

MAY 2025



# LAPIS

ABOUT PROJECT LIBRA

## CONTENTS

- 1 ABOUT LAPIS AND  
PROJECT LIBRA
- 2 ABOUT CLASS VI  
PERMITS
- 3 ABOUT CCS
- 4 COMMUNITY  
QUESTIONS

The purpose of this deck is to provide a one-stop shop for information about our Libra Project in St. Charles Parish. We will update these materials periodically, adding information based on community feedback. We will also post updates to our [Project Libra Facebook page](#).

Please reach out if you have questions:  
[info@lapiscarbonsolutions.com](mailto:info@lapiscarbonsolutions.com). We'd love to hear from you!



## WHAT WE DO

Lapis offers development, construction, and operation of CCUS projects, providing turn-key solutions for emitters looking to decarbonize industrial operations. Our technical expertise allows Lapis to utilize a dual approach for CCUS project development:

- ▶ Identifying strategic sites for sequestration
- ▶ Providing custom carbon solutions tailored to emitters' needs

### CAPTURE

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CO<sub>2</sub> capture solutions customized to each industry partner

### TRANSPORT

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Options to safely move compressed CO<sub>2</sub> to storage sites or utilization partners

### OPERATE

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Injection and monitoring in accordance with EPA Class VI/LDENR and industry standards

### STORE

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Injection and monitoring in line with EPA Class VI /LDENR standards

# WHAT IS PROJECT LIBRA?

**SERVICE**  
TRANSPORTATION AND STORAGE

**ESTIMATED VOLUME**  
1-4 MILLION METRIC TONS OF CO2 PER YEAR

**PARTNERS**  
LAPIS (OPERATOR)  
EXXON (NON-OPERATOR)

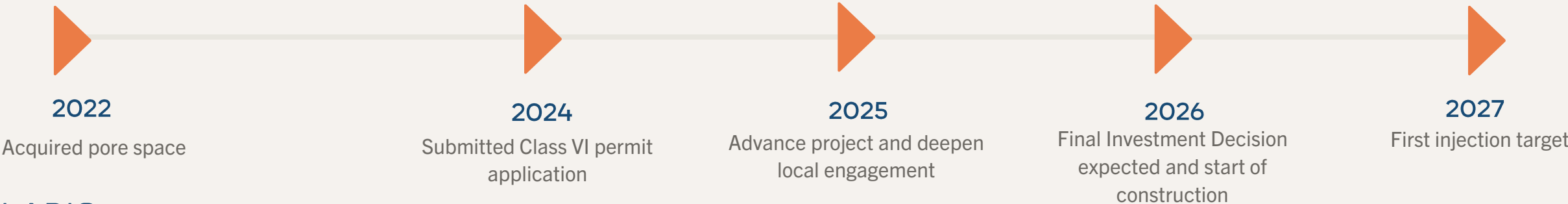
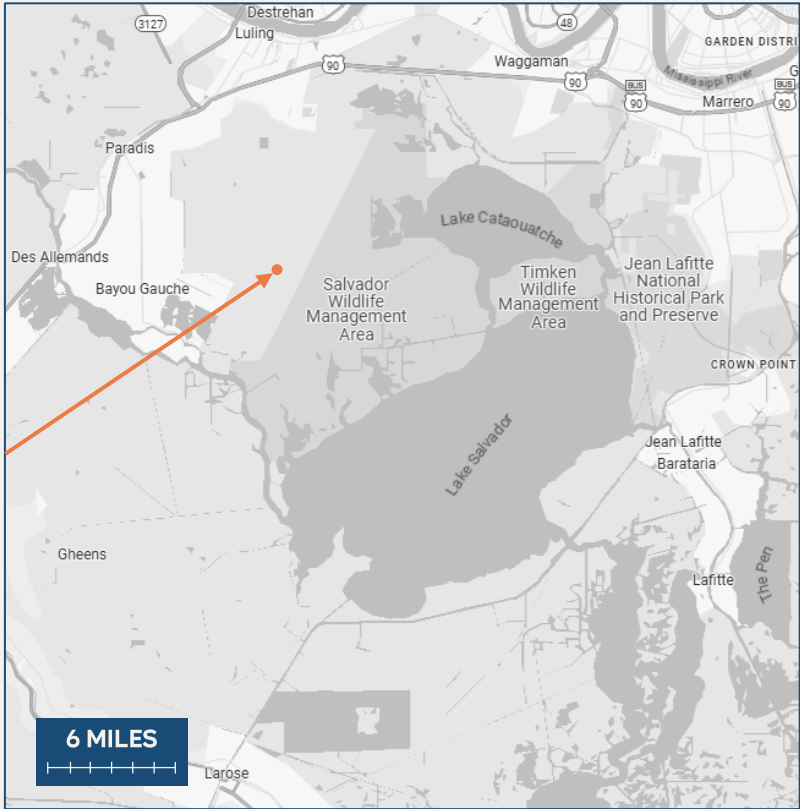
**CLASS VI STATUS**  
SUBMITTED

**PROJECT TYPE**  
SINGLE PRIVATE LANDOWNER, MULTIPLE EMITTER REGIONAL HUB

Project Libra is a 14,000-acre CO2 storage site located in St. Charles Parish, about 20 miles from New Orleans.

We currently estimate that the site has capacity to hold 80 million metric tons of CO2 and has the potential to become a regional hub for decarbonization.

The project helps Louisiana grow its economy and stay competitive in a global market that demands lower-carbon products.



# WHAT IS PROJECT LIBRA'S STATUS?

WE ARE IN THE **EARLY STAGES** OF DEVELOPING A 14,000-ACRE STORAGE SITE IN ST. CHARLES PARISH.

Our world-class technical team selected this site based on extensive analysis of the area and subsurface qualities.

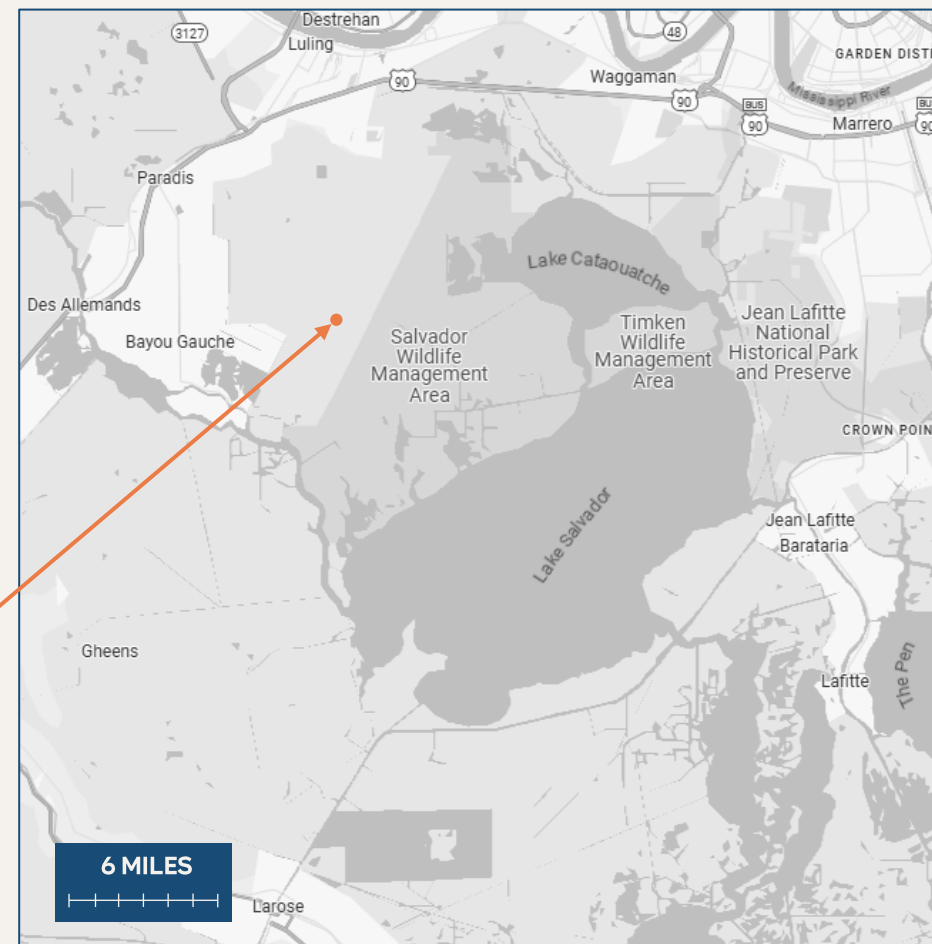
Lapis is in the process of permitting the site with multiple agencies.

It takes years to obtain a Class VI permit—the type of permit required to inject CO2 underground for safe, permanent storage.

We submitted our Class VI permit application in late 2024. As we continue to confirm the site's feasibility and obtain technical data, we are engaging with many stakeholders.

## APPROXIMATE SITE LOCATION

~6 miles from Lake Salvador  
~2.25 miles from the nearest building



# HOW ARE WE ENGAGING IN ST. CHARLES PARISH?

## CCS & PROJECT EDUCATION

In August, we sponsored our first CCS education session at the Des Allemands firehouse. We'll continue to host and attend events to give the public opportunities to learn more about CCS.

## COMMUNITY EVENTS

We are introducing our company to the community by attending events like the United Way's "Battle for the Paddle" jambalaya and gumbo cookoff.

## COMMUNITY PARTNERSHIPS

We are proud to serve as a Corporate partner to RJ Vial Elementary School, providing support for students and teachers.



On May 15, Lapis team members donated gift cards from local businesses for teacher appreciation week at RJ Vial Elementary School.

*From left: Assistant Principal Shannon Madden, Lapis VP External Affairs Lauren Berry, Principal Christina Mullins, Lapis Director Communications Ellen Schultz.*

# WHAT PERMITS ARE IN PROCESS?

CCS is a highly regulated industry requiring state and federal permits that take several years to obtain.

GOVERNING ENTITY	PERMIT TYPE	STATUS AND TRACKING	TIMING
Louisiana Dept. of Energy and Natural Resources – Office of Conservation, Injection & Mining	<b>Class VI Injection Permit</b> Typically must receive Class V permit(s) before obtaining Class VI permit.	Submitted – view our <a href="#">full Class VI application here</a> .	Estimated end of 2026
	Coastal Use permits (below table) are required to construct the infrastructure needed to build a Class VI well (road, pad, etc.).		
	<b>Class V Permit(s)</b> Monitoring wells (to monitor CO2 once injected), water wells (to monitor water quality), stratigraphic well (to collect geological information).	Received Class V permit for stratigraphic test well – <a href="#">view here</a> .	Received March 27, 2025

GOVERNING ENTITY	PERMIT TYPE	STATUS AND TRACKING	TIMING
Louisiana Dept. of Energy and Natural Resources – Office of Coastal Mgmt.	<b>Coastal Use Permit;</b> required for construction work (well pad, access road, receiving facility, 16-inch pipeline) near proposed injection site, located entirely on private property.	Submitted – <a href="#">view here</a> . Comments closed.	2025
U.S. Army Corps of Engineers <i>(Commenting agencies: NOAA Fisheries, U.S. EPA, U.S. Dept. of Interior, U.S. Fish and Wildlife Service)</i>	<b>Section 404 (Clean Water Act) Permit;</b> required for construction work (well pad, access road, receiving facility, 16-inch pipeline) near proposed injection site, located entirely on private property.	Submitted – <a href="#">view here</a> . Comments closed.	2025

▶ VIEW A MORE DETAILED LIST OF PERMITS



# PROJECT LIBRA FOOTPRINT

## ▶ MONITORING WELLS

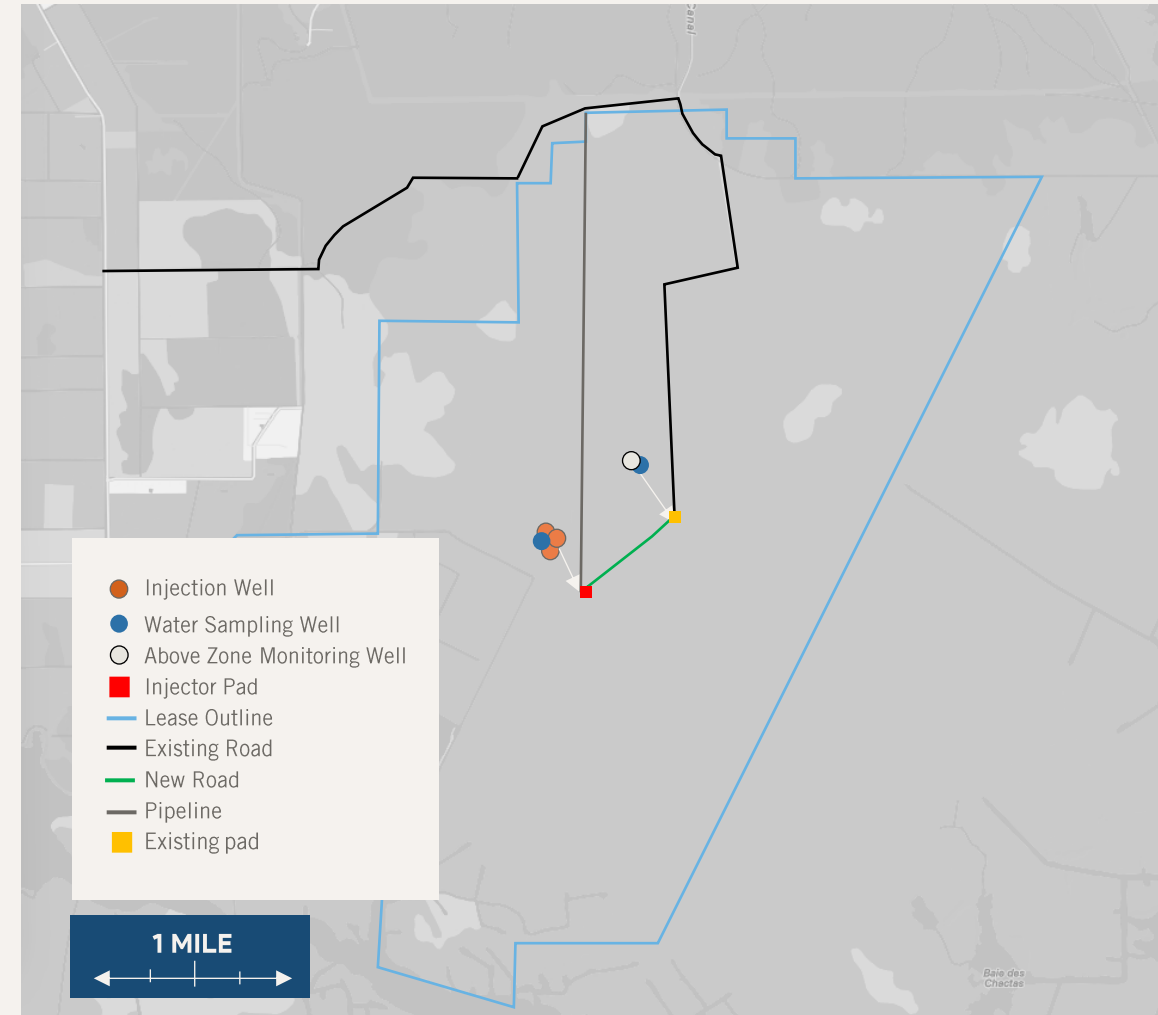
We will monitor reservoir pressure 24/7 using downhole gauges in the injection wells. We will also install two water wells to monitor water quality.

## ▶ EXISTING OIL AND GAS INFRASTRUCTURE

We screened the area for oil and gas wells before we moved forward with the project. While there is no active production in the area relevant to our permit, there is old infrastructure associated with oil and gas, which will be properly remediated.

## ▶ REMEDIATING FORMER OIL AND GAS WELLS

We will follow established procedures to safely and permanently plug and abandon wells formerly used for oil and gas. This process requires us to use corrosion-resistant cement around all well casings—including confining zones—to prevent potential CO2 migration.





# PROTECTIVE TOP SEALS AND INJECTION ZONES



## SHALES: SEAL

Shales protect Underground Sources of Drinking Water (USDW) from CO<sub>2</sub> migration. These rocks are impermeable—CO<sub>2</sub> cannot move through them. For Libra, multiple layers of thick (hundreds of feet thick) shale act as seals that prevent CO<sub>2</sub> movement.



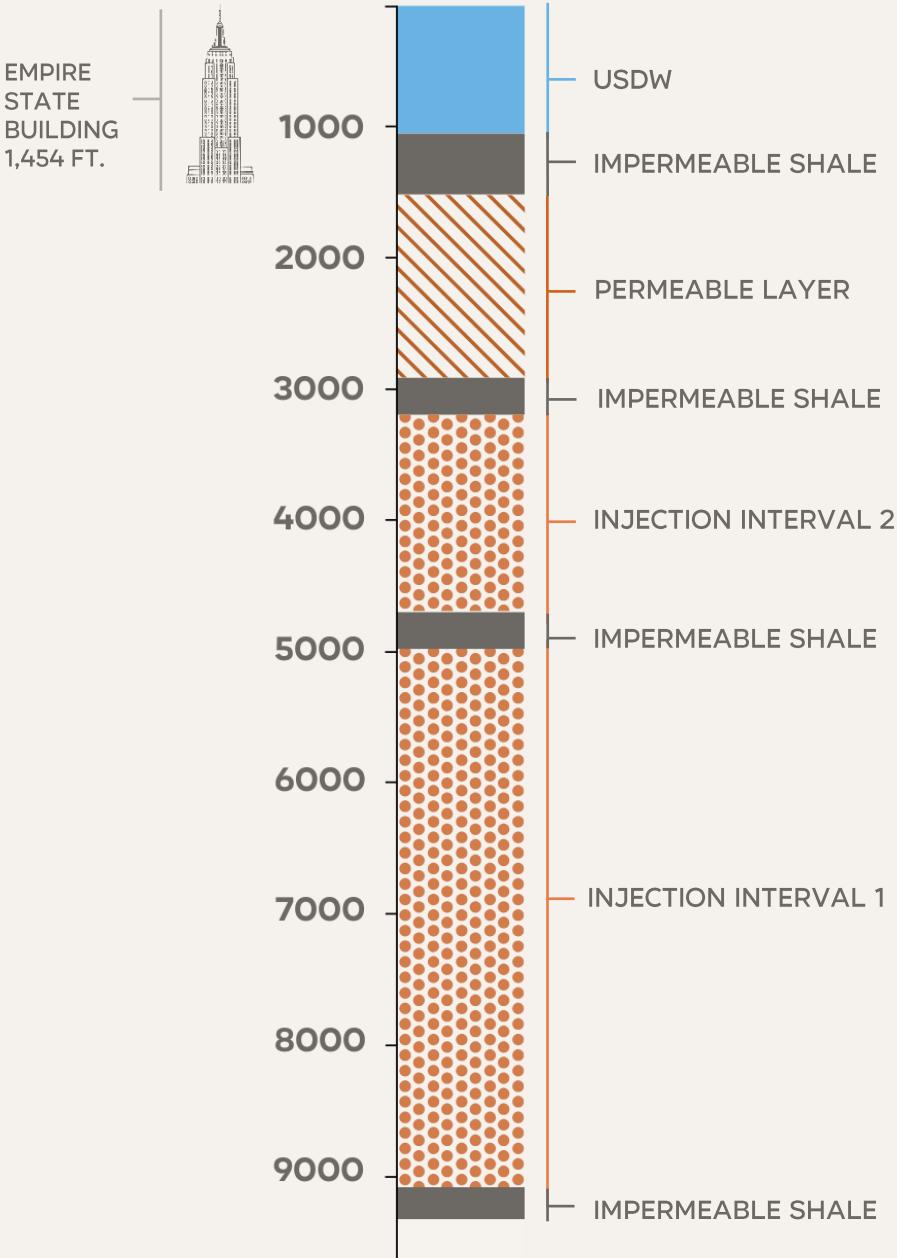
## SANDSTONES: INJECTION ZONE

Sandstone is a highly porous rock—imagine a sponge—with tiny gaps between sand grains filled with saline (non-potable water, i.e., not safe for drinking). During injection, CO<sub>2</sub> displaces this salty water and enters the sandstone. Libra’s subsurface features sandstone with excellent porosity and connectivity, allowing pressure to dissipate more easily than in tighter rock.



## CO<sub>2</sub> STORAGE ZONE

For Libra, we’re targeting two injection intervals that are more than 3,000 feet below the surface and 2,300+ feet below the USDW. We plan to inject into the lowermost interval first, at a depth that’s similar to stacking more than three Empire State Buildings underground.



Note: This is a simplified illustration.



# LAPIS

ABOUT CLASS VI PERMITS

# WHAT IS A CLASS VI PERMIT?

Class VI is the type of permit needed to inject CO2 underground.

## CLASS VI WELLS ARE SUBJECT TO A RIGOROUS PERMITTING PROCESS.

The time frame from application to injection typically takes years and a number of additional permits from various state and federal agencies.

Class VI wells—the type of well needed to inject CO2 underground for safe, permanent storage—are designed to rigorous standards, more so than oil and gas wells.

## THE LOUISIANA DEPARTMENT OF ENERGY AND NATURAL RESOURCES (LDENR) MANAGES CLASS VI PERMITS.

The state has a tracker where you can see all applications and their status [here](#).

Once the Lapis Class VI permit has undergone further review, LDENR will hold a public hearing. This will likely occur in 2026.

## KEY PERMITS NEEDED TO START INJECTION:

1. Coastal use permit and section 404 (Clean Water Act) permit to construct the infrastructure needed for a Class VI well.
2. Class V permit(s) to conduct geotechnical tests and drill monitoring wells.
3. Class VI permit to inject.

- ▶ [VIEW OUR CLASS VI PERMIT APPLICATION](#)
- ▶ [VIEW A MORE DETAILED LIST OF PERMITS](#)
- ▶ [LEARN MORE ABOUT LOUISIANA'S CCS REGULATORY PROCESS](#)

# WHAT DOES A CLASS VI APPLICATION ENTAIL?

Class VI permits are designed to protect public health, the environment, and Underground Sources of Drinking Water (USDWs).

## APPLICATION REQUIREMENTS:

While Class VI applications can differ in structure and level of detail, they must cover the below areas:

1. Administrative information
2. Site characterization
3. Area of review and corrective action plan
4. Well construction and design
5. Testing and monitoring plans
6. Post-injection site care and closure
7. Emergency and remedial response
8. Financial responsibility

## CLASS VI APPLICATION STEPS:

- ▶ Identify a potential site location. Evaluate site geology, groundwater, and existing wells.
- ▶ Create a detailed Class VI application using regulatory guidance.
- ▶ Submit application to LDENR. LDENR reviews for completeness.
- ▶ Enter technical review. Provide LDENR with new or additional information as requested.
- ▶ Complete technical review. LDENR publishes draft permit and schedules public hearing.
- ▶ Following public hearing, LDENR issues final decision. If permit is approved, construction commences in line with permit conditions.

# HOW IS LAPIS' CLASS VI APPLICATION STRUCTURED?

1. SITE CHARACTERIZATION	Evaluates the site's geologic properties to make sure the proposed well is in a subsurface area well suited to permanent CO <sub>2</sub> storage.
2. PLUME MODEL	Depicts the area underground where CO <sub>2</sub> is projected to migrate over time.
3. AREA OF REVIEW AND CORRECTIVE ACTION PLAN	The Area of Review (AOR) defines the region around the injection wells where CO <sub>2</sub> might migrate or where the underground pressure is projected to change due to CO <sub>2</sub> injection (also known as the 'critical pressure front'). The AOR is created using plume and critical pressure front models. Corrective action plans identify and address risks in the AOR.
4. ENGINEERING DESIGN AND OPERATING STRATEGY	Specifies the parameters of well construction to ensure well integrity.
5. TESTING AND MONITORING PLAN	Defines how an operator will monitor well integrity, including information about monitoring wells, groundwater monitoring wells, and CO <sub>2</sub> plume and pressure front monitoring. These plans are in place throughout the life of the project, even after injection.
6. INJECTION WELL PLUGGING PLAN	Details how we will permanently plug the well to prevent fluid movement.
7. POST-INJECTION SITE CARE AND SITE CLOSURE PLAN	Outlines how we will care for and close the site after permanently plugging the well.
8. EMERGENCY AND REMEDIAL RESPONSE PLAN	Provides site-specific emergency response plans, including various risk scenarios, response timelines, and communication plans.
9. FINANCIAL ASSURANCE	Describes the financial instruments we have to cover the cost of corrective action, including plugging, post-injection site care, and emergency response.
10. ENVIRONMENTAL JUSTICE	Reviews the demographics of the communities near our project to evaluate potential impacts to vulnerable communities.
11. IT QUESTIONS	Specific LDENR requirement; details potential environmental impacts and alternatives.

# CLASS VI FAQ

## WHAT'S THE STATUS OF YOUR CLASS VI APPLICATION?

Our application has been marked administratively complete but has not started technical review. We submitted our application in Nov. 2024.

## HOW OFTEN IS THE CLASS VI APPLICATION EDITED?

Once the application goes into technical review, it is continuously iterated based on LDENR feedback. We don't anticipate LDENR posting updates until the application reaches the "draft permit" phase, but will post permit updates to our website periodically.

## WILL THE PUBLIC BE INFORMED OF APPLICATION EDITS?

We will regularly update the [permit on our website](#) once it reaches the technical review phase (timing TBD).

## WHY IS SOME INFORMATION REDACTED IN YOUR APPLICATION?

We're committed to transparency. We have minimized redactions to copyrighted or proprietary commercial information. For example, we redacted proprietary seismic data because it reflects significant commercial investment and competitive subsurface insights. Revealing that information could undermine our ability to compete fairly and protect our project investments. Regulators have full access to all data to ensure project safety and integrity.

## WHEN WILL A PUBLIC HEARING BE HELD?

We do not yet have clarity on a potential public hearing date for our Class VI permit application. We will have a better idea once our application enters technical review. In the meantime, we will conduct additional information sessions and events, which will be announced on [Facebook](#). If you have a question in the meantime, please reach out to [info@lapiscarbonsolutions.com](mailto:info@lapiscarbonsolutions.com) – we'd love to hear from you.

## WHO IS INVOLVED WITH YOUR CLASS VI APPLICATION?

While Lapis internal experts completed the majority of our Class VI application, we also employed third-party firms to assist in preparing the application, as is common with Class VI applications. This includes Lonquist Sequestration, a third-party that helped us ensure our application was as comprehensive as possible. We also employ a local environmental firm which has extensive experience in the unique environmental conditions of St. Charles Parish.

## WHY ARE THERE DIFFERENT ENTITY NAMES LISTED ON YOUR APPLICATION?

We changed our name from Lapis Energy to Lapis Carbon Solutions in 2025 to better reflect what we do. The names listed on the application reflect our former name and our registered name in the state of Louisiana, as well as the project name.

 [VIEW OUR CLASS VI APPLICATION](#)



# LAPIS

ABOUT CCS



# IS CCS A GOOD IDEA FOR LOUISIANA?

CCS WILL CREATE JOBS, ATTRACT INVESTMENT, AND KEEP LOUISIANA COMPETITIVE.

▶ The [Louisiana Department of Energy and Natural Resources and Louisiana Economic Development](#) sum it up:

Increased investment means more jobs, more growth, and more community investment both short- and long-term.

CCS strengthens existing industries and keeps Louisiana at the forefront of innovation.

Louisiana has an established pipeline network, generational industry expertise, and natural geological formations that provide safe, permanent CO2 storage.

# WHAT IS CCS?

Carbon Capture and Storage (CCS) is the process of separating, then permanently and safely storing, CO2.

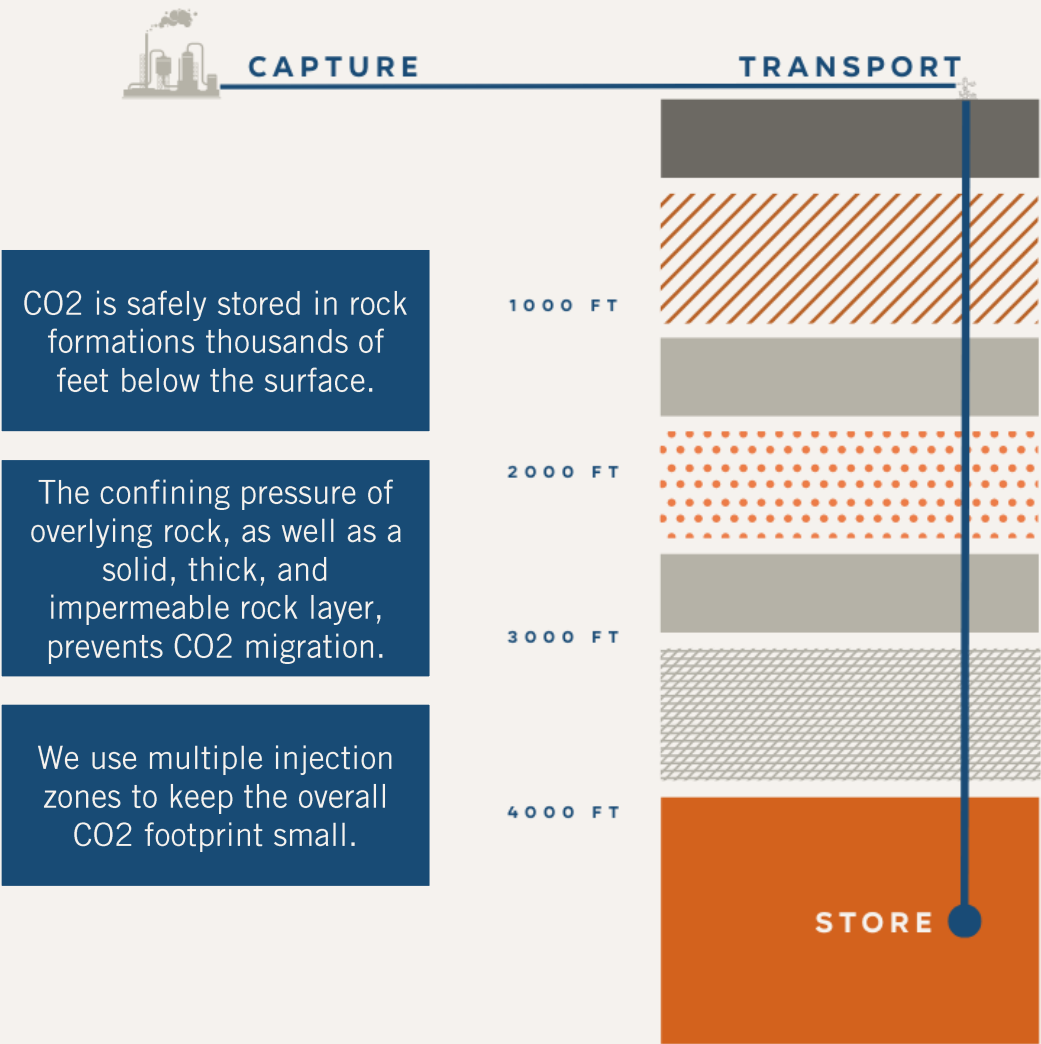
- 1

**CAPTURE**  
Separate CO2 from other gases produced at large industrial process facilities.
- 2

**TRANSPORT**  
Compress and transport CO2 to a suitable site for geological storage.
- 3

**OPERATE**  
Inject and rigorously monitor in accordance with Class VI and industry standards.
- 4

**SAFE, PERMANENT STORAGE**  
CO2 is stored deep underground in formations thousands of feet below the surface. The site is monitored 24/7 throughout operations and for more than a decade post-operations per EPA and/or LDENR standards.



# CCS: A TESTED TECHNOLOGY

## CAPTURE

- Capture technology **BEGAN IN THE 1930S**.
- At least **160 MILLION METRIC TONS** of CO<sub>2</sub> are captured every year for use in industries such as food, beverage, and fertilizers.

## TRANSPORT

- There are **5,000+ MILES** of CO<sub>2</sub> pipelines in the U.S.
- In the last 50 years, pipelines have transported **OVER 500 MILLION** metric tons of CO<sub>2</sub>.
- During the **ENTIRE PERIOD** of CO<sub>2</sub> pipeline operation there have been **NO RELATED FATALITIES**.

## STORE

- In the U.S., over **850 MILLION METRIC TONS** of CO<sub>2</sub> have been safely injected since the 1970s for a process known as enhanced oil recovery.
- **OVER 20 MILLION** metric tons of CO<sub>2</sub> have been injected into dedicated geological storage sites for climate purposes since 1996.

# IS CCS SAFE?

CCS is a safe, proven way to prevent CO2 from entering the atmosphere.

## CCS HAS EXISTED SAFELY FOR YEARS.

CCS is not a new technology and is heavily regulated by the State of Louisiana based on EPA rules and regulations.

CO2 injection for enhanced oil recovery has existed safely across the U.S. and in coastal Louisiana for decades.

## OPERATORS ARE REQUIRED TO DEVELOP ROBUST, 24/7 MONITORING PROCESSES.

Our Class VI application details the many monitoring mechanisms we will use to keep people safe. This includes multiple monitoring wells, water wells, and seismic monitoring devices.

## CO2 PIPELINES HAVE AN EXEMPLARY SAFETY RECORD.

About 5,000 miles of CO2 pipelines already exist across the U.S.

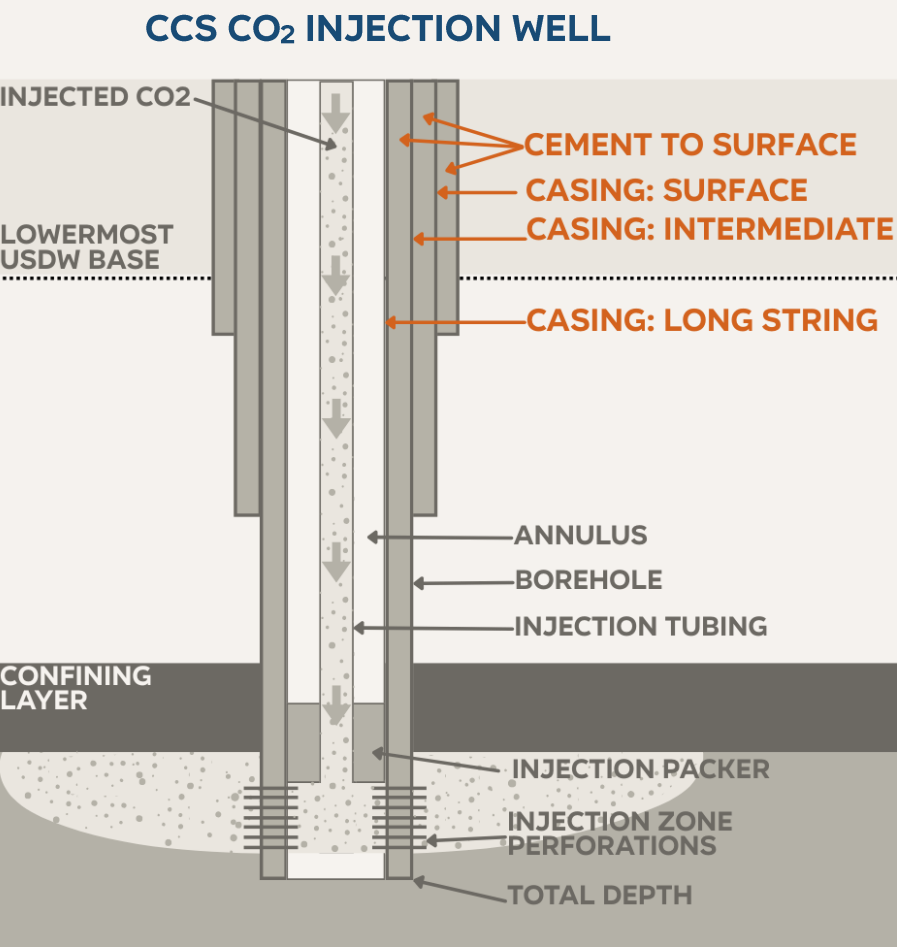
These pipelines have an average incident rate of 0.001 per mile per year.

Since the U.S. Pipeline and Hazardous Materials Safety Administration (PHMSA) began overseeing CO2 pipeline safety in 1988, only one incident reached the threshold of a serious incident.

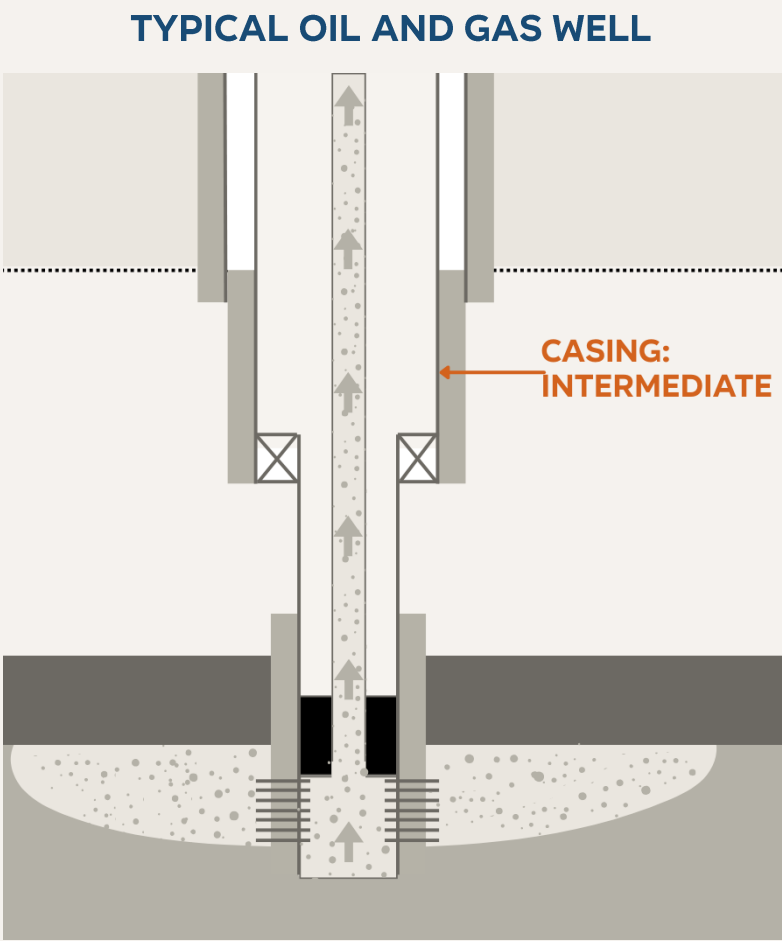
No fatalities associated with CO2 pipelines have ever been reported.

# WELL SPECIFICATIONS: CO2 INJECTION VS. OIL AND GAS

CCS wells are designed to exceptionally high standards—more so than a typical oil and gas well.



**4-8X COST OF A REGULAR OIL AND GAS WELL**



All casing strings extend to surface

All casing strings are cemented to surface

Use of corrosion resistant alloy over injection interval

Use of highly corrosive resistant cement over entirety of well bore surface vs. Portland cement and regular steel casing in an oil and gas well



# LAPIS

COMMUNITY QUESTIONS

# WHERE IS THE CO2 COMING FROM? IS THERE A PIPELINE?

## THE ONLY PIPELINE LAPIS IS CURRENTLY PERMITTING IS FROM THE INJECTION SITE TO THE EDGE OF THE PRIVATE PROPERTY.

We are working to secure industrial emissions for this project. Lapis will not have clarity on pipelines and routing until such contracts are finalized.

The only pipeline currently being permitted through our coastal use permit application is a ~3.56-mile pipeline located entirely within the private property project site that will run from the injection site to a tie-in point.

## ANY ADDITIONAL PIPELINES OR INFRASTRUCTURE MUST GO THROUGH A SEPARATE PERMITTING PROCESS.

Pipelines cannot be built without going through a separate permitting process. This process would include permitting at the federal and state level, dependent on the pipeline's location.

If any additional infrastructure is proposed, the public will weigh in through a separate permitting process.

READ MORE ABOUT CO2 PIPELINE SAFETY 



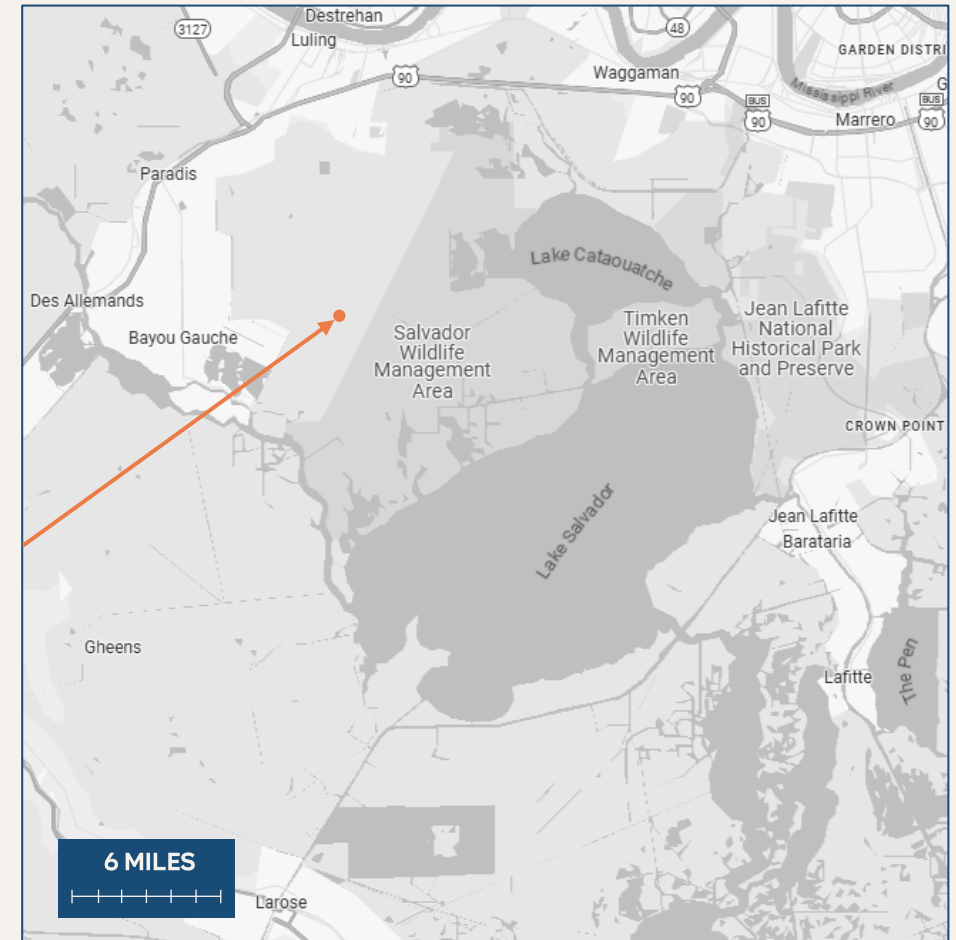
# ARE YOU STORING CO2 UNDER LAKE SALVADOR?

## NO, PROJECT LIBRA IS ABOUT SIX MILES FROM LAKE SALVADOR.

The project is located completely on private property and designed to maximize use of existing infrastructure and minimize potential disruption.

The plume—the distance CO2 will travel once injected underground—is also not under Lake Salvador.

The U.S. Army Corps of Engineers (USACE) is responsible for waters of the U.S., including wetlands. Our project is located in wetlands that are considered by the USACE to be tied to the Lake Salvador System, which is why the USACE stated that our project will “affect the waters of Lake Salvador,” meaning it is in scope of USACE review. In terms of its impact, the project is located six miles away and outside of the Salvador Wildlife Management Area and is not projected to have any impacts to Lake Salvador or the Lake Salvador Wildlife Management Area.



# WHAT HAPPENED IN SATARTIA, MS? WAS LAPIS INVOLVED?

The Satartia, Mississippi rupture is the only serious incident related to CO2 recorded since 1988 by PHMSA.

## WHAT HAPPENED:

In Satartia, Mississippi, a pipeline ruptured after days of heavy rainfall that in turn caused landslides and shifting soil.

The area's low-lying geography caused CO2 to dissipate slowly, impacting health and vehicle functioning.

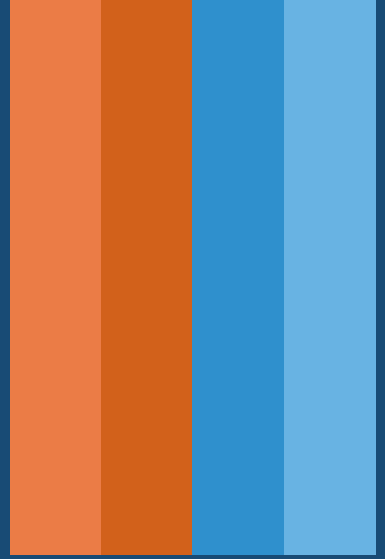
## WE HAVE NO LINK TO THE SATARTIA PIPELINE RUPTURE.

Like the rest of the industry, we've learned from what happened in Satartia. Our subsurface and engineering experts have a deep understanding of how best to select, manage, and monitor sites for safe, long-term storage.

# MAY 2025 SUMMARY UPDATES

We will maintain a list of significant updates so stakeholders can track changes month over month.

- **Page 2:** Added details about the purpose of this deck, as well as a link to our new Facebook page.
- **Page 3:** Updated language to reflect our expansion into utilization.
- **Page 4:** Added scale to map.
- **Page 5:** Updated distance from nearest building to 2.25 mi from 2.7 mi. This is to correct a typo and ensure consistency with our Class VI application. Added scale to map.
- **Page 6:** Updated photo.
- **Page 7:** Clarified the construction work being permitted and updated permit status.
- **Page 8:** Revised map/graphic to improve readability.
- **Page 9:** Clarified that the graphic is an illustration, updated language to clarify sandstone characteristics and storage zone depths.
- **Pages 10-14:** Added a new section on our Class VI permit, which is now [posted on our website](#).
- **Page 19:** Added a link to Lapis' safety page.
- **Page 23:** Provided additional commentary on the Corps' stipulation that the proposed permitted work would “affect the waters of Lake Salvador.”



# LAPIS

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