



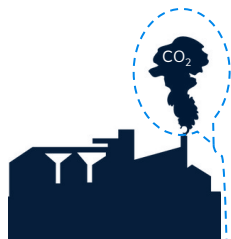
SUMMIT CARBON
SOLUTIONS

Minnesota
March 2022



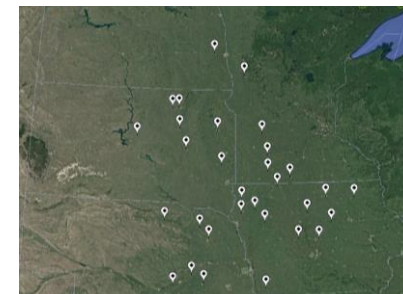
Summit Carbon Solutions Overview

HEADQUARTERED IN AMES, IOWA, SCS IS THE WORLD'S LARGEST INTEGRATED CARBON CAPTURE, TRANSPORTATION, AND STORAGE BUSINESS



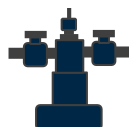
Step 1

SCS has aggregated more than ~8M tons of CO₂ from over 30 facilities in 5 Midwestern states



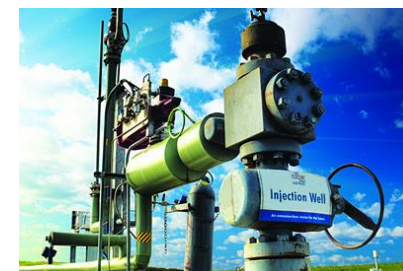
Step 2

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



Step 3

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



SCS' INFRASTRUCTURE WILL BE CAPABLE OF STORING 12M TONS/Y; EQUIVALENT TO TAKING 2.6M CARS OFF THE ROAD

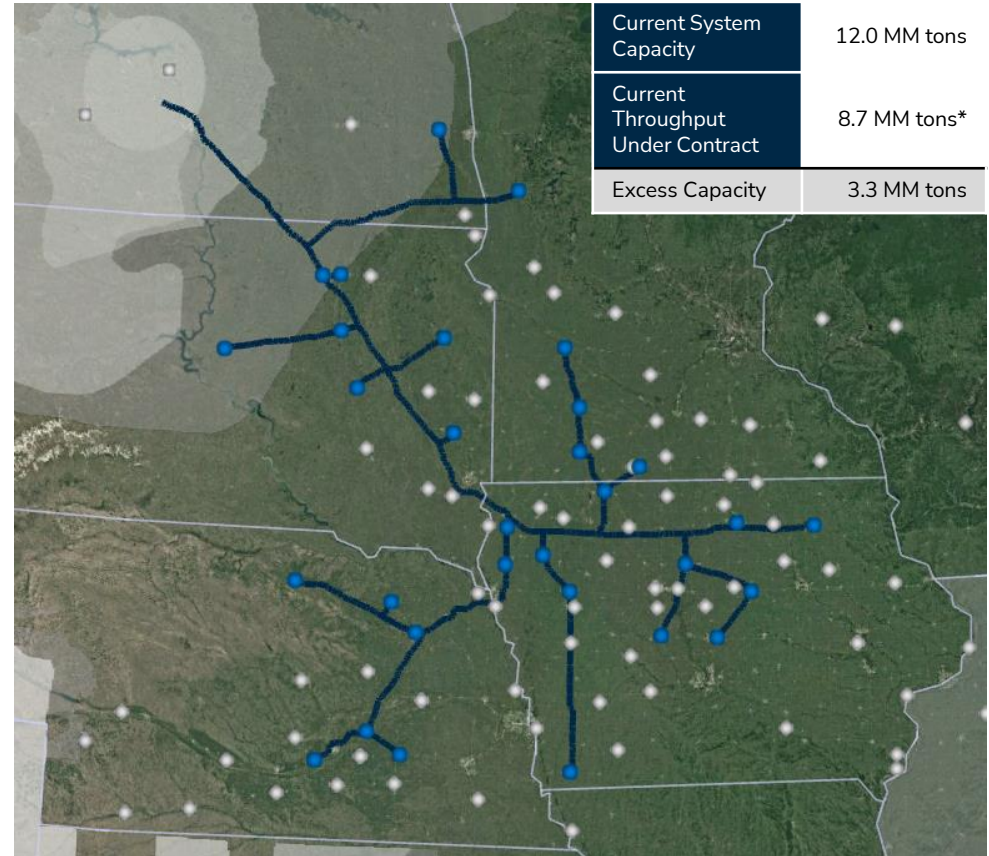
SCS IS ENGINEERING A CO₂ PIPELINE SYSTEM TO ACCOMMODATE GROWTH IN VOLUMES FROM ADDITIONAL PARTNER FACILITIES

-  **World's largest** carbon capture and storage project

-  **Oversized infrastructure** to accommodate more than ~3M additional tons of CO₂ annually

-  **Partnering with already best-in-class biofuel facilities** with direct access to the **lowest cost** inputs

-  Carbon capture and storage further **increases facility profitability and credit worthiness**, supporting **long-term viability** of SCS' partner facilities



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

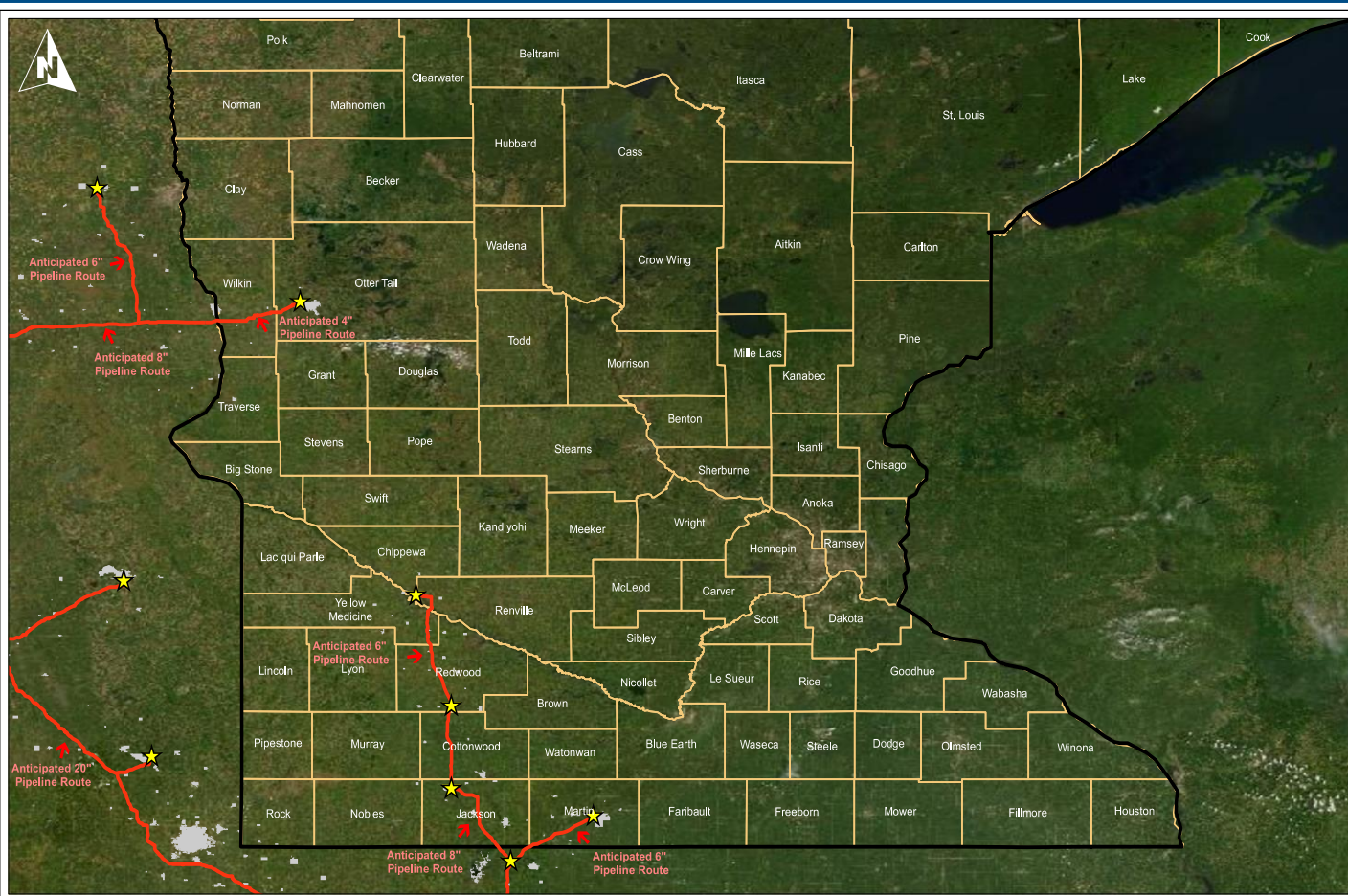
* Assumes all 31 partner facilities are running at nameplate capacity



FIVE CURRENT PARTNERS
LOCATED
IN MINNESOTA



GRANITE FALLS ENERGY
GREEN PLAINS – FAIRMONT
GREEN PLAINS – FERGUS FALLS
HERON LAKE BIOENERGY
HIGHWATER ETHANOL



★ Participating Ethanol Plant
— Route
 State Boundary
 County Boundary
 Highly Populated Areas

**152.91 MILES
OF ANTICIPATED
PIPELINE ROUTES IN MINNESOTA**

*Minnesota Pipeline
Mileage Overview*

COUNTY MULTIPLE	ISSUED BY: CNH
STATE: MINNESOTA	CHECKED BY:
REV. NO.:	REVISION
0	ISSUED FOR REVIEW 10/20/18
PRELIMINARY ROUTE SUBJECT TO CHANGE	
DATE: 11/14/2022	PROJECTION: NAD 83

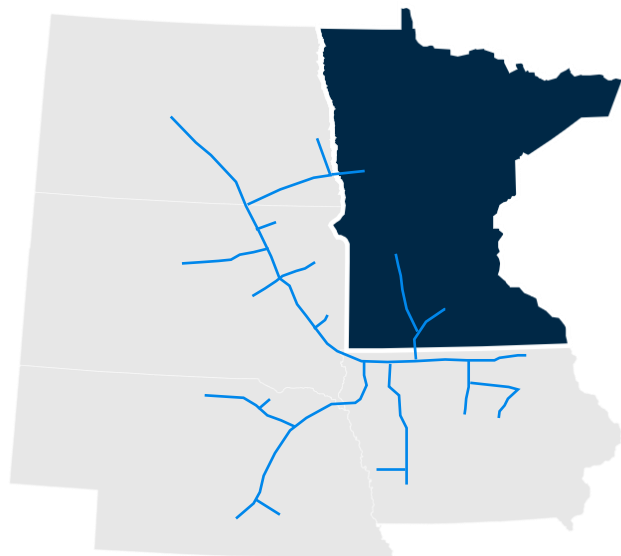
0 5 10 20 30 40
 Miles

DWS: SHEET: 1



Project Location & Partner Facilities

THE MIDWEST CARBON EXPRESS SPANS FIVE STATES INCLUDING MINNESOTA



2,000
miles of newly installed pipeline

12 million
metric tons of CO₂ transportation capacity

2.8 billion
gallons of 2021 nameplate ethanol production capacity connected

31 BIOREFINERY PARTNERS
ACROSS
20 COMPANIES

FIVE CURRENT PARTNERS
LOCATED
IN MINNESOTA

GRANITE FALLS ENERGY
GREEN PLAINS – FAIRMONT
GREEN PLAINS – FERGUS FALLS
HERON LAKE BIOENERGY
HIGHWATER ETHANOL

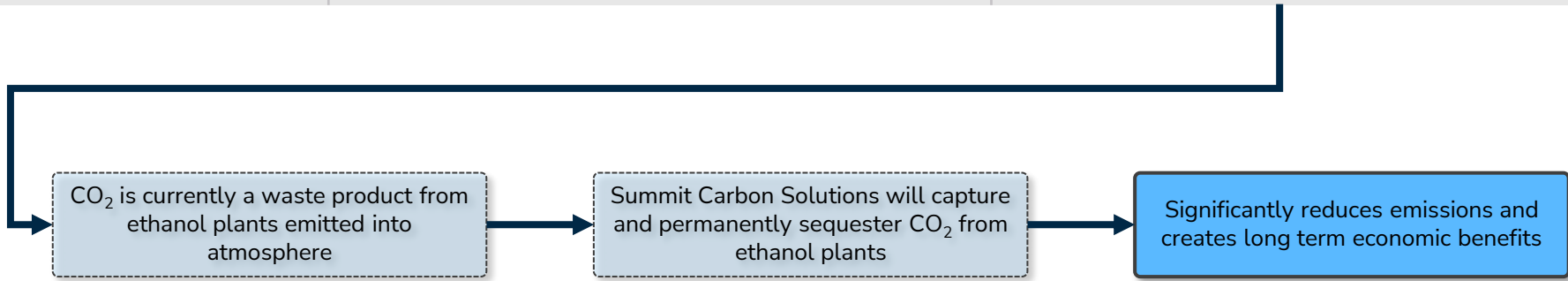
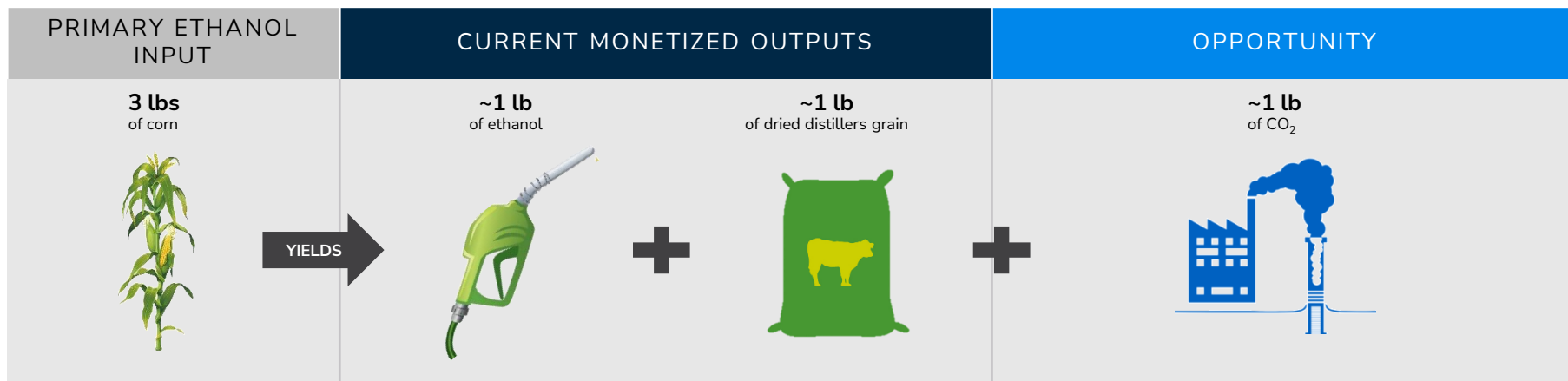
BIOREFINERY PARTNER COMPANIES





Opportunity to Scale a Transformational Carbon Capture Platform

SUMMIT CARBON SOLUTIONS ("SCS") WILL BE THE LARGEST CARBON CAPTURE & STORAGE ("CCS") PLATFORM IN THE WORLD

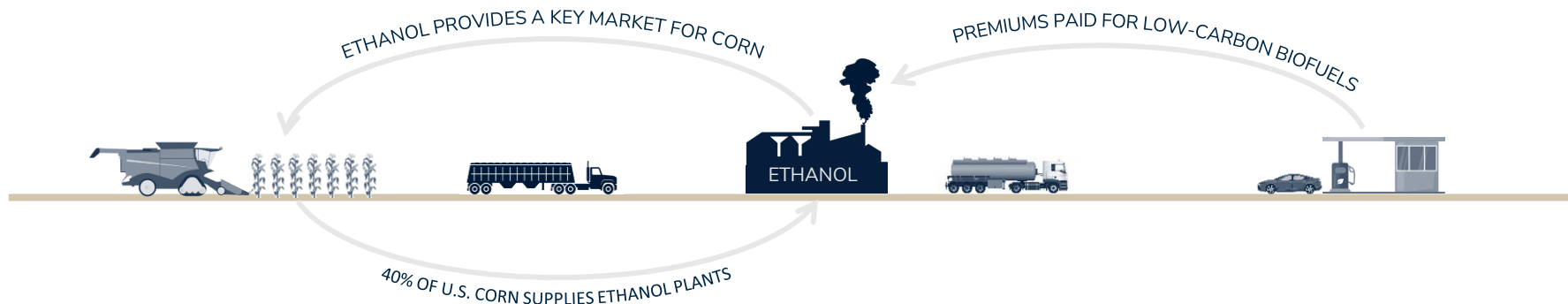


SCS WILL LEAD THE DECARBONIZATION OF THE BIOFUELS INDUSTRY IN THE MIDWEST



Enhancing the Long-Term Profitability 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

MINNESOTA

EACH YEAR, THE ETHANOL INDUSTRY ADDS:

\$43B+
of annual GDP contribution

\$1.5B
of annual GDP contribution

EACH YEAR, THE ETHANOL INDUSTRY SUPPORTS:

340,000
jobs

14,500
jobs

THE LONG-TERM VIABILITY OF THE ETHANOL INDUSTRY IS CRITICAL FOR AGRICULTURE AND RURAL AMERICA.

Summit Carbon Solutions Economic Benefits

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

\$4.5 Billion

capital investment with operations beginning in 2024



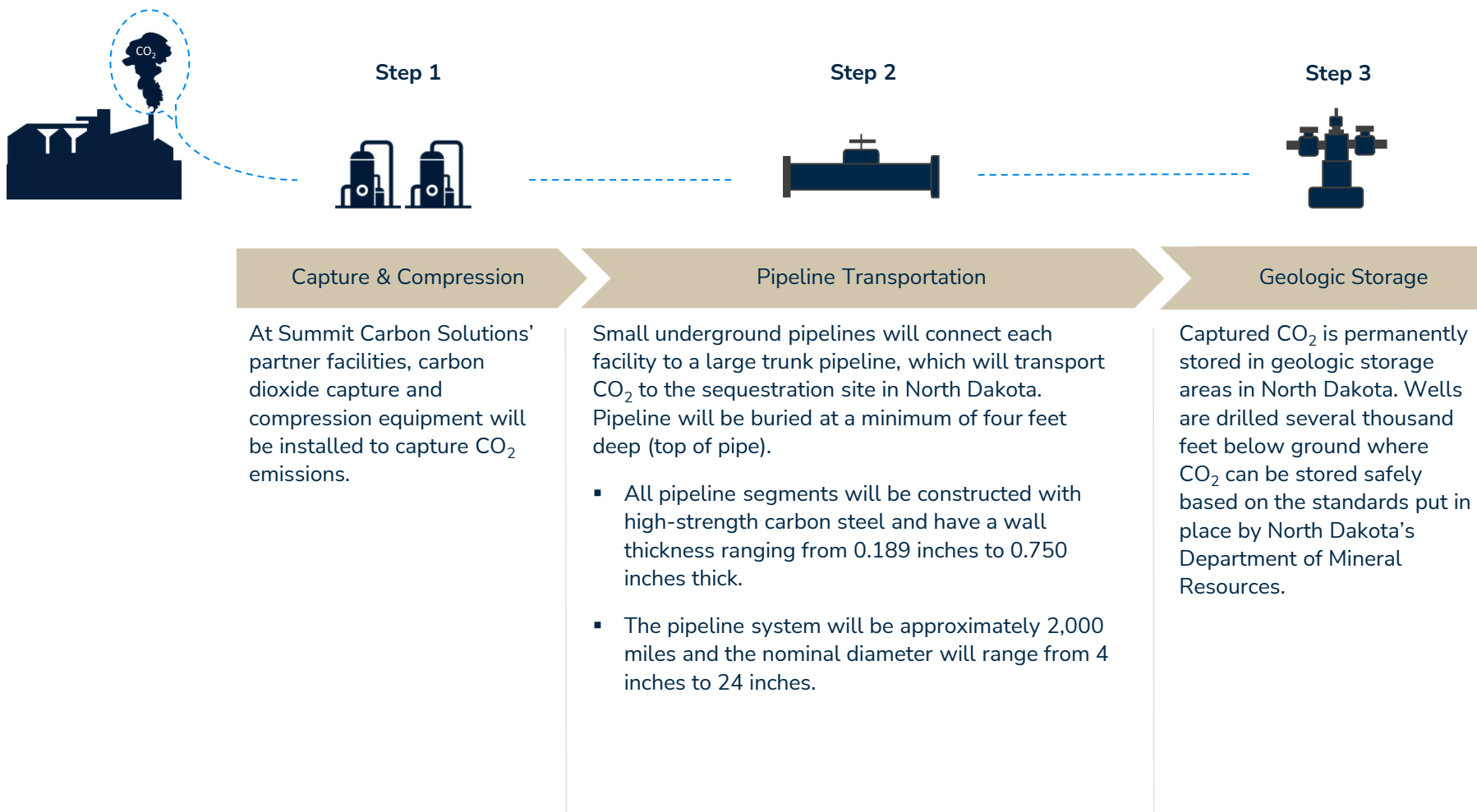
	Capture & Compression	Pipeline	TOTAL
PROJECT JOBS	132 - 198	14,067 - 17,193	14,199 - 17,391
OPERATION JOBS	220 - 307	128 - 156	348 - 463
TOTAL JOBS	352 - 505	14,195 - 17,349	14,547 - 17,854

SUMMIT CARBON SOLUTIONS IS COMMITTED TO UTILIZING LOCAL UNION AND NON-UNION CONTRACTORS, LOCAL SUPPLIERS, AND LOCAL BUSINESSES TO PROVIDE ONGOING ECONOMIC BENEFITS TO LOCAL COMMUNITIES AND THE MIDWEST.



Summit Carbon Solutions: A Commitment to Safety

DEPLOYING EXISTING, PROVEN TECHNOLOGIES TO REDUCE CARBON INTENSITY OF ETHANOL PRODUCTION

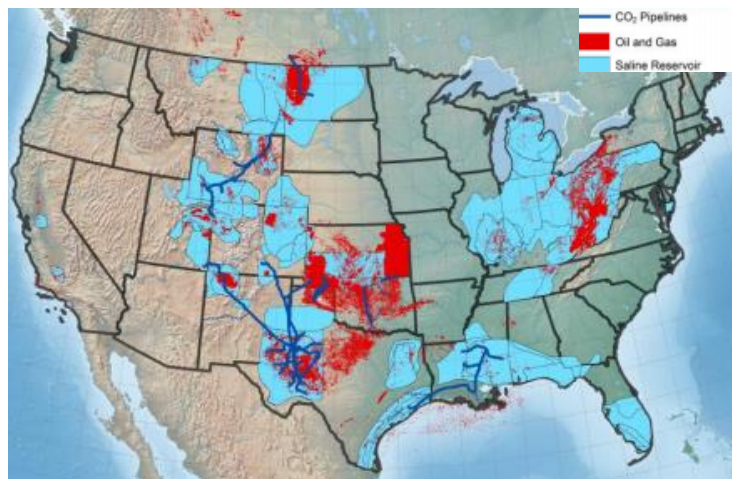




Carbon Capture, Transportation and Storage is a Safe and Proven

CCS TECHNOLOGY HAS BEEN SAFELY AND SUCCESSFULLY IMPLEMENTED SINCE THE 1970S

CURRENT U.S. CO₂ PIPELINE FOOTPRINT



✓ Capture technology has been deployed at 40+ ethanol facilities throughout the U.S.

✓ Pipeline transportation is the safest method

✓ More than 5,000 miles of CO₂ pipelines exist in the U.S.

IMPECCABLE SAFETY RECORD

Zero

CO₂ pipeline fatalities in the last 20 years

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

✓ SCS will only utilize highly rated and safe materials, including carbon steel

✓ We will utilize proven technologies and employ the best industry practices to ensure the project is safe for landowners and the communities where they live, work, and raise families



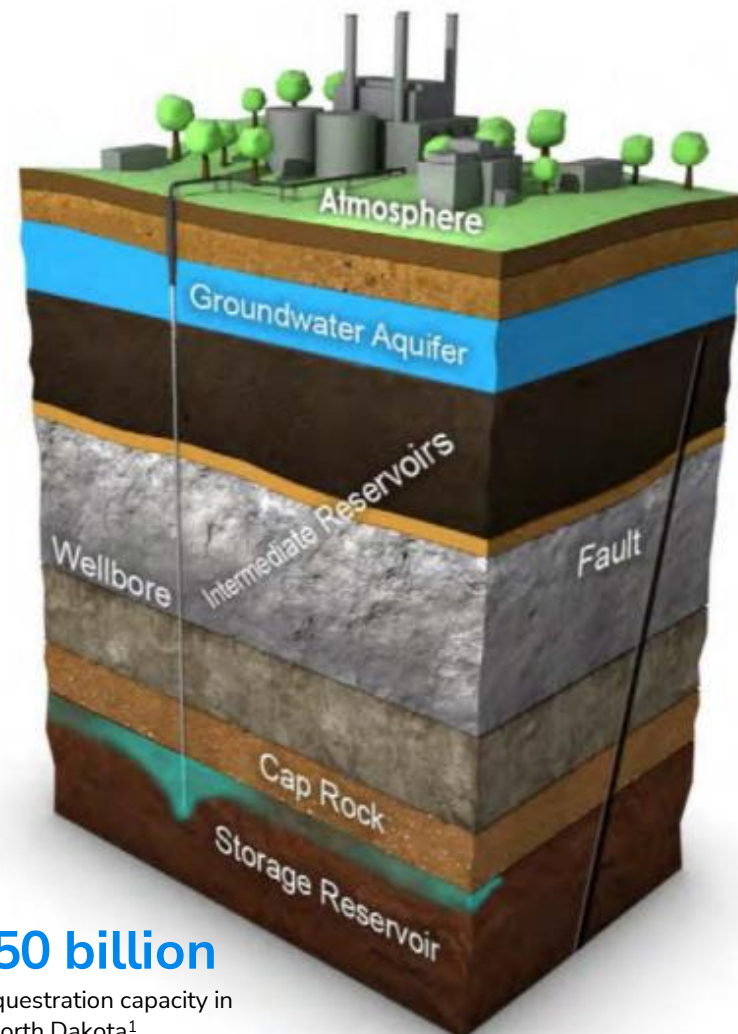
Geologic Sequestration in Saline Reservoirs

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

- At the end of the pipeline, the CO₂ will be injected underneath an impermeable rock layer into saline formations over a mile below the surface for permanent sequestration
- Pore space is leased from landowners that own the surface rights
- Saline storage has been proven by ADM's Decatur, IL facility and is currently being pursued by several other ethanol operators outside of Summit Carbon Solutions' project (e.g. Red Trail Energy, Midwest Ag Energy, REX, Alto Ingredients)
- Over a 100 year injection period, SCS will utilize less than 1% of North Dakota's total sequestration capacity

GEOLOGICAL SEQUESTRATION STEPS

- 1 Site Screening & Selection
- 2 Lease Pore Space
- 3 Permitting & Construction
- 4 Well Testing
- 5 Injection
- 6 Monitoring, Verification & Accounting
- 7 Site Closure



up to **250 billion**
tons of sequestration capacity in
North Dakota¹

1 - Department of Energy

Key Takeaways



\$4.5 billion capital investment in 5 Midwestern states



14,500 – 17,900 estimated jobs created by the project



Up to 12M tons of CO2 is captured and stored every year



Significantly reduces ethanol carbon intensity, leading to a net zero transportation fuel produced in the Midwest



Project utilizes proven, safe technology and equipment



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SOLUTIONS



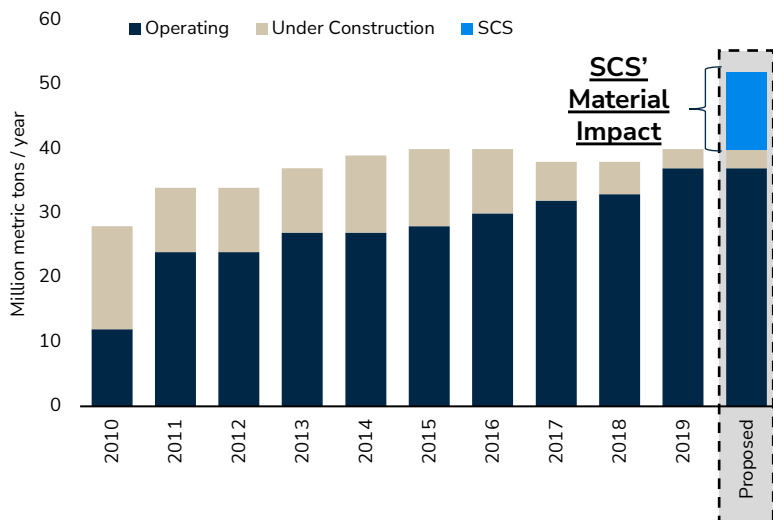
SUMMIT CARBON
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Environmental Impact of Capturing and Storing 12M Tons of CO₂

SCS IS COMMITTED TO A GREEN INITIATIVE THROUGH ITS INVESTMENTS IN CCS AND RENEWABLE ENERGY

GLOBAL CARBON CAPTURE & STORAGE CAPACITY



Largest Global CCS Projects	Location	CCS Capacity
Summit Carbon Solutions	Upper Midwest	12.0
Century Plant	Texas	8.4
Shute Creek Processing	Wyoming	7.0
Gorgon Carbon	Australia	3.7
Great Plains Synfuels	North Dakota	3.0
Petrobras Santos Basin	Brazil	3.0
Petra Nova	Texas	1.4
Quest	Canada	1.0
Coffeyville Gasification	Kansas	1.0
Air Products	Texas	1.0
Boundary Dam	Canada	1.0
Illinois Industrial CCS	Illinois	1.0
Sleipner CO ₂ Storage	Norway	1.0

CCS capacity in million metric tons per year

IMPACT OF 12 MILLION TONS OF CO₂ SEQUESTERED



~ **2.6 million**
Cars Removed from the
Road per Year



~ **1.4 million**
Homes Powered
per Year



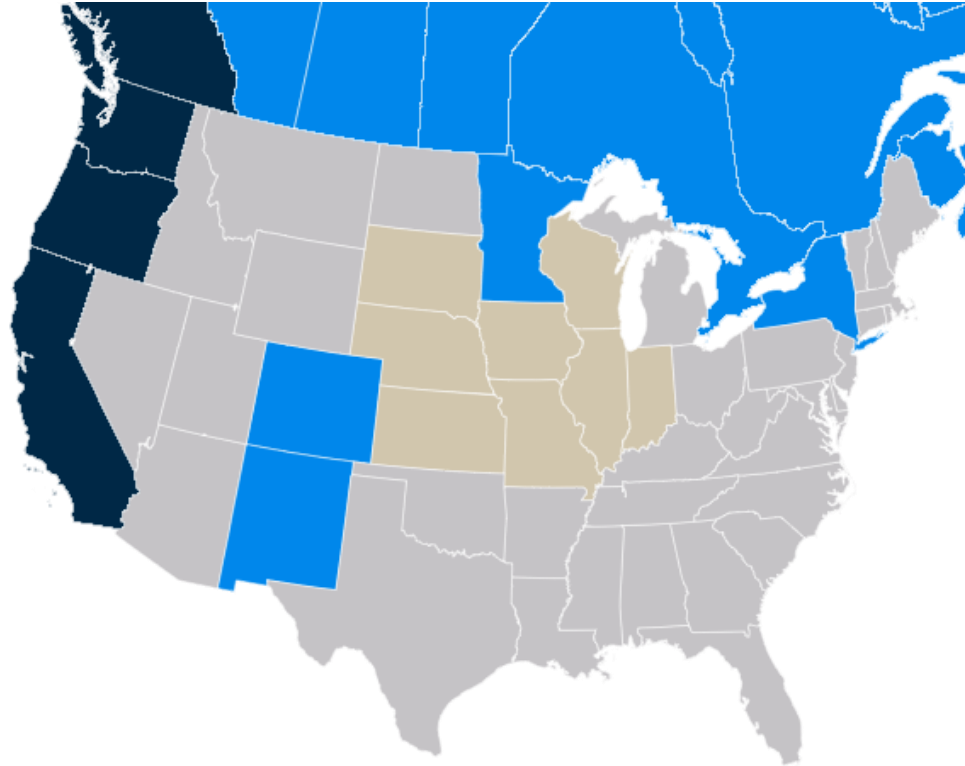
~ **1.4 billion**
Gallons of Gasoline
Consumed



~ **15 million**
Acres of Forest
per Year

Growing Low-Carbon Markets Provides Attractive Market

NORTH AMERICAN LOW-CARBON FUEL MARKETS

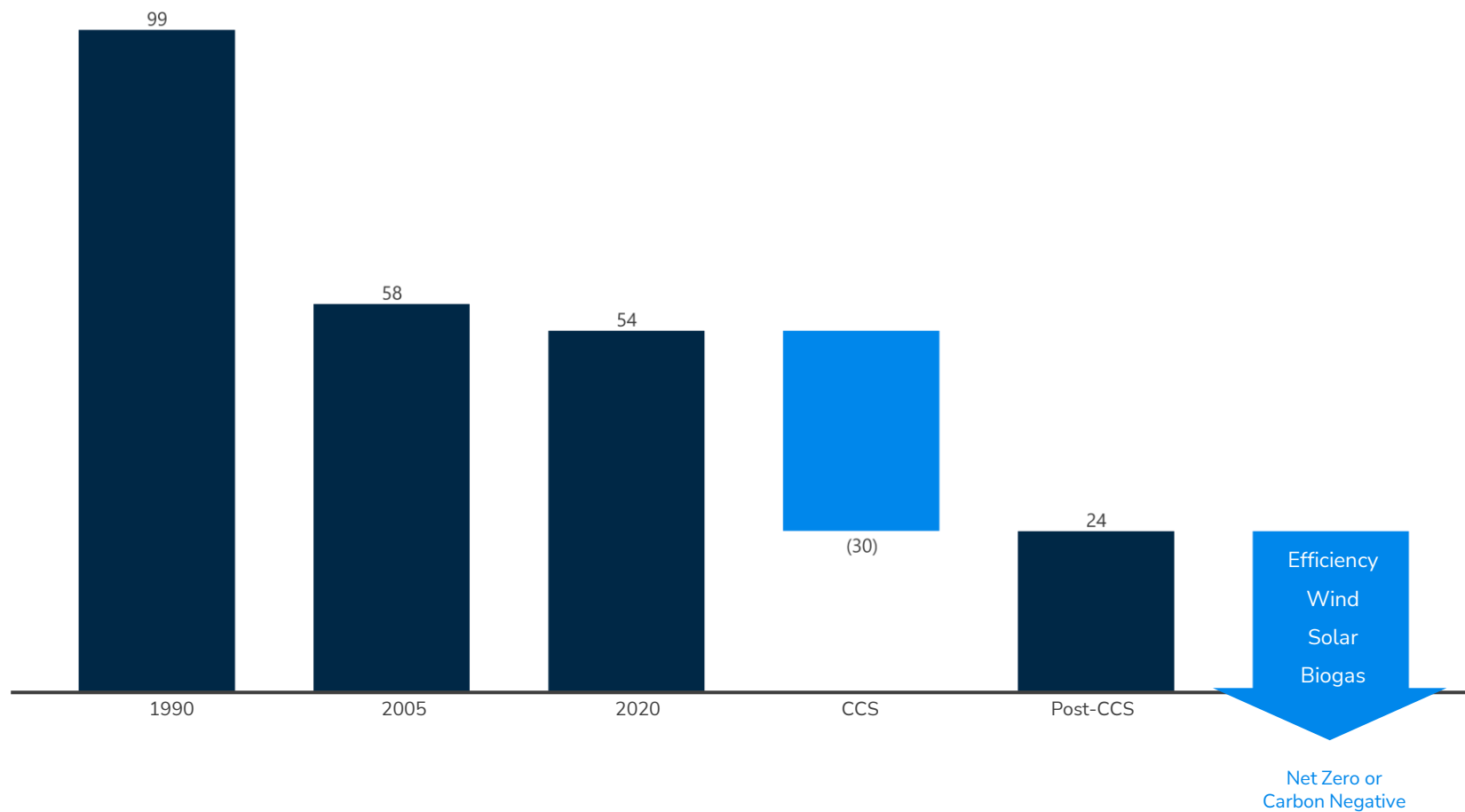


BILLION GALLONS OF LOW-CARBON ETHANOL DEMAND

Existing	Likely	Proposed	Total
2.1	2.2	1.8	6.1

CCS Provides a tangible path to Net Zero

ETHANOL CARBON INTENSITY DECREASING DRAMATICALLY OVER TIME



Our Commitment to You

SUMMIT CARBON SOLUTIONS WILL WORK WITH LANDOWNERS, COMMUNITY LEADERS, STAKEHOLDERS, AND MORE WITH RESPECT, HONESTY, AND TRANSPARENCY. IF YOU FEEL THAT HAS NOT BEEN DEMONSTRATED, PLEASE REACH OUT TO INFO@SUMMITCARBON.COM

THE SAFETY OF OUR OPERATIONS, OUR EMPLOYEES, THE COMMUNITIES WHERE WE OPERATE, AND OUR LANDOWNER PARTNERS IS OUR TOP PRIORITY AND ALWAYS WILL BE.

WE WILL BE GOOD STEWARDS OF THE LAND ACROSS OUR ENTIRE PROJECT AREA. SUMMIT CARBON SOLUTIONS WILL PROTECT AND RESTORE LANDS, TOPSOIL, DRAIN TILES, DRAINAGE SYSTEMS, AND MORE TO THEIR PRECONSTRUCTION LEVELS.



Compensation for Landowners

SUMMIT CARBON SOLUTIONS WILL HAVE
LAND AGENTS ASSIGNED TO EACH
INDIVIDUAL LANDOWNER FOR
THE DURATION OF THE PROJECT.

WE ARE COMMITTED TO BUILDING AND
MAINTAINING A POSITIVE, PRODUCTIVE
RELATIONSHIP WITH LANDOWNERS BUILT
ON TRUST AND TRANSPARENCY.



Along with safety, it is a top priority for Summit Carbon Solutions to negotiate easements with landowners that are agreeable for both parties and provide value to both parties.



Easement rights are acquired with the land and are not impacted by future changes in ownership.



Compensation is based on a fair market value for land in the county – Summit will be utilizing recent comparable sales data for each county to determine the fair market value. Summit is offer 100% of the fee value based on that comparable sales analysis for its permanent easement.



Summit Carbon Solutions will pay for anticipated damages to crops or lands prior to construction and work directly with landowners to address their specific concerns related to the impact of construction on their property.

FOLLOWING TODAY'S MEETING, WE WOULD LIKE TO HAVE THE OPPORTUNITY TO VISIT WITH LANDOWNERS INDIVIDUALLY, ANSWER QUESTIONS AND HOPEFULLY SECURE YOUR PERMISSION TO START SURVEY WORK ON YOUR PROPERTY.



Crop Loss Compensation

SUMMIT CARBON SOLUTIONS WILL PAY LANDOWNERS FOR LOSSES TO CROPS PLANTED PRIOR TO CONSTRUCTION OR IF A CROP NORMALLY WOULD HAVE BEEN PLANTED PRIOR TO THE FINISH OF CONSTRUCTION

THE COMPANY WILL PAY THE FOLLOWING ESTIMATE PERCENTAGES OF THE CROP LOST DUE TO CONSTRUCTION:

100%

estimated crop loss in
the first year



80%

estimated crop loss in
the second year



60%

estimated crop loss in
the third year

Compensation figures will be based on the prevailing market price index by crop type or in accordance with any prearranged purchase agreements and based upon the three-year annual average yield of the crop as documented by the landowner or by the records from the local agricultural agency.



Drainage Tile

PIPELINE ON THE MIDWEST CARBON EXPRESS PROJECT WILL BE BURIED AT A MINIMUM OF FOUR FEET DEEP TO THE TOP OF THE PIPE

Summit Carbon Solutions will work with each landowner to develop a plan to restore drainage systems to its prior function.

EXAMPLES INCLUDE:

Individual drain tile repairs

Installation of new drain tile(s)

Redesign and re-installation of the drain tile system

WHO PERFORMS THE WORK?

As a common practice, Summit Carbon Solutions will employ a professional drain tile company to repair tile damaged during construction. We are also willing to work with landowners who prefer to hire their own contractor for the repairs.

Summit Carbon Solutions will pay reasonable costs if the company chooses to have a representative present during this process.

When practical, Summit Carbon Solutions will work with landowners to relocate tile(s) prior to the start of construction.