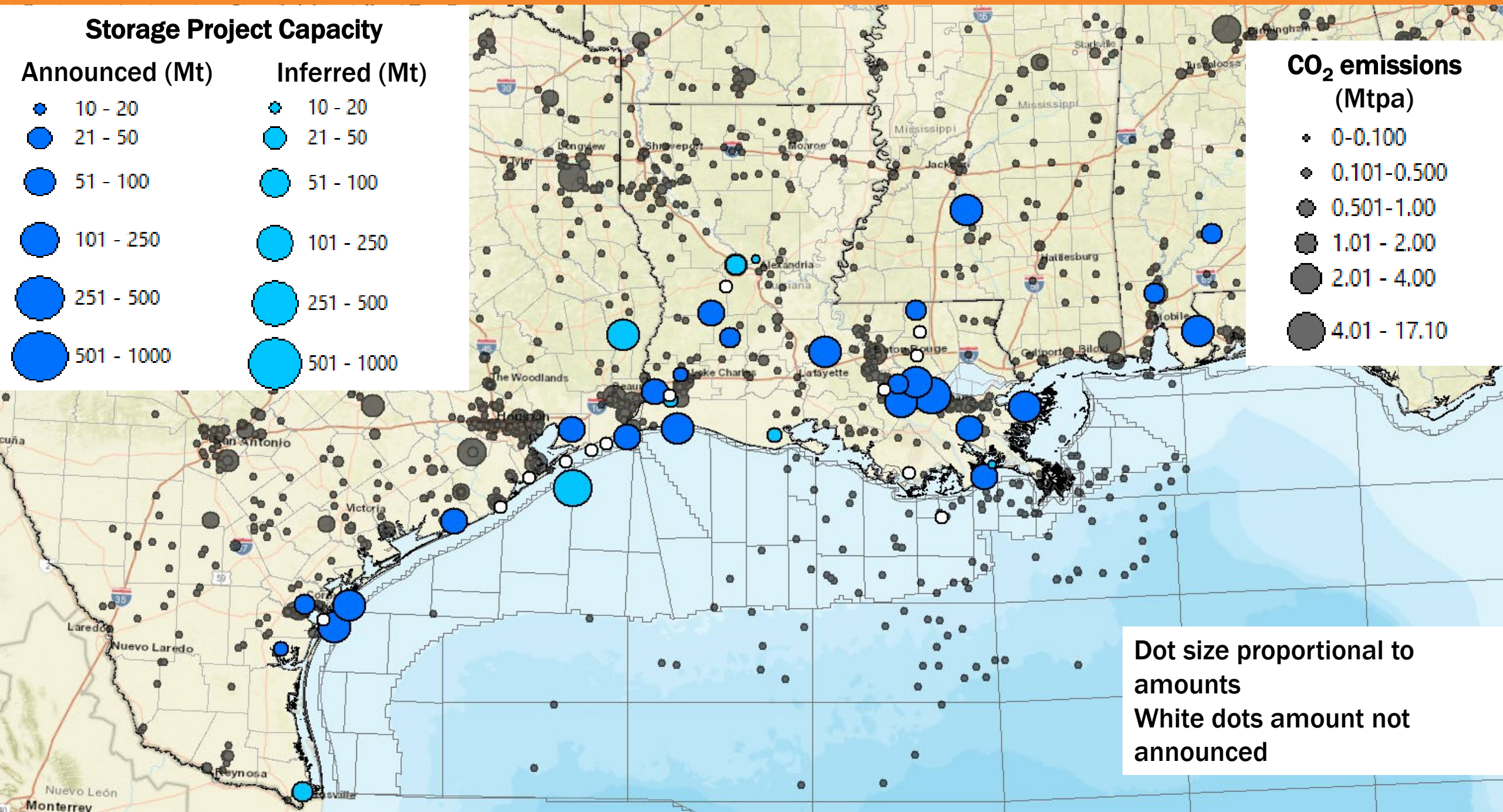
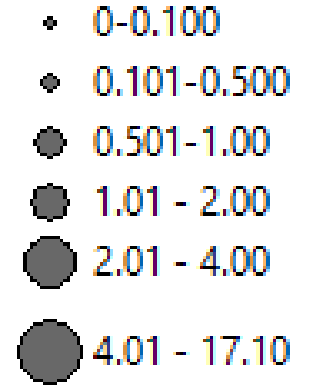
Storage Project Capacity

Announced (Mt)

Inferred (Mt)



CO₂ emissions (Mtpa)



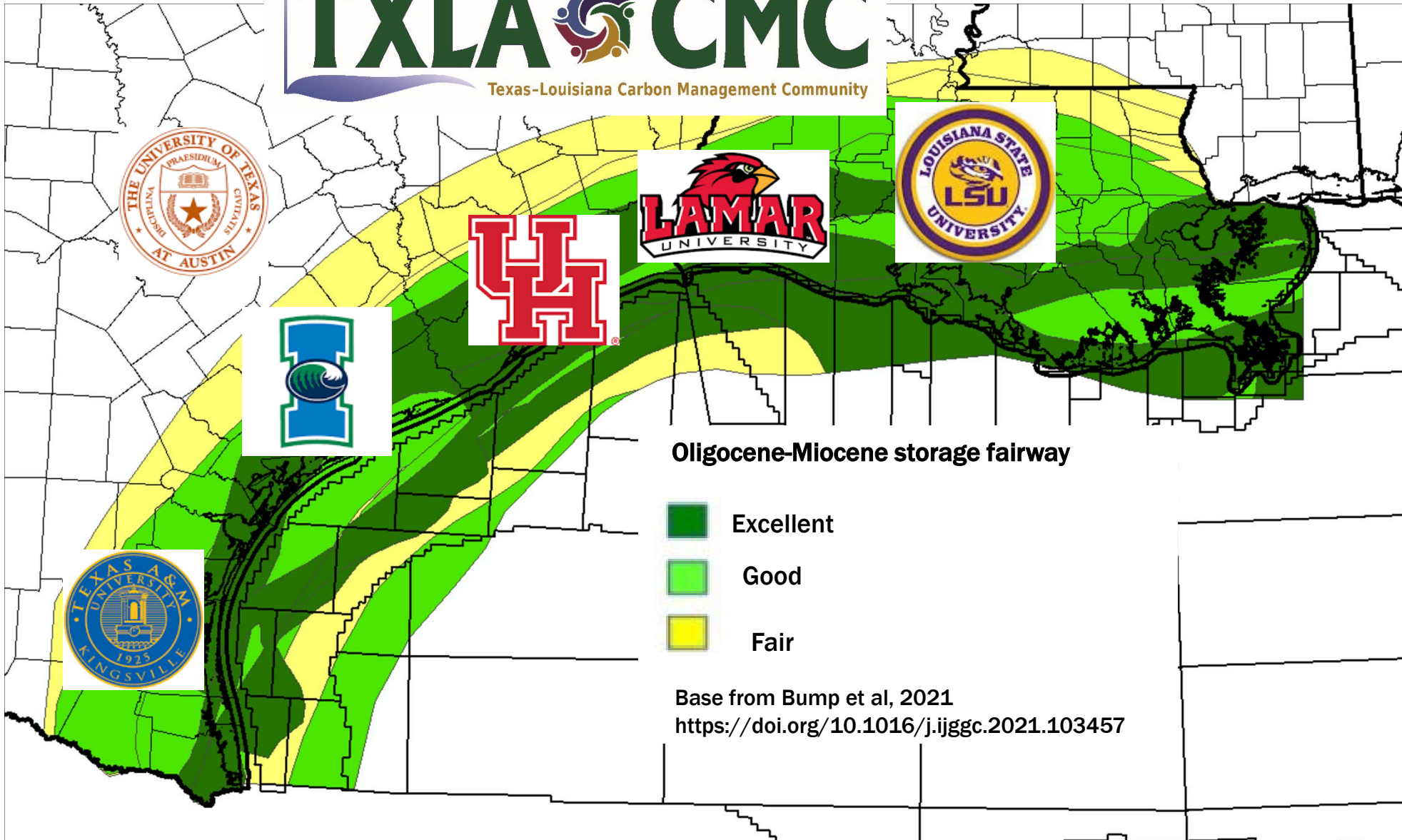
Dot size proportional to amounts
White dots amount not announced



- Gulf Coast Carbon Center - research on CO₂ storage in deep saline formations since 1998
- The kinds of questions we answer:
 - Where this works?
 - How much CO₂ can you inject?
 - How do you reduce risks and increase benefits?
 - How do we best monitor to be sure all is as it should be?
 - What would happen if something went wrong? E.g. “controlled release” experiments
- Information sharing with public, governments, industries, regulators
 - **Time to do more of this with TXLA –CMC!**

TXLA CMC

Texas-Louisiana Carbon Management Community



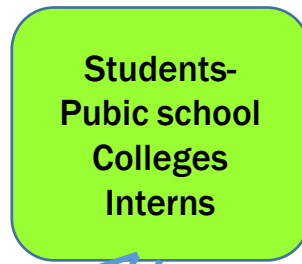
Oligocene-Miocene storage fairway

- Excellent
- Good
- Fair

Base from Bump et al, 2021
<https://doi.org/10.1016/j.ijggc.2021.103457>



Capture
Storage
Pipeline
Onshore
offshore



Deepen information
exchange via student
learning



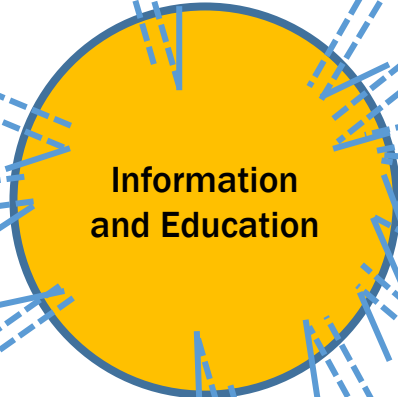
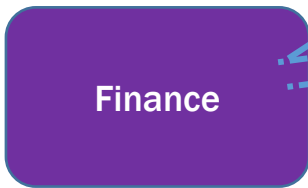
Diversity
Inclusion
Openness

Policy
Subsurface pressure management
Monitoring
Marine and terrestrial ecosystem
Characterization
Social license to operate



Increase access to
current
and technical
information
across all media

CCS project investment
Business investment
Community investment
Land Use
Tax revenue



CCS businesses
Vendors and consultants
Low carbon business growth
opportunities



Incentives and permits

Energy transition
jobs in fossil
intensive region

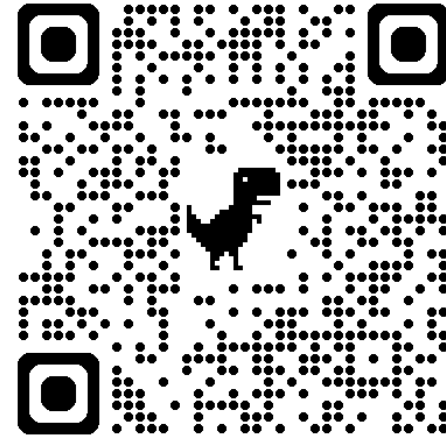


Community benefits to
offset risk
Roads, internet,
emergency services

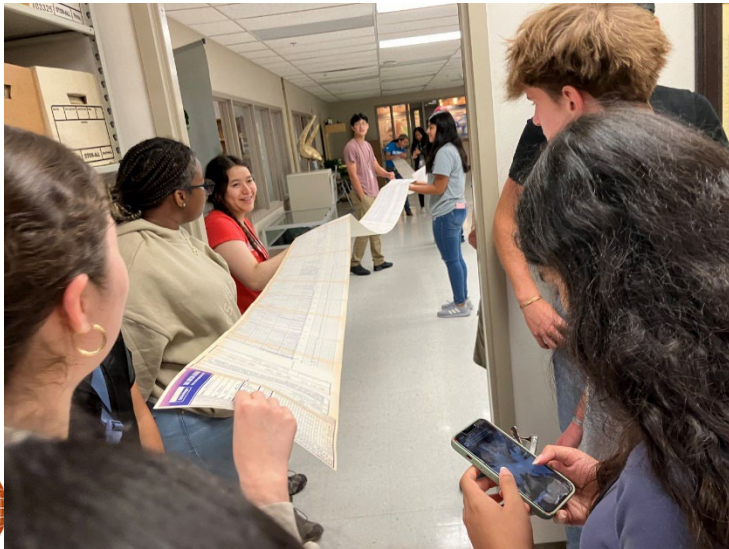


- Information push to diverse groups who need information about CCS Gulf Coast focus
 - Add CCS info to each university's strong existing outreach programs
 - Trusted in-person contacts
 - Make needed outreach materials
 - Enlist formal and informal science and social studies programs as CCS providers
 - Harmonize with project-specific outreach efforts
 - Communication tools: newsletter to social media splashes
 - Maintain global learning
- Gulf Coast CCS “Phone book”
 - Free membership, available to members only
 - Basic contact info and 100 word ‘blurb’ about what your do
 - To read more about the Phone Book and to join, click this link to our form <https://forms.office.com/r/pcbQJqdALu> .
- R&D activities at each University across CCS spectrum

Carbon-Not

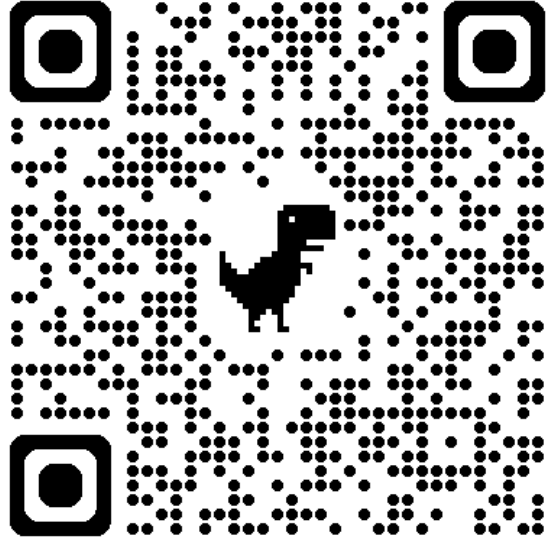


Activities for young people who want to learn about a low carbon Future
Computer game : chose your carbon future
CCS comic book



Students in summer 2024 programs visit capture plant at UT, examine a log to see how deep CO₂ is injected, and see Shell refinery from the boat on the way to the Big Thicket





Put-it-back.org

Educational materials for formal and informal science education

Hands-on demos with CO₂
Fact Sheet hub – inventory the global collection of fact sheets and other accessible information, generate more as needed

If you find carbon once stored deep in the earth has be let loose in the atmosphere, we need to catch it and put-it-back



QUARTERLY NEWSLETTER

Community Engagement

June 2024



Welcome

In this newsletter:

Welcome to the second Texas-Louisiana Carbon Management Community newsletter! We are thrilled to share the latest developments with you and provide resources and information related to TXLA CMC.

Community Outreach and Engagement IOI

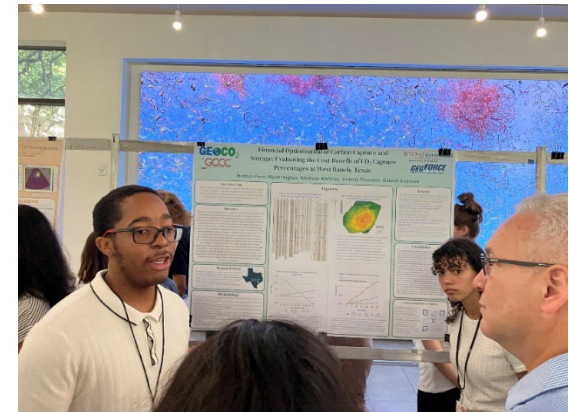
As we move forward, we plan to send future newsletters with a targeted theme to fulfill your requests about specific carbon capture and storage (CCS) topics. These topics will include community

Scan or Click to join



the phonebook. Please feel free to share our newsletter with anyone interested in joining the phone book to build connections or they may opt-out and only keep up with TXLA CMC news and events.

Teacher training:
3 CCS ambassadors developed materials.
Will share with 80 other science teachers CAST science teacher convention November San Antonio – nominate a teacher to attend!



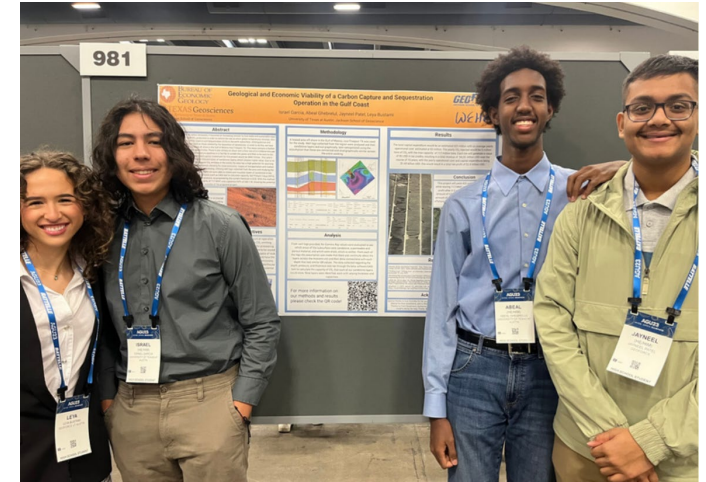
Explaining CCS o RRC staff judge



How we are planning to get information out

- Phone book to link people and companies
- Newsletter for TXLA CMC
- Continue to provide web resources:
 - [www,gulfcoastcarbon.org](http://www.gulfcoastcarbon.org)
- Student and teacher training this summer
 - Train teachers how to teach students how monitor a storage project
 - Host a group of 20 high school seniors to “look under the hood” and see how CCS works (GeoFORCE)
 - Host threecollege student interns
- Working to develop a game exploring options to reach 1.5 degrees

"Geological and Economic Variability of a Carbon Capture and Sequestration Operation in the Gulf Coast"
Led by Sue Hovorka L-R:
Leya Bustami, Israel Garcia, Abeal Ghebrelul, Jayneel Patel



GeoFORCE high school seniors at AGU summer 2024

Technical Elements

- TX A&M Kingsville – CCS courses at minority-serving university, CO₂-shale- geomechanical interactions
- Texas A&M Corpus Christi – Community Engagement, Coastal Data and stakeholders
- University of Texas at Austin – Coordination, CCS courses at minority-serving university, State Geologic Survey information providers, Monitoring CO₂ projects in wetlands
- University of Houston - CCS courses at minority-serving university, policy; value chain analysis and employment, course in carbon management
- Lamar University – Chemical engineering training to refineries, community outreach
- Louisiana State University - CCS courses at minority-serving university, social science and outreach.

Thank You!

- Look forward to next two years!

Carbon-not –
for young people

www.put-it-back.org
Accessible information
Teacher training

