

WYOMING UNDERGROUND INJECTION CONTROL CLASS VI PERMITTING COLLABORATION FOR FEDERAL AND INTERSTATE LANDS

White House Council on Environmental Quality
Carbon Capture, Utilization, and Storage Permitting Task Force

Reston, Virginia

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Groundwater Section-Underground Injection Control Program

Overview

- EPA UIC Program and State Primacy
- Wyoming's Underground Injection Control Program
- Wyoming's UIC Class VI Permitting Process
- Pore Space Considerations in Wyoming
 - State and Federal Collaboration
 - Interstate Collaboration



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EPA UIC Program and State Primacy

- Section 1421 of the Safe Drinking Water Act (SDWA) directs US EPA to develop UIC program requirements that protect underground sources of drinking water
- Primacy, refers to a state, territory, or tribal responsibility associated with implementing US EPA-approved UIC programs
- Currently 34 states have primacy over certain classes of wells of the UIC program
- Wyoming received primacy of UIC Class I through V wells in 1983
- Primacy of UIC Class VI wells was issued in September 2020
- Second state to receive primacy of Class VI wells



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Wyoming's Underground Injection Control Program



- Wyoming Department of Environmental Quality
 - Water Quality Division
 - Class I – hazardous and non-hazardous wastes into deep, isolated rock formations
 - Class V – inject non-hazardous fluids underground; dispose of wastes into or above an Underground Source of Drinking Water
 - Class VI – inject carbon dioxide for long-term storage or geologic sequestration
 - Land Quality Division
 - Class III – inject fluids to dissolve and extract minerals
- Wyoming Oil and Gas Conservation Commission
 - Class II – inject fluids associated with oil and natural gas production



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Wyoming's UIC Class VI Permitting Process

- Informational Meeting
- Pre-application Meeting
- Application
- Completeness/Technical Adequacy Review
- Public Notice
- Permit to Construct
- Well Construction and Pre-injection Testing
- Permit Modification Application
- Completeness/Technical Adequacy Review
- Public Notice
- Unitization Order (if applicable) ←
- Permit - Authorization to Inject

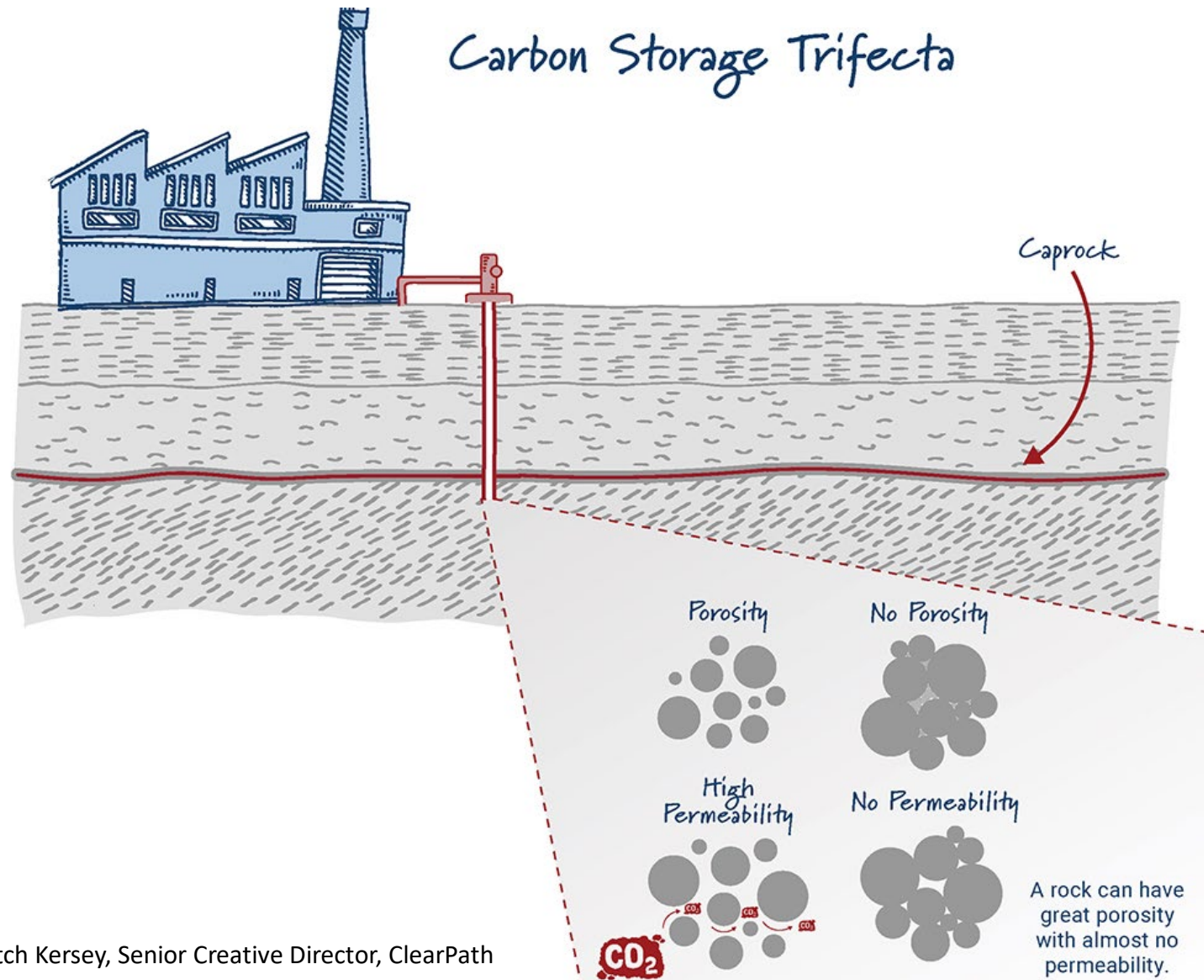


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Pore Space Considerations in Wyoming

- Private Land Ownership
- State Land Ownership
- Federal Land Ownership
- Interstate Pore Space



Mitch Kersey, Senior Creative Director, ClearPath



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Private Land Ownership



- Surface owner owns the pore space
- Assuming the pore space owner has an agreement with the CCUS operator, unitization may not be needed.
- In some cases, the CCUS operator may want to go through unitization to memorialize the agreement.
- Statute prohibits a unitized area from being operated by anyone other than the unit operator; therefore, having this explicit statement of exclusivity from the statute may be beneficial in certain scenarios.
- Written consent of persons who own at least 80% of the pore space storage capacity within the unit area is required for unitization and must follow the unitization process outlined in W.S. § 35-11-314 through 317.



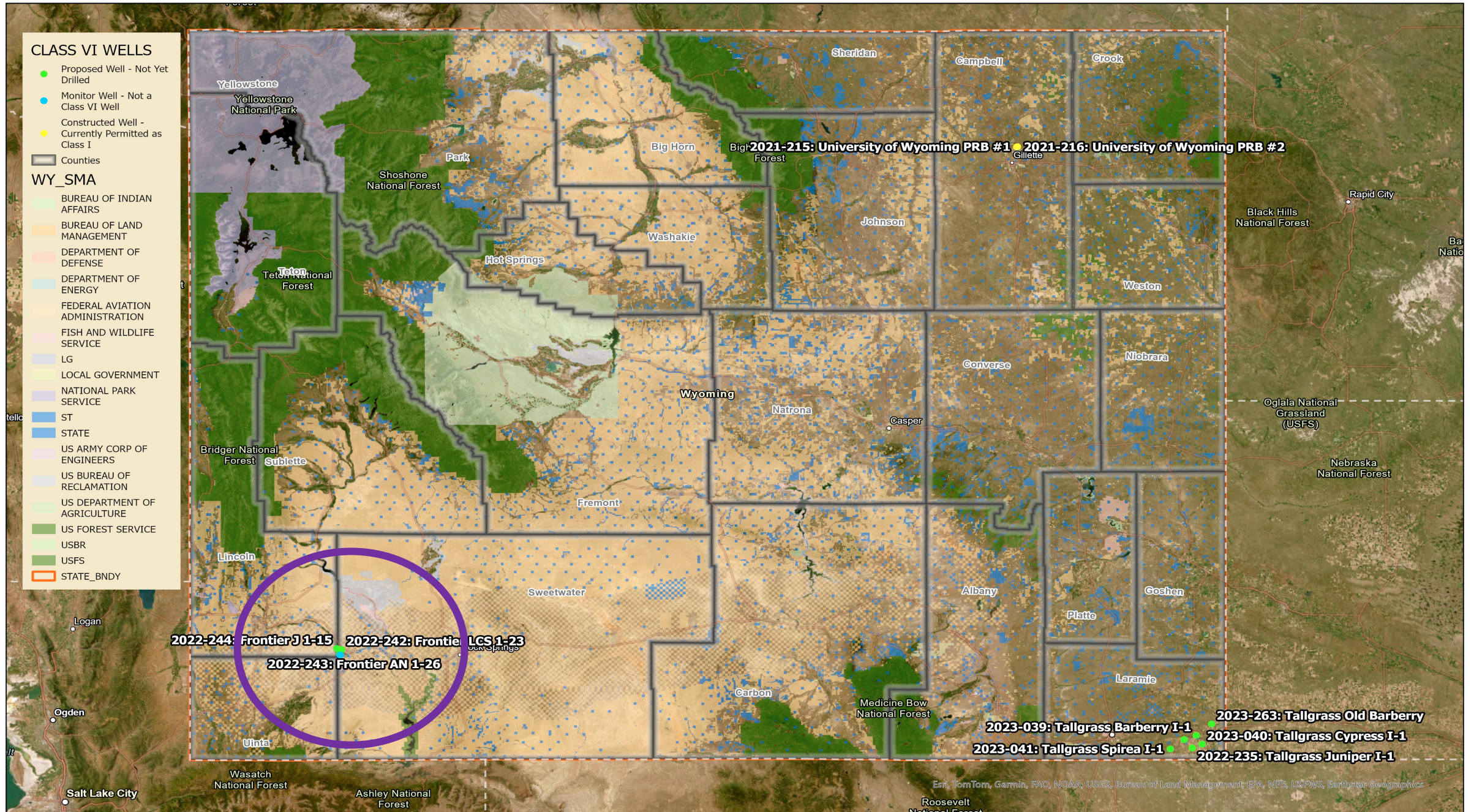
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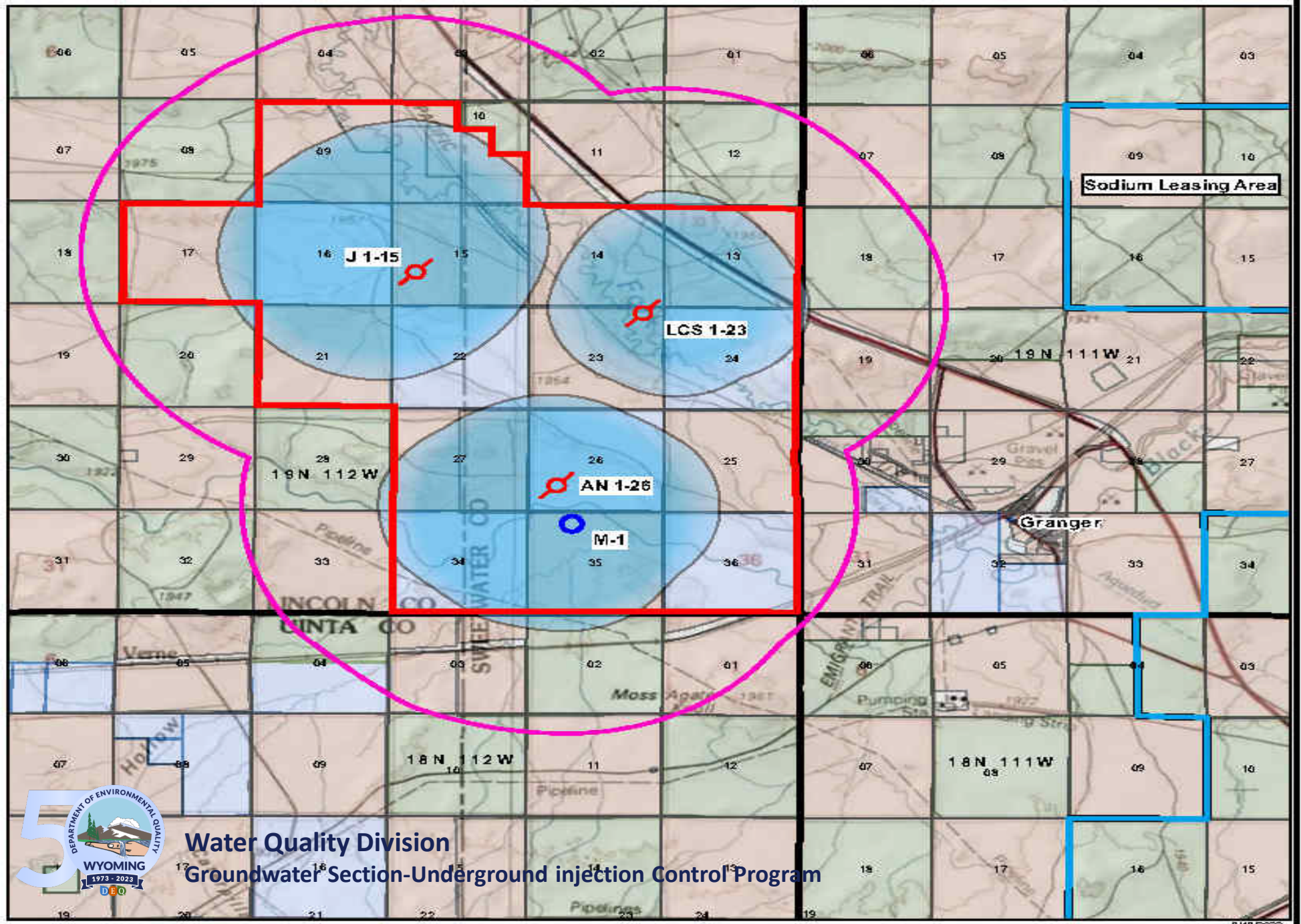
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State Land Ownership

- Pore space ownership types do not matter for unitization.
- Additional processes may be necessary through State or federal entities such as leasing or right-of-way.
- State Land lease agreements are administered through the Office of State Lands and Investments.
- Similar process as private land ownership applies.







PROJECT GO
SWEETWATER CARBON STORAGE HUB
CLASS VI PERMIT MAP

SOUTHWEST WYOMING
(SWEETWATER, UINTA & NGOLY COUNTIES)

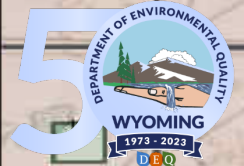
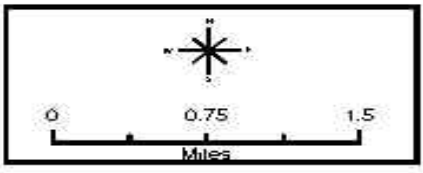


SW Carbon Hub
Proposed Injection Wells

-  Injection
-  Monitor
-  Sweetwater Hub
-  Sodium Leasing Area

Land Ownership

-  BLM
-  State
-  Private
-  CO2 Plume
-  1 mile AoR



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Federal Lands – Questions

- ✓ Is a Right-of-Way Authorization required prior to applying for a Class VI permit?
- ✓ Is a UIC Class VI permit required prior to applying for a Right-of-Way Authorization?
- ✓ What is the process for working with state/federal/private land ownership for a project?
- ✓ What does unitization look like for state/fee/federal/private land ownership?



State and Federal Collaboration

- *National Policy for the Right-of-Way Authorizations Necessary for Site Characterization, Capture, Transportation, Injection, and Permanent Geologic Sequestration of Carbon Dioxide in Connection with Carbon Sequestration Projects* (IM 2022-041)
- Memorandum of Understanding (MOU)
 - To describe the respective responsibilities, jurisdictional authority, and expertise of each of the Parties in the planning process.
- The MOU also notates if remediation of an Oil and Gas well is necessary for an existing or plugged and abandoned well that is currently or previously permitted by the BLM, the Class VI permit applicant shall come to agreement with the BLM regarding the wellbore.
- Guidance on the MOU is being drafted by the Interstate Oil & Gas Compact Commission using Wyoming's proposed approach.



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State and Federal Collaboration, cont.

WDEQ/WQD Roles/Responsibilities	BLM Roles/Responsibilities
Inform BLM when a UIC Class VI application is made. (Has been conducted over the years under the UIC Class I program).	Inform WDEQ when a right-of-way application is made for a UIC Class VI well.
Request information to verify if the project is located on federally owned land or not.	Inform the WDEQ of any other BLM-approved activities in the project area that may affect the Class VI permitting process.
Request information on wells associated with federal mineral interests that are active in the Area of Review and Plugged and Abandoned well information.	Provide information as to the location and presence of mineral lease in the Area of review.
Establish and hold financial assurance for the project with review and concurrence from BLM and other conditions.	Assist WDEQ in determining financial amounts sufficient to cover surface reclamation needs and other conditions.
Notify BLM of UIC Class VI permit transfer applicants.	Inform WDEQ of right-of-way reassignments for a Class VI project.
Work with BLM upon discovery of changes to the Area of Review.	BLM's pore space right-of-way grant will not provide for an exclusive use until a notice to proceed is issued. BLM will not issue a notice to proceed until such time that WDEQ has issued an Authorization to Inject for the project.

State and Federal Collaborations

- US Forest Service issued a proposed rule in November 2023 for *Land Uses; Special Uses; Carbon Capture and Storage Exemption* (36 CFR Part 251).



- Uncertainties remain with other agency landowners and tribal government.



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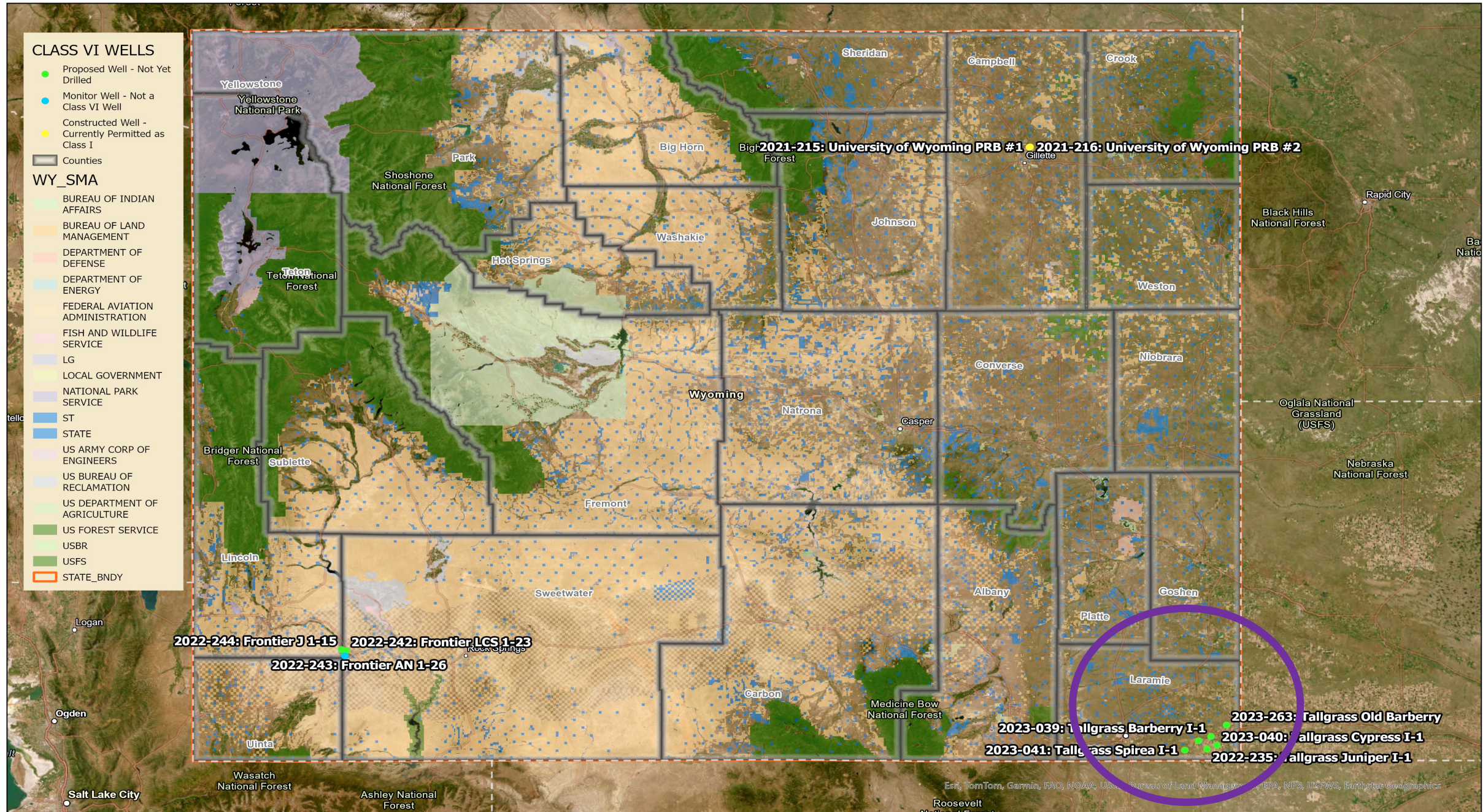
Interstate Collaboration

- Federal UIC Program does not speak to nor have jurisdiction over pore space ownership
- Pore space issues are left up to each state. Depending on location, federal, state, or tribal laws may apply but up to the operator and these entities to work out an agreement
- As EPA jurisdiction under the SDWA is only triggered by “injection” activity, EPA oversight is not implicated by CO₂ plumes that cross boundaries into states without primacy
- Proper notice to the adjacent state (regulators and property owners) is required during the draft permit's Public Notice/Comment period but no collaboration prior to permit issuance



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Topographic Map

Produced by:



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Author: DJR

Date: 11/14/2023

Document Name: 2.1 Topographic Map

Coordinate System: NAD 1983 StatePlane Wyoming East FIPS 4901 Feet
Projection: Transverse Mercator
Datum: North American 1983

**Tallgrass High Plains
Carbon Storage, LLC
Laramie County, WY**

Interstate Collaboration – key topics

Topic	Consideration
Notification	Proper notice to the adjacent state (regulators and property owners) is required during the draft permit's Public Notice/Comment period but no collaboration prior to permit issuance. Timing for notification beyond UIC Public Notice requirements.
Sharing Information	How to share information? When to share information? What information can be shared?
Permit to Construct, Stratigraphic or Science Wells, Authorization to Inject	Notification and information sharing at each or one of these steps?
Property Rights/Pore Space	What is the process if a neighboring state(s) does not have pore space regulations?
Unitization	Wyoming statute requires a unitization order prior to Final Permit issuance. However, what occurs when pore space in a neighboring state(s) is part of the project?
Financial Assurance	Bond requirements for the non-permitting state?
Emergency and Remedial Response	How is subsurface trespass–liability issues addressed for the neighboring state(s)?
Cross-boundary Infrastructure	Monitoring wells
Long-term Stewardship	How to address transfer of liability for interstate projects?



Class VI

Home > Water Quality > Groundwater > Underground Injection Control > Class VI



Contact

Electronic Documents Submittal

Forms and Guidance

GEM Database

Rules and Regulations

Abandoned Mine Land

Administration

Air Quality

Industrial Siting

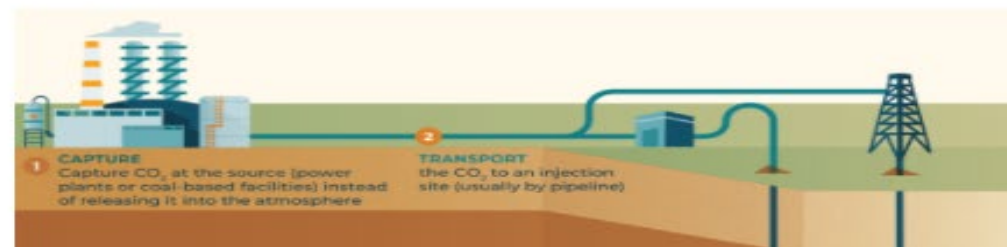
Land Quality

Solid & Hazardous Waste

Water Quality

Class VI Carbon Capture, Utilization & Storage (CCUS) refers to the process in which carbon is captured from industrial processes and either utilized by turning the carbon into a new product or stored by injecting the carbon into a storage site, usually underground in a geologic formation.

[Click here to Sign up for the Class VI listserv](#)



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[Class I](#)

[Class V](#)

[Class VI](#)

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