



SUMMIT CARBON SOLUTIONS

**WDEA Annual Meeting
October 13, 2022**

THE WORLD'S LARGEST INTEGRATED CARBON CAPTURE, TRANSPORTATION, AND STORAGE PROJECT.

Partnered with **32 ethanol plants** across Iowa, Minnesota, Nebraska, North Dakota, and South Dakota.

The capacity to capture and permanently store up to **12 million tons** of carbon dioxide every year.

Opening **new economic opportunities** for ethanol producers, strengthening the agricultural marketplace for farmers, and generating new tax revenues for local communities.



PROJECT OVERVIEW MAP

- Partner Facility
- Sequestration Site
- Pipeline Route





SCS will capture nearly 9M tons of CO₂ per year that would otherwise be emitted into the atmosphere. The project will be able to accommodate a total capacity of 12M+ tons annually.



The CO₂ will be transported via a pipeline network that spans nearly 2,000 miles and will be completed in 2024.

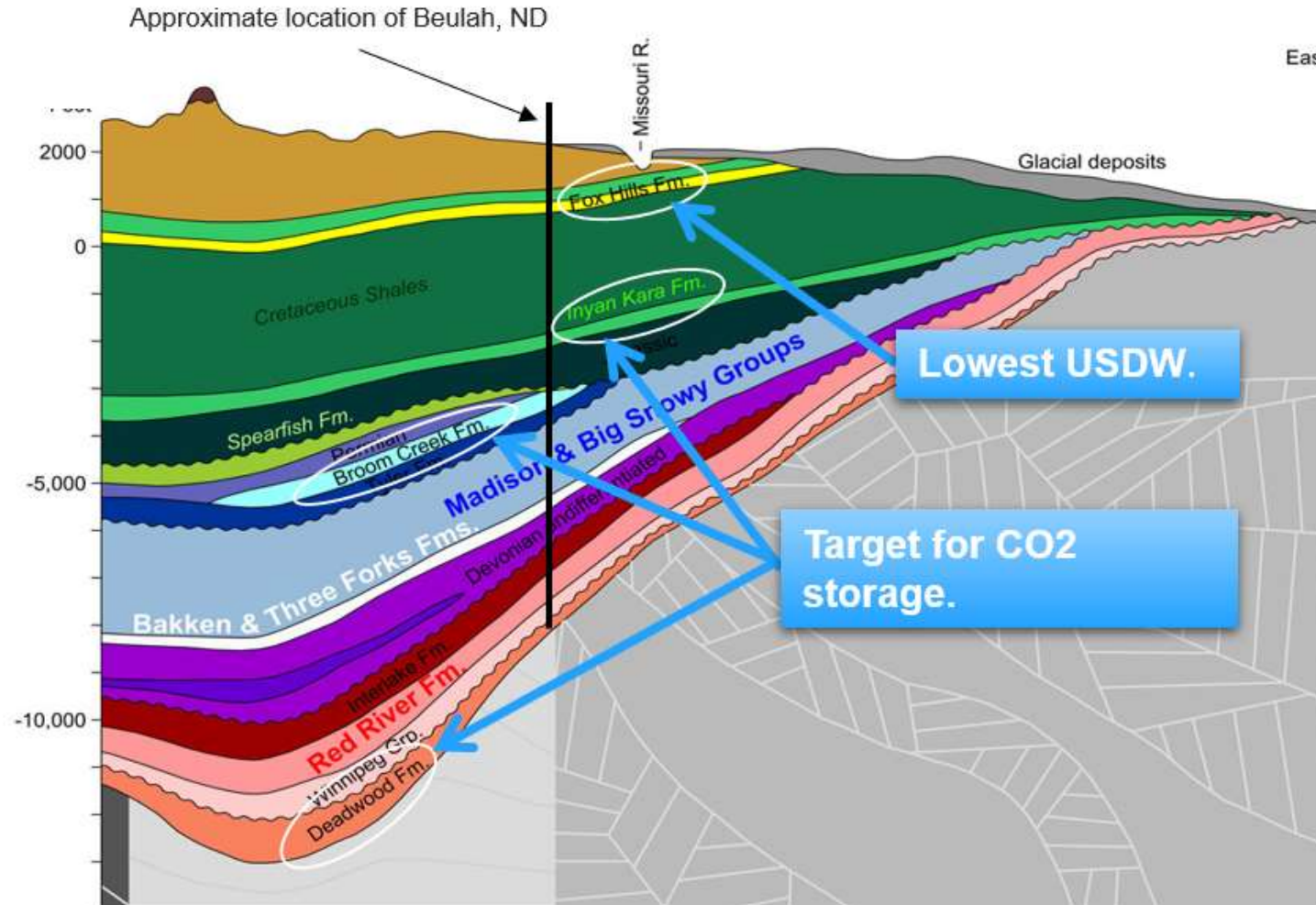


The CO₂ will be permanently and safely stored deep underground in geologic formations in North Dakota.

CO₂ Storage

SUMMIT CARBON SOLUTIONS WILL INJECT SUPERCRITICAL CO₂ DEEP INTO SALINE RESERVOIRS FOR PERMANENT STORAGE

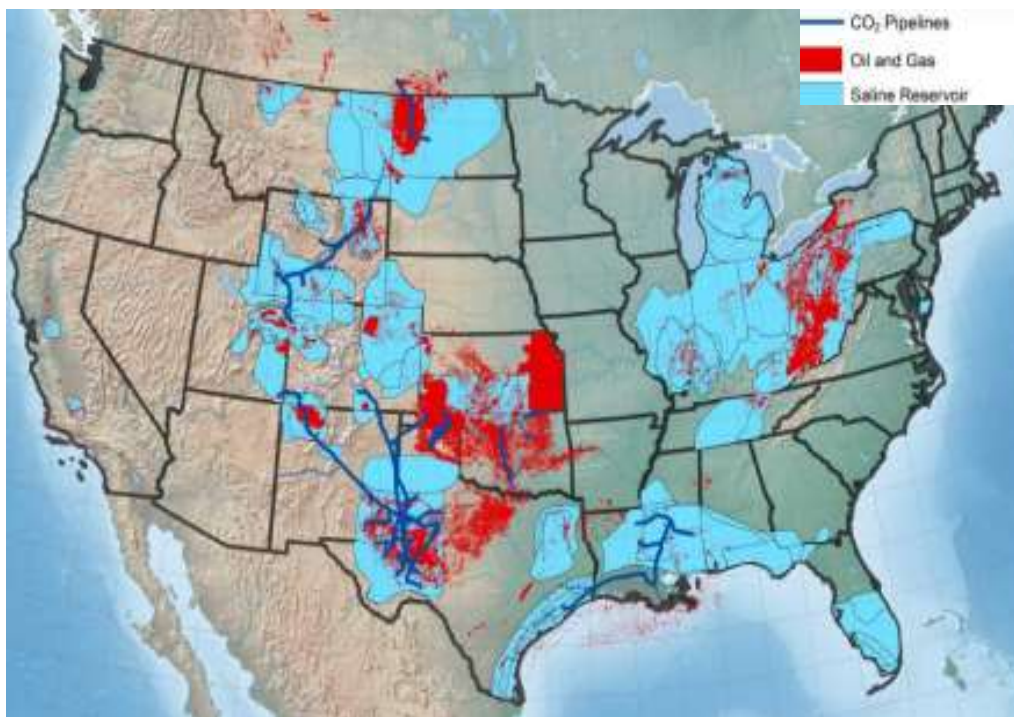
- CO₂ will be injected underneath an **impermeable rock layer** into porous sandstone formations for permanent sequestration
- Pore space is leased from landowners that own the **surface rights**
- Over a 100-year injection period, **SCS will utilize less than 1%** of North Dakota's total sequestration capacity



Carbon Capture, Transportation and Storage is a Safe, Proven Practice

CCS technology has been safely and successfully implemented since the 1970s

CURRENT U.S. CO₂ PIPELINE FOOTPRINT



IMPECCABLE SAFETY RECORD

Zero

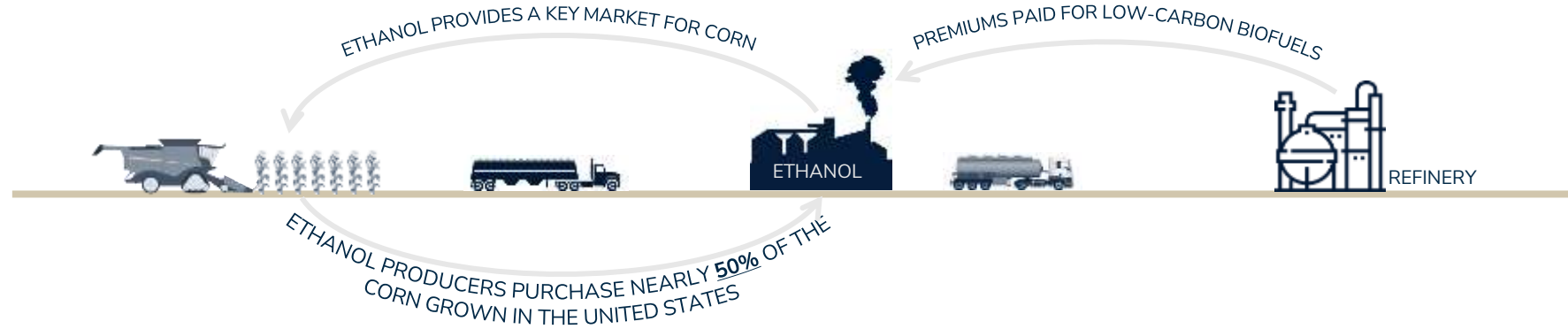
CO₂ pipeline fatalities in the last 20 years¹

- ✓ CO2 Capture installed on 40+ U.S. ethanol facilities
- ✓ Pipeline transportation is the safest method
- ✓ More than 5,000 miles of CO2 pipelines exist in the U.S.
- ✓ SCS will only utilize highly rated and safe materials, including carbon steel
- ✓ We will utilize proven technologies and best industry practices to ensure the project is safe for landowners and the communities

CO₂ is much less of a health and environmental hazard than other pipelines. CO₂ is not combustible (it is used as a fire retardant)

Enhancing the Long-Term Viability of Ethanol & Agriculture

SCS ENABLES ETHANOL TO BE PRODUCED MORE SUSTAINABLY ALLOWING IT TO BETTER COMPETE IN A LOW-CARBON WORLD



 ETHANOL AND AGRICULTURE WORK TOGETHER TO ADD VALUE ACROSS THE SUPPLY CHAIN AS WELL AS CREATE ECONOMIC IMPACT AND JOBS FOR RURAL AMERICA.

	United States	NORTH DAKOTA
Each year, the ethanol industry adds:	\$50B+ of annual GDP contribution	\$640M+ of annual GDP contribution
Each year, the ethanol industry supports:	400,000+ jobs	10,000+ jobs

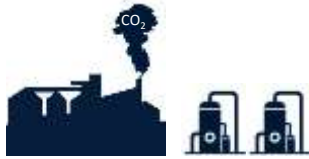

The long-term viability of the ethanol industry is critical for agriculture and rural America.

Economic Impact

SCS WILL DRIVE ECONOMIC GROWTH AND JOB CREATION ACROSS THE MIDWEST AND BEYOND

\$4.5 Billion

capital investment with operations beginning in 2024

	Capture & Compression	Pipeline	TOTAL
PROJECT JOBS	132 - 198	14,067 - 17,193	14,199 - 17,391
OPERATION JOBS	220 - 307	128 - 156	348 - 463
TOTAL JOBS	352 - 505	14,195 - 17,349	14,547 - 17,854

Summit Carbon Solutions North Dakota Economic Benefits

Summit Carbon Solutions will create jobs, generate new tax revenue for local communities, support local suppliers, and strengthen the regional economy

\$898 Million

projected capital investment with operations beginning in 2024¹

PROJECT-WIDE FINDINGS (CONSTRUCTION PHASE 2022-2024)



1,934

Total Average Jobs
Created



\$2.1 billion

Expenditures



\$61.1 million

Direct, Indirect &
Induced Impacts



\$1.157 billion

Total Economic
Output

PROJECT-WIDE FINDINGS (OPERATIONS PHASE STARTING 2025)



\$17.6 million

Annual Expenditures



\$8.3 million

Total Federal, State, Local
Taxes Paid by SCS



150

Total Jobs Supported





SCS IS COMMITTED TO UTILIZING LOCAL UNION AND NON-UNION CONTRACTORS, LOCAL SUPPLIERS AND BUSINESSES TO PROVIDE ONGOING ECONOMIC BENEFITS TO COMMUNITIES ACROSS THE MIDWEST

Source: Ernst & Young

(1) Includes additional unsigned partner facilities. EY study projected capital investment at \$3.7Bn; however, EY only analyzed payments creating an economic transfer for the 31 ethanol facility scope

NORTH DAKOTA

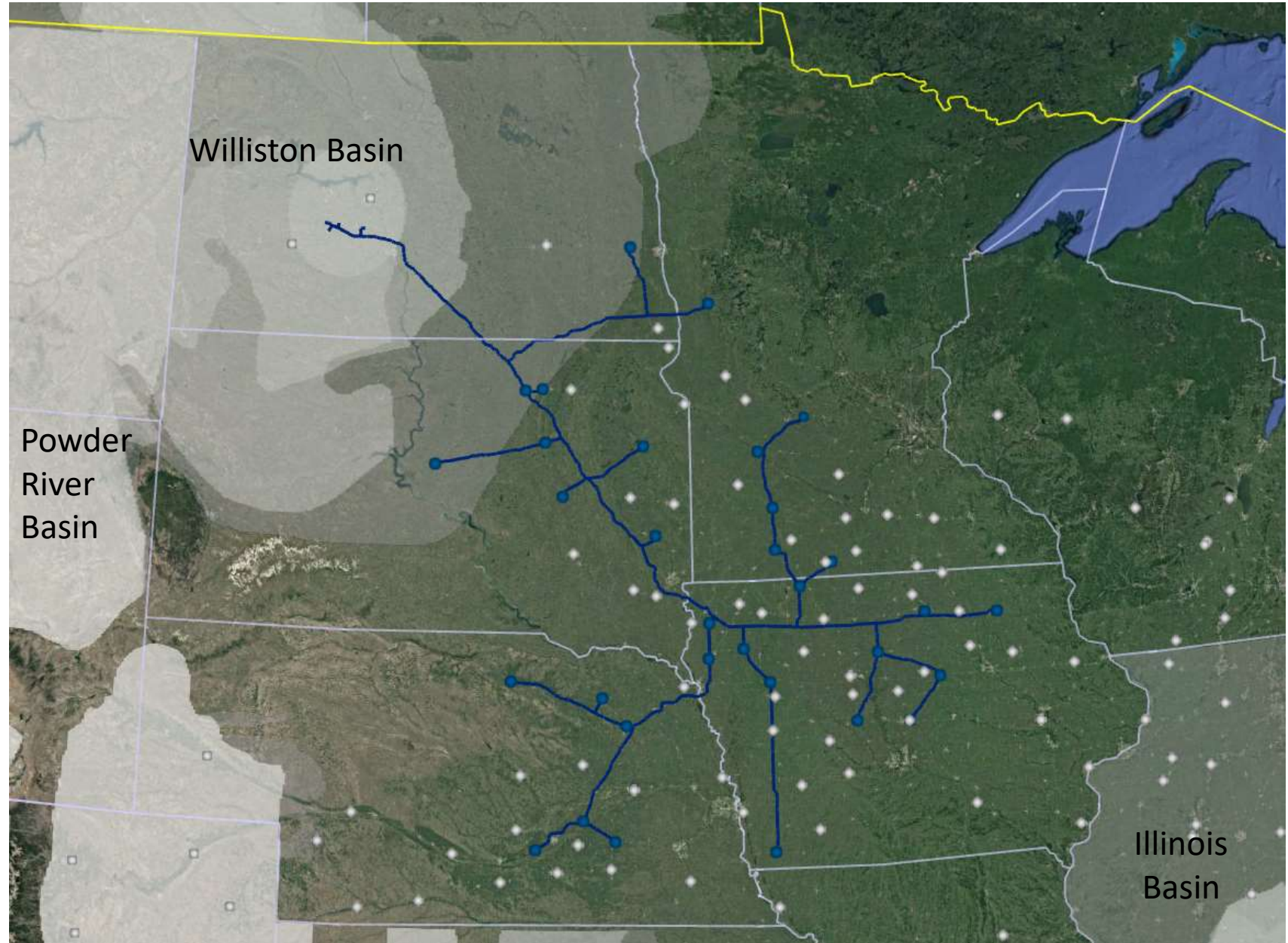


-  Partner Facility
-  Potential CO₂ Sequestration Zones
-  Pipeline Route
-  Other Low-Cost CO₂ Facility

GEOLOGIC RESOURCE

up to **250 billion**

tons of sequestration capacity
in North Dakota



Project Momentum and First Mover Advantage

SCS NUMEROUS SIGNIFICANT RECENT ACCOMPLISHMENTS

- 

> \$1BN in equity commitments








> 10
CO₂ Plant
Partners

- 

Engaged Morgan Stanley and CohnReznick Capital as financial advisors




- 

Partnership with Minnkota Power Cooperative to jointly develop CO2 storage sites




- 

Signed Bushmills Ethanol Plant in Atwater, Minnesota



- 

Significant pore space acquired

> 125,000 acres

- 

Submitted Iowa, Minnesota, and South Dakota pipeline permits





- 

Drilled three stratigraphic wells






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