**LOUISIANA WILDLIFE FEDERATION**
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January 3, 2024

Keith Hall
Task Force on Local Impacts of Carbon Capture and Sequestration
P.O. Box 94183
Baton Rouge, LA 70804
via: snatr@legis.la.gov

**RE: Comments Regarding the Impacts of Carbon Capture and Sequestration Projects**

Dear Chairman Hall and Task Force Members,

Louisiana Wildlife Federation (LWF) would like to offer the following comments regarding the impacts of carbon capture and sequestration projects in Louisiana for the Task Force to consider as you prepare recommendations for the upcoming report to the Senate Committee on Natural Resources and the House Committee on Natural Resources and Environment.

Carbon Capture and Sequestration as a means of emissions reduction

As one of the nation's leading suppliers of energy, Louisiana ranks fourth nationally in total energy consumption (and, thus, carbon dioxide [CO2] emissions) and second in per capita energy consumption, largely due to energy-intensive industries. As a result, significant amounts of carbon dioxide are released into the atmosphere from these fossil fuel–burning plants and industrial activity like natural gas and hydrogen-producing facilities.

In March 2023, Dr. Mark Zappi, professor of chemical engineering at the University of Louisiana at Lafayette and executive director of the Energy Institute of Louisiana, provided a presentation at an industry briefing held at the Louisiana Association for Business and Industry. Dr. Zappi highlighted that industrial emissions account for only 22% of total greenhouse gas emissions nationally. In Louisiana, however, most emissions (62%) come from industries such as chemical, petroleum, and natural gas.

LWF embraces the science that industrial plants burning fossil fuels is a top source of carbon pollution and that cutting these emissions can improve air quality and help fight climate change while the state transitions to cleaner sources of energy. We acknowledge that CCS projects and the expansion of blue hydrogen production may advance the federal and state emissions reduction goals in the short term as the world transitions to more renewable energy production. LWF believes that CCS is an effective process *when properly regulated and monitored* for potential adverse impacts on the public and its natural resources.

Considering surface impacts of carbon capture and sequestration projects

While Louisiana may have adequate subsurface conditions for CCS projects, regulators must consider site-specific surface impacts to habitat and surrounding communities already overburdened by the impacts of industry. Not all sites with proper underground pore space are fitting for such projects.

For example, Lake Maurepas is an important estuarine system that is a popular recreational spot, contributing to Louisiana's $1.6 billion outdoor recreation sector. Louisiana's estuaries provide valuable breeding, feeding, and nursery ground for many fish and shellfish, which support the state's commercial and recreational fishing industries.

Lake Maurepas hosts a variety of wildlife species including bass, crappie, catfish, bream, wood ducks, whistling ducks, egrets, and herons. The adjacent Maurepas Swamp Wildlife Management Area is also home to bald eagles and osprey. Neotropical migratory birds utilize this coastal forest habitat during fall and spring migrations in the Mississippi Flyway.

One of the largest forested wetlands in the nation, Maurepas Swamp serves as critical habitat for both people and wildlife. This swamp protects surrounding communities in St. John the Baptist, St. James, Ascension, and Livingston Parishes by serving as a buffer to storm surge during hurricanes and storage for floodwaters.

The Coastal Protection and Restoration Authority has highlighted restoration of Maurepas Swamp as a priority project in its Coastal Master Plan. The project will cost approximately $300 million to construct and will improve the health of the swamp by reconnecting it to the Mississippi River and its freshwater, sediment, and nutrients. Wildlife benefits from this project include improved primary productivity and water quality, increasing food resources for freshwater fish, which themselves serve as food for other wildlife including wading and migratory birds, alligators, and bald eagles. *It's critical that this investment is protected.*

Although LWF understands the role CCS projects will play in emissions reduction, we do not support such a project in sensitive habitats such as Lake Maurepas due to its unique ecologically important estuarine system for which adequate mitigation of damage cannot be guaranteed, and for which its scenic value and recreational use would be greatly diminished. (See Appendix A for LWF's resolution, "Support for Carbon Capture to Reduce CO2 Emissions but Not in Sited in Lake Maurepas".)

Class VI primacy for Louisiana

In LWF's comments on July 29, 2023 to the Environmental Protection Agency (EPA) regarding Louisiana's application for Class VI primacy, LWF noted that a state's UIC program must meet strict safeguards when considering a Class VI well permit application to ensure protection of the public's drinking water including requiring applicants have:

- Operating requirements to ensure the injection activity will not endanger USDWs or human health.

- Financial assurance mechanisms sufficient to cover the cost for all phases of the geologic sequestration project including the post injection site care period and until site closure has been approved by the permitting authority.
- Emergency and remedial response plans.
- Reporting of all testing and monitoring results to the permitting authority to ensure the well is operating in compliance with all permit and regulatory requirements.

To the extent that these priorities are applied, LWF has supported primacy for the state (LWF's full comments on state primacy can be found attached in Appendix B).

That being said, LWF does have some concerns that need to be addressed if Louisiana is to adequately regulate Class IV permits:

*Environmental Justice*:

LWF is concerned that Louisiana could repeat mistakes of the past if it is too quick to advance the next energy industry sector without due diligence in evaluating permit applications in a rigorous and intentional manner.

Louisiana continues to grapple with over 4,600 abandoned and unplugged oil and gas wells, threatening the health and safety of the surrounding community from methane emissions. The state's efforts to remedy the situation and compel industry to plug unused wells has resulted in only a fraction of those wells plugged and many abandoned. Increased enforcement will be required to identify companies responsible and millions in investment for that to become a reality.

This history gives rise to concerns about the state's commitment to adequately monitor and hold permit holders accountable for the responsible management, maintenance and disposition of these new CO2 pipelines and wells.

*Siting*

Considering the substantial land loss Louisiana has experienced over the last century from oil and gas exploration and canals that were never filled in, LWF is concerned about the additional pipeline canals needed to facilitate the transport of CO2 – particularly since the surface risks of CCS are most likely to occur during the transport stage.

When wells are proposed to be sited near populous areas or on public lands utilized by the public, then rigorous environmental assessments as well as public input should be critical considerations, beyond simply geological adequacy.

*Public Input*

If the state is to offer state lands as sites for Class VI wells, LWF would argue the public participation process should involve additional steps to augment the minimum required.

For the public to have confidence in the state's ability to properly regulate an industry, they need to be engaged.

While the state may not have the legal obligation to educate the public, if it seeks to use CCS as a means of reaching its climate goals – which it views as a public protection action – it should do a better job of informing the public. Failure to do so diminishes the public's faith in its government, no matter how well-intentioned.

LWF urges the state to:

- Give the public expanded opportunity to comment.
- Convene focus groups to solicit feedback on the impact to communities.
- Design public meetings that aim for dialogue rather than debate so that mutual learning can occur.
- Utilize social media, broadcast media and visible public signage relative to a project siting.

*Staffing*

Louisiana has struggled to adequately fund state enforcement agencies who are responsible for ensuring state and federal rules, regulations and laws governing the safety of the public are enforced. A 2019 audit suggested reduced staff at the Louisiana Department of Environmental Quality led the agency to fall behind on enforcing violations.

Similarly, the Department of Natural Resources Office of Conservation had fewer positions in 2023 compared to 2008. This gives concern to LWF that the agency has the workforce and resources necessary to responsibly enforce a new program. While we are encouraged at the legislature's recent approval of seven new employees and over $800,000 in new funding for the Class VI UIC program, we remain concerned whether the state is prepared to take on this highly technical industry for the long term and attract and retain the expertise needed to adequately provide rigorous analysis of applications. The state must have a strong commitment to ensuring the Office of Conservation is adequately funded to keep pace with evolving technologies, as the technology needed to monitor well activity is expensive.

Conclusion

While Louisiana has decades of experience with injecting carbon dioxide into the earth for enhanced oil recovery, there is no such experience permitting this technology at the scale that is about to occur.

How do we ensure that injection wells do not leave behind the damage that onshore and offshore oil and gas drilling did at the turn of the century and some industrial plants continue to do today?

How do we ensure our communities are protected?

Our concern is that while the state can assert its commitment to strong enforcement and stricter rules, will it work independently to ensure those companies that are permitted to drill Class VI wells take responsibility for all permitted activities? When the state through the Secretary of the Department of Natural Resources, the Governor and the Legislature all cite Class VI wells as the energy future, the commitments of today must be upheld by the government of tomorrow.

LWF endorses federal guidance issued by the White House Council on Environmental Quality that requires close monitoring and enforcement of existing regulations and the development of new tools to monitor and improve safety of CCS projects while also reducing the number of incidents that result in leakage of carbon dioxide.

We believe strongly that CCS should only advance in Louisiana under a robust regulatory structure that is informed by science and past experience, meaningful public engagement, and takes into consideration the impact of industrial activity on overburdened communities.

Finally, we cannot emphasize enough that the state must consider local input and employ rigorous cost-benefit analyses to ensure the state's assets are protected from irreversible ecological damage and public access to healthy recreational opportunities of our Sportsman's Paradise are preserved for residents and future generations to enjoy.

About Louisiana Wildlife Federation

Louisiana Wildlife Federation is a statewide, nonprofit organization that represents 21 affiliate organizations and more than 10,000 members dedicated to the conservation of Louisiana's wildlife and natural resources. If you have any questions, please contact Stacy Ortego at stacy@lawildlifefed.org. Thank you for considerations of these comments.

Sincerely,

Rebecca Triche
Executive Director

Stacy Ortego
Coastal Policy Manager

# APPENDIX A

# LWF RESOLUTION
# ON CARBON CAPTURE AND SEQUESTRATION

LOUISIANA WILDLIFE FEDERATION
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Resolution No. 3, 2023

**SUBJECT: Support for Carbon Capture to Reduce C02 Emissions but Not Sited in Lake Maurepas**

WHEREAS Louisiana's reputation as Sportsman's Paradise is integrally tied to the health and abundance of public land, forests, bayous, rivers, lakes, estuaries, and wetlands in our state that support the diversity of wildlife species and the natural resources we enjoy; and

WHEREAS the outdoor recreation sector contributes $1.6 billion in revenue to the state economy annually and Louisiana's estuaries provide valuable breeding, spawning, feeding and nursery ground for many fish and shellfish at some point during their life cycles, which supports Louisiana's commercial and recreational fishing industries; and

WHEREAS Lake Maurepas is a 15,000-plus acre shallow brackish water tidal estuarine system that receives freshwater from local rivers as part of the Lake Pontchartrain watershed; and is home to bass, crappie, catfish and bream; resident birds, including wood ducks, black-bellied whistling ducks, egrets, and herons which can be found in the area year-round; and

WHEREAS Lake Maurepas as an estuary is important to the lifecycle of shrimp, is a breeding and winter hibernation site for blue crabs, and houses Rangia clams that filter water and provide food for other species; and

WHEREAS Lake Maurepas is a popular location for recreational boating and water sport activities for local residents and families; and

WHEREAS the adjacent Maurepas Swamp Wildlife Management Area is home to bald eagles and osprey and numerous species of neotropical migrant birds who use this coastal forest habitat during fall and spring migrations in the Mississippi Flyway; and

WHEREAS carbon capture utilization and storage (CCUS) is a process employed to reduce the amount of $CO_2$ in the atmosphere, whereby carbon is captured and either utilized for another process, or liquified and transported via pipelines for storage deep in subsurface geological formations; and

WHEREAS hydrogen production is called 'blue' whenever the $CO_2$ generated from steam reforming is captured and stored, thereby essentially eliminating the $CO_2$ emission output; and

WHEREAS Air Products Blue Energy, LLC, is planning to construct a $4.5 billion blue hydrogen complex in Darrow, Louisiana located in Asension Parish with plans to capture and store the $CO_2$ produced from the production of hydrogen which will then be compressed and transported by pipeline to multiple inland sequestration sites including a tract comprised of 33,146 acres located in the Canal Bank area of the Maurepas Swamp Wildlife Management Area, a tract comprised of 57,100 acres consisting of Lake Maurepas and a tract comprised of 32,209 acres consisting of Sabine Lake; and

WHEREAS residents living and working around Lake Maurepas have been vocal advocates against the speed in which this project is advancing concerned that regulators are not giving ample

consideration to protecting area residents from the dangers of possible $CO_2$ leakage from catastrophic failures; impact to Lake recreational activities; the potential for faults in the geological formations below the Lake; disruption to wildlife and fisheries from seismic testing and future monitoring; fears of over-dredging of the lake's water bottoms for deepening transport channels; and subsidence from previous drilling.

THEREFORE, BE IT RESOLVED that LWF does hereby acknowledge that carbon capture utilization and storage projects and the expansion of blue hydrogen production for the purpose of reducing $CO_2$ atmospheric emissions can advance the federal and state goals of reducing carbon emissions in the short term as the world transitions to more renewable energy production; and further affirms that carbon capture, utilization and storage (CCUS) is an effective process when properly regulated and monitored for potential adverse impacts on the public and its natural resources; and

BE IT FURTHER RESOLVED that LWF does not support a CCUS project sited in Lake Maurepas due to its unique ecologically important estuarine system for which adequate mitigation of damage cannot be guaranteed, and for which its scenic value and recreational use would be greatly diminished; and

BE IT FURTHER RESOLVED that LWF urges the state of Louisiana to first and foremost protect the safety and viability of the state's publicly-held forests, lakes, swamps and other wetland habitats by creating siting criteria for future CCUS projects that considers local input, and employs cost-benefit analyses to ensure the state's assets are protected from irreversible ecological damage and public access to healthy recreational opportunities are preserved for residents and future generations to enjoy; and

BE IT FURTHER RESOLVED that LWF recommends that before a federal or state regulatory agency permits a CCUS project that a rigorous environmental impact analysis is conducted that includes an analysis of the foreseeable direct, indirect, and cumulative effects of the construction, drilling and monitoring; that engages local communities during the scoping phase to identify alternatives to the proposed action, including alternatives that reduce environmental impacts; and which considers the long-term potential exposure to the public in the event of a catastrophic pipeline or well failure; and

BE IT FURTHER RESOLVED that LWF endorses federal guidance issued by the White House Council on Environmental Quality that requires close monitoring and enforcement of existing regulations and the development of new tools to monitor and improve safety of CCUS projects while also reducing the number of incidents that result in leakage of carbon dioxide; and

BE IT FURTHER RESOLVED that LWF believes strongly that CCUS should only advance in Louisiana under a robust regulatory structure that is informed by science and past experience, includes meaningful public engagement, and takes into consideration the impact on communities already overburdened with industrial activity; and

BE IT FURTHER RESOLVED that LWF supports meaningful legislation to create a regulatory framework for evaluating and permitting CCUS projects in Louisiana, limit the state's responsibility for capped wells and increase investment for the purpose of adequately scaling staff and resources necessary to effectively monitor and enforce federal and state laws governing CCUS.

*Adopted by the Louisiana Wildlife Federation Board of Directors at its meeting on May 13, 2023 in Baton Rouge, Louisiana.*

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# Carbon Capture, Utilization and Storage (CCUS) to Reduce CO2 Emissions in Louisiana and Concerns About Siting in Lake Maurepas

## BACKGROUND

In August of 2020, Louisiana Governor John Bel Edwards created the Climate Initiatives Task Force to 'develop policies to reduce the greenhouse gas emissions that are driving up global temperatures, increasing sea level and other risks that threaten our health and safety, quality of life, economic growth, and vital habitats and ecosystems' and charged the Task Force with making recommendations to reduce that state's greenhouse emissions to net zero by 2050.

In August of 2021, Congress passed the federal Inflation Reduction Act (IRA) reconciliation package which included clean energy tax credits and other provisions intended to make significant progress towards America's mid-century climate goal of net-zero carbon emissions by 2050 by reducing the cost of carbon capture, utilization and storage (CCUS).

CCUS is a process employed to reduce the amount of $CO_2$ in the atmosphere, whereby carbon is captured and either utilized for another process, or liquified and transported via pipelines for storage deep in subsurface geological formations.

Louisiana, as a result of its vast reserves of oil and gas, is one of the nation's leading suppliers of energy, ranking fourth nationally in total energy consumption and second in per capita energy consumption, largely because of its energy-intensive chemical, petroleum, and natural gas industries and as a result, significant amounts of carbon dioxide ($CO_2$) is released into the atmosphere from these fossil fuel–burning plants and industrial activity like natural gas and hydrogen-producing facilities.

Generating more $CO_2$ than naturally occurs, speeds up the warming or "greenhouse" effect and increases global temperatures causing stronger storms and sea level rise.

A shift to renewable energy sources such as wind and solar generated power is widely promoted as the best course of action to reduce greenhouse emissions in the long term is fully supported by LWF as the preferred method of generating hydrogen, however, research and statistics suggest that such an immediate shift is not possible due to cost considerations, so attaining net zero greenhouse emission standards in the short term will rely on capturing $CO_2$ and utilizing or storing it.

According to the Council on Environmental Quality Report to Congress on Carbon Capture, Utilization and Sequestration achieving climate goals will likely require a significant increase in the need for liquid $CO_2$ transport infrastructure requiring increased development and deployment of $CO_2$ pipelines beyond the current 5,200 miles of dedicated pipeline available.

Louisiana possesses a unique combination of the right geology, pipeline infrastructure and a robust industrial sector from which to capture $CO_2$. $CO_2$ injection technology has also been used

for decades in Louisiana for enhanced oil recovery by which oil and gas companies inject high-pressure carbon dioxide deep into reservoirs to increase the amount extracted and is currently the only industrial process that uses carbon dioxide at a significant scale.

As a means of reaching the national goal of net-zero carbon emissions by 2050, the U.S. Department of Energy has established the Regional Clean Hydrogen Hubs program (H2Hubs) with $7 billion in funding from the Bipartisan Infrastructure Law for the purpose of 'establishing six to 10 regional clean hydrogen hubs to create networks of hydrogen producers, consumers, and local connective infrastructure in close proximity to each other to accelerate the use of hydrogen as a clean energy carrier that can deliver or store tremendous amounts of energy'.

In response, the Governors of Arkansas, Louisiana, and Oklahoma have announced a bipartisan three-state partnership, known as the HALO Hydrogen Hub, and filed an application for $1.2B in H2Hub funding.

On October, 2021, Air Products Blue Energy, LLC, announced plans to construct a $4.5 billion blue hydrogen complex in Darrow, Louisiana located in Asension Parish with plans to capture and store about 95% of the $CO_2$ produced from the production of hydrogen. The captured $CO_2$ is to be compressed and transported by pipeline to multiple inland sequestration sites located along a pipeline corridor extending up to 35 miles to the east of the complex in what Louisiana Economic Development has termed world's largest permanent carbon dioxide sequestration endeavor to date, and;

Louisiana State Mineral & Energy Board ('Board') approved Resolution #21-10-051 on October 13, 2021 approving an Operating Agreement ('Agreement') between the Board and Air Products Blue Energy, LLC for the sequestration of $CO_2$ beneath state property in Lake Maurepas, Maurepas Swamp WMA and Sabine Lake, located in Livingston, St. James, St. John the Baptist, Tangipahoa and Cameron parishes; and

The Operating Agreement between the Board and Air Products Blue Energy, LLC describes the state properties subject to the sequestration contained in the Agreement as constituting approximately 122,455 acres including a tract comprised of 33,146 acres located in the Canal Bank area of the Maurepas Swamp Wildlife Management Area, a tract comprised of 57,100 acres consisting of Lake Maurepas and a tract comprised of 32,209 acres consisting of Sabine Lake; and

Lake Maurepas is a 15,000-plus acre estuarine system that receives freshwater from Blind River, the Amite River, the Tickfaw River and the Natalbany River and is home to bass, crappie, catfish and bream; resident birds, including wood ducks, black-bellied whistling ducks, egrets, and herons which can be found in the area year-round; and over 40 miles of shoreline, lined with cypress trees and vegetation.

The adjacent Maurepas Swamp Wildlife Management Area is home to bald eagles and osprey and numerous species of neotropical migrant birds who use this coastal forest habitat during fall and spring migrations.

Lake Maurepas is an ecologically important estuarine system supporting the life cycle of several important estuary-dependent species including fish, shrimp and crab, which is vitally important to wildlife and people and adequate mitigation of damage to this ecology cannot be guaranteed.

The White House Council on Environmental Quality guidance requires close monitoring and enforcement of existing regulations and the development of new tools to monitor and improve safety of CCUS projects while also reducing the number of incidents that result in leakage of carbon dioxide.

Residents living and working around Lake Maurepas have been vocal advocates against the speed in which this project is advancing concerned that regulators are not giving ample consideration to protecting area residents from the dangers of possible $CO_2$ leakage impacting aquifers with catastrophic failures risking human life; the potential for faults in the geological formations below the Lake; disruption to wildlife and fisheries from seismic testing; fears of over-dredging of the lake's water bottoms for deepening transport channels and subsidence from previous drilling.

# APPENDIX B

# LWF COMMENTS ON STATE PRIMACY

**LOUISIANA WILDLIFE FEDERATION**
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July 29, 2023

U.S. Environmental Protection Agency Region 6,
Lisa Pham, Groundwater/UIC Section
Mail code: WDDG
1201 Elm Street, Suite 500
Dallas, TX 75270-2102

RE: State of Louisiana Class VI USEPA Primacy Application
Docket ID No. EPA-HQ-OW-2023-0073,
Public Comment Letter

Dear Ms. Pham:

On April 21, 2021, the State of Louisiana Department of Natural Resources Office of Conservation Injection and Mining Division filed a Class VI United States Environmental Protection Agency (USEPA) Primacy Application to add Class VI injection wells to the State's existing Underground Injection Control Program (UIC) to be administered by the State. The Application was subsequently updated on September 17, 2021. On April 27, 2023, the USEPA Administrator signed a proposed rule to approve the State of Louisiana's request to have primary enforcement responsibility (primacy) for UIC Class VI wells within the State, pending public comment.

This letter will serve as the Louisiana Wildlife Federation's (LWF) public comments to Louisiana's primacy application.

According to the USEPA, Louisiana is the third state to request primacy for UIC Class VI wells and after its review of the application, the USEPA is proposing to approve Louisiana's application, subject to public comment, based on the USEPA's determination that Louisiana's application meets all applicable requirements for approval. The USEPA's final approval will allow Louisiana to be the permitting authority for Class VI UIC wells with USEPA oversight.

LWF embraces the science that industrial plants burning fossil fuels is a top source of the carbon pollution driving climate change and that cutting these emissions can improve air quality and help fight climate change while the State transitions to cleaner sources of energy. We acknowledge that carbon capture utilization and storage projects and the expansion of blue hydrogen production for the purpose of reducing $CO_2$ atmospheric emissions may advance the federal and state goals of reducing carbon emissions in the short term as the world transitions to more renewable energy production.

With certain qualifications related to the State's ability to deploy an effective expanded UIC program to administer, implement, and enforce the federal Safe Drinking Water Act (SDWA) as it relates to Class VI injection wells, then, LWF supports the State of Louisiana's application for primacy.

First and foremost, LWF shares the belief that a state's UIC program must meet strict safeguards when considering a Class VI well permit application to ensure protection of the public's drinking water including requiring applicants have:

- Operating requirements to ensure the injection activity will not endanger USDWs or human health.
- Financial assurance mechanisms sufficient to cover the cost for all phases of the geologic sequestration project including the post injection site care period and until site closure has been approved by the permitting authority.
- Emergency and remedial response plans.
- Reporting of all testing and monitoring results to the permitting authority to ensure the well is operating in compliance with all permit and regulatory requirements.

To the extent the USEPA is evaluating the State of Louisiana's application with these priorities in mind, LWF supports the primacy request of the State.

We further affirm that carbon capture, utilization and storage (CCUS) may be an effective process when properly regulated and monitored for potential adverse impacts on the public and its drinking water. However, Louisiana's past experience with industrial development, including abandoned oil and gas wells and coastal damage from energy development and pipeline activities, gives rise to concerns that the State may not adequately administer and enforce the UIC program's laws and regulations, particularly as they relate to holding applicants accountable for the impact of their drilling.

To that end we outline below LWF's main concerns:

<u>Environmental Justice</u>

Given Louisiana's long history of adverse consequences associated with the proliferation of industrial processes and oil and gas exploration, LWF raises concerns that the State could repeat its past mistakes if it is too anxious to advance the next energy industry sector without due diligence in evaluating permit applicants in a rigorous and intentional manner.

Certain communities in Louisiana have asserted disproportionate adverse environmental and public health consequences as the result of the proximity and concentration of industrial development. We have documented cases of elevated cancer diagnoses among minority, underserved and low-income populations living in proximity to industrial plants.

And if we learned anything from the effects of generations of oil and gas exploration it is that there is an environmental price to pay. In addition to the increased strength and regularity of hurricanes hitting Louisiana's coast and catastrophic oil spills, thousands of miles of man-made canals for pipelines have caused significant subsidence contributing to Louisiana's coastal land loss problem. The billions in investments already made by the State to correct years of damage have resulted in only incremental progress. The cost to restore and reduce the risk of future erosion will cost $50 billion in consistent investment over the next 50 years, according to Louisiana's 2023 Comprehensive Master Plan for a Sustainable Coast. Additionally, our state continues to grapple with over 4,600 documented abandoned and unplugged oil and gas wells threatening the health and safety of the surrounding community from methane emissions. The

effort to compel industry to plug unused wells has been a hard-fought battle that has resulted in only a fraction of those wells plugged and many being abandoned. It will take increased enforcement to identify the companies responsible and millions in investment for that to become a reality.

This history gives rise to concerns about the State's commitment to adequately monitor and hold permit holders accountable for the responsible management, maintenance and disposition of these new carbon dioxide pipelines and wells. We are hopeful the State has learned from its past mistakes and will be more diligent in enforcing the laws and rules its application promises to uphold, however, we urge the USEPA to remain as diligent in monitoring the State's implementation and execution of the Class VI UIC program.

Siting

Where Class VI wells are sited should be a key consideration by both the USEPA and the State of Louisiana.

According to the report issued by Greg Upton, LSU Center for Energy Studies, Brian Snyder, LSU Department of Environmental Sciences and John Flake, LSU Cain Department of Chemical Engineering entitled: What is Carbon Capture, Utilization and Storage (CCUS)?, the surface risks of CCUS are most likely to occur during the transport stage. Since $CO_2$ is transported at high pressure, they recommend that pipelines need to be sited and constructed and monitored carefully. In light of the substantial land loss Louisiana has experienced over the past century from oil and gas exploration and canals that were never filled in, LWF is concerned about the addition of more pipeline canals needed to facilitate the transport of the $CO_2$. LWF asserts that the transport of high-pressure $CO_2$ is as much of a concern as the injection into potentially vulnerable rock.

When wells are proposed to be sited near populous areas or on public lands utilized by the public, then rigorous environmental assessments as well as public input should be critical considerations, beyond simply geological adequacy.

Public Input

Using the State of Louisiana's experience with permitting a Class V well by AIR PRODUCTS BLUE ENERGY, LLC, the USEPA should consider the public outcry relative to the proposed use of Lake Maurepas and the Maurepas WMA by Air Products to sequester CO2. The public input process, while perhaps consistent with the EPA's process, did little to engender confidence in state agencies by those most impacted. If the State is to offer state lands as sites for Class VI wells, LWF would argue the public participation process should involve additional steps to augment the minimum required public participation process. For the public to have confidence in the State's ability to properly regulate an industry, they need to be engaged.

The public often gets its information on a new regulation from the media, not from government and only after significant media coverage. We encourage public regulators to engage the media to help disseminate information about new rules and regulations and new permit applications so they can be prepared to give informed comments.

Relating to recent Class V well approval as an example, the public has at times found itself most involved after the decision has been made. In the case of the Air Products Blue Hydrogen Class V permit application there is certainly a perception that the outcome is pre-determined. Public notification of meetings and opportunities to comment on permit applications should be preceded by education about projects, their purpose, the timeline, the technology to be deployed, the benefits of the activity and how risks are being mitigated.

While science might support the safety and efficacy of CCUS technology as a solution to reducing carbon emissions it does not mean the public understands the benefit or has had an opportunity to learn the facts. And while the State or federal government may not have the legal obligation to educate the public, if it seeks to use CCUS as a means reaching its climate goals, which it views as a public protection action, it should do a better job of informing the public. Failure to do so is when the public loses faith in its government, no matter how well-intentioned.

We encourage EPA to require the State of Louisiana, should it be granted primacy, to:

- Give the public expanded opportunity to comment.
- Convene focus groups to solicit feedback on the impact to communities.
- Design public meetings that aim for dialogue rather than debate so that mutual learning can occur.
- Utilize social media, broadcast media and visible public signage relative to a project siting.

Public engagement and the use of relevant and quality information can bridge government with the people it represents.

There is more confidence and less conflict when the public and industry co-exist. We point out that the public's perception of the dangers inherent in drilling a carbon dioxide injection well led to several pieces of legislation filed during the 2023 Regular Legislative Session to prohibit this kind of drilling. The hearings elicited passionate arguments from the public, the State and industry. The prevailing legislation, HB 571, outlines several steps that the State will have to follow to ensure adequate public input is considered by the State when permitting a Class VI injection well and requirements for well operators at the conclusion of a well's use. This legislation served as a compromise of sorts between the public's suspicions and the State's desire to advance a new solution to the State's carbon problem. But it was state legislation that was required *after* the State's USEPA application. Without this public outcry, one wonders if the State would have been so responsive in establishing additional requirements.

We cannot emphasize enough that the State must consider local input and employ rigorous cost-benefit analyses to ensure the State's assets are protected from irreversible ecological damage and public access to healthy recreational opportunities are preserved for residents and future generations to enjoy. To quote the federal government's own recommendation, "the public can bring a fresh perspective or greater insight into the outcomes of the regulations." (How Members of the Public Can Contribute to the Regulatory Process | GSA)

Staffing

Louisiana has struggled to adequately fund state enforcement agencies who are responsible for ensuring state and federal rules, regulations and laws governing the safety of the public are enforced. In an interview following his tenure as the Secretary of the Department of Environmental Quality, Secretary Chuck Carr Brown saw a steep drop in state funding and staff. According to Secretary Brown, the DEQ had 1,013 employees in 2008, in 2016 they had 687. A 2019 audit suggested the reduced staff led the agency to fall behind on enforcing violations.

Similarly, the Office of Conservation, the agency requesting primacy to enforce USEPA's Class VI injection well program has fewer positions authorized for the fiscal year beginning July 1, 2023 than it did in 2008 (192 compared to 179). While the number of authorized positions has increased over the past five years, it gives concern to LWF that the agency has the workforce and resources necessary to responsibly enforce a new program. We are hopeful that the Legislature's approval of seven (7) new employees and $847,290 in new funding for the Class VI UIC program during the just ended legislative session will be adequate to successfully operate a robust permitting office, however, we remain concerned that the State is prepared to take on this highly technical industry for the long term and that it will be able to attract and retain the expertise needed to adequately provide rigorous analysis of applications. Further, the technological resources necessary to monitor well activity is going to be expensive and we question the State's commitment to ensuring the Office of Conservation is funded adequately to keep pace with evolving technologies.

Application Transparency

LWF would like to know if the USEPA requires the State of Louisiana to publicly post all applicants for Class VI wells including the operator, location of the well, capacity of the proposed well and where the carbon dioxide will be transported from for sequestration as part of its evaluation of a permit application.

Evaluating Louisiana's Performance

LWF would like to see the USEPA establish clear metrics for evaluating the State of Louisiana's performance in permitting Class VI wells. As Louisiana would be joining only two other states in leading the permitting of Class VI wells, it is unclear how the USEPA will regulate and monitor how states execute their federally delegated responsibilities. We appreciate the proposition that states can streamline permitting, however, we caution that faster is not always better when it comes to permitting the transport and storage of a highly volatile product such as carbon dioxide. Further, it has been LWF's observation that regulatory agencies in Louisiana have maintained close relationships with the industries they regulate creating mistrust by the public that state rules and regulations will be objectively enforced. While the current leadership at the Louisiana Department of Natural Resources and the Office of Conservation have years of public service, this cannot be assumed to be the case with future gubernatorial appointments. Given these concerns, LWF recommends the USEPA consider granting Louisiana limited primacy dependent upon the State meeting specific performance metrics periodically reviewed by USEPA for at least the first five years of primacy. We further recommend the USEPA create or require the State to have a transparent process for the public to report bad actors and questionable activities directly to the USEPA for review and investigation.

Conclusion

While Louisiana has decades of experience with injecting carbon dioxide into the earth for enhanced oil recovery, we have no experience permitting this technology at the scale that is about to occur. How do we ensure that injection wells do not leave behind the damage that onshore and offshore oil and gas drilling did at the turn of the century and some industrial plants continue to do today? How do we ensure our communities are protected? Our concern is that while the State can assert its commitment to strong enforcement and stricter rules, will it work independently to ensure those companies that are permitted to drill Class VI wells take responsibility for all permitted activities? When the State through the Secretary of the Department of Natural Resources, the Governor and the Legislature all cite Class VI wells as the energy future, the commitments of today must be upheld by the government of tomorrow.

Thank you for the opportunity to comment on this proposed rule. We stand ready to assist the State of Louisiana should it be granted primacy. We believe that the State shares our concerns for the protection of the public and we will leverage our membership and our voice to ensure the State's natural assets are preserved and industry is held accountable for its actions.

Sincerely,

Rebecca Triche
Executive Director