



NLC25

TUCSON, ARIZONA

#nlc25

Voluntary Carbon Markets

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In Today's Talk...

Relevance to Agents

A Brief Note on the Science

Overview of the market

Case studies

Relevance to Buyers

Effect on Real Estate

Relevance to Agents

Level up as an agent by being able to advise potential buyers on a real opportunity for them to offset costs, fund ranch improvements, and develop a new marketing strategy

Relevance to Agents

Become a more desirable agent by advertising you can advise clients on their opportunities to join the market

Relevance to Agents

The carbon market is a real opportunity for landowners to generate an additional stream of income

A Brief Note on the Science

Soil carbon sequestration defined:

A process in which CO₂ is removed from the atmosphere by plants through photosynthesis and stored in the form of soil organic carbon

A Brief Note on the Science...

↑ Belowground production
=
↑ Soil carbon accrual



What is the voluntary carbon market?

4 Main Characteristics

Private market (not regulatory, governmental market)

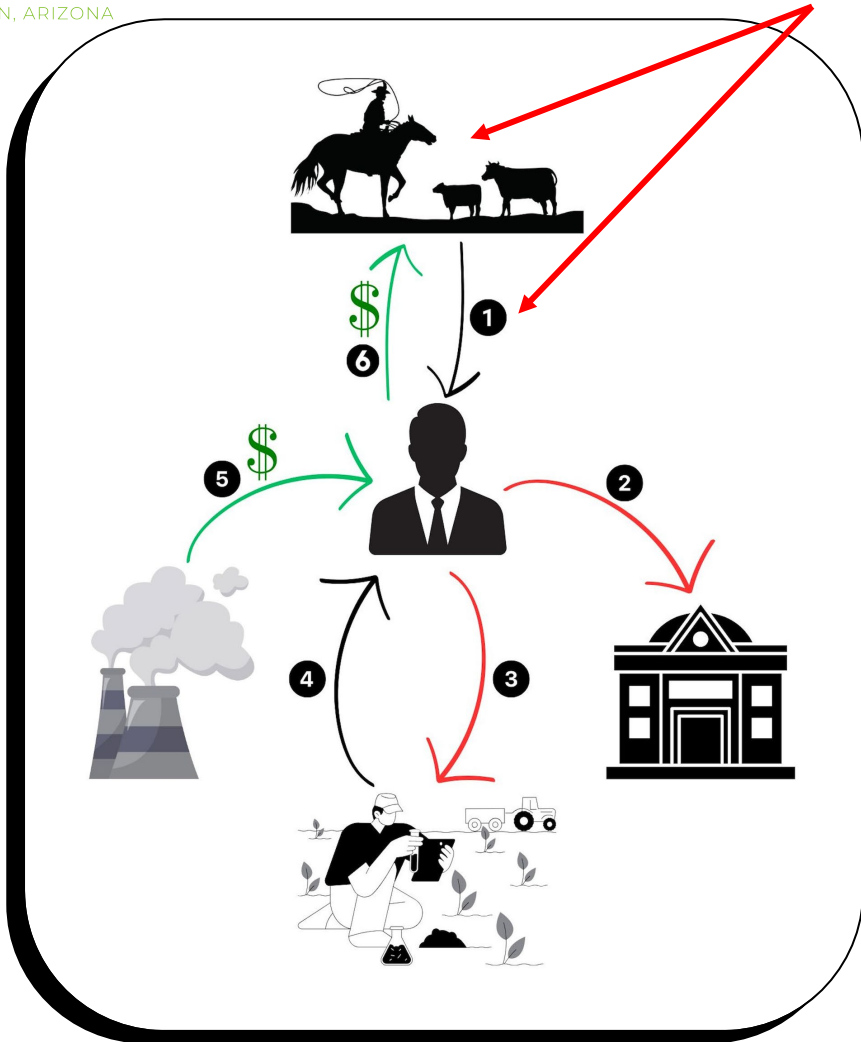
Companies voluntarily buy carbon credits to offset their GHG emissions

1 carbon credit = 1 metric ton of carbon dioxide equivalents sequestered or avoided

There are 170 types of carbon credits

Real estate agent

Market structure



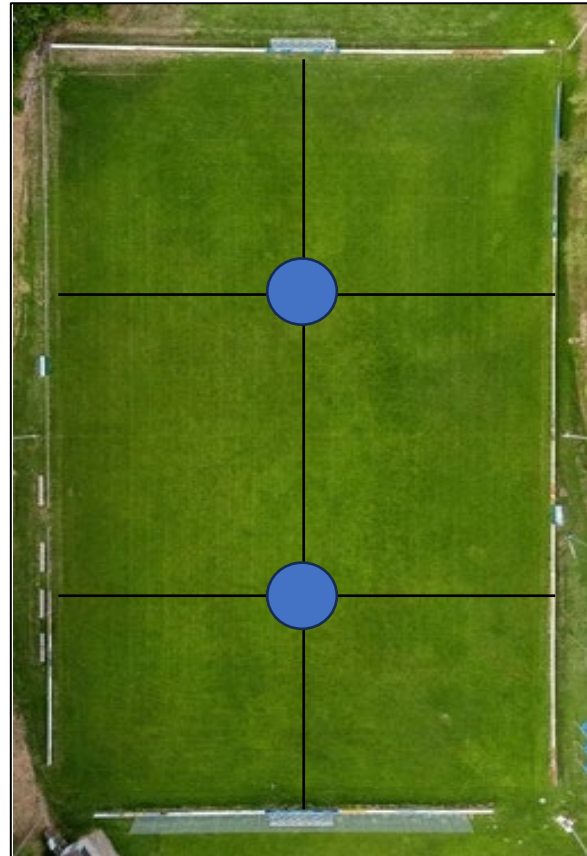
- 1 Landowner collaborates with project developer
- 2 Project developer serves as liaison between landowner and registry (rule making bodies)
- 3 Project developer ensures project is certified by third party
- 4 Third party verifies soil carbon sequestered/avoided (every 5 years)
- 5 Project developer sells certified credits to buyer and collects revenue
- 6 Project developer pays landowner based on contract stipulations

Rancher Management Changes

Easement

Rotational grazing

Fertilize/reseed



Farmer Management Changes

Cover cropping



Reduced/no
tillage

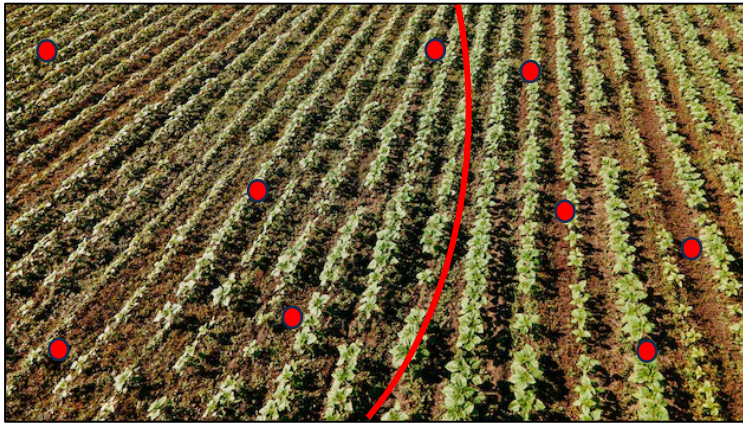
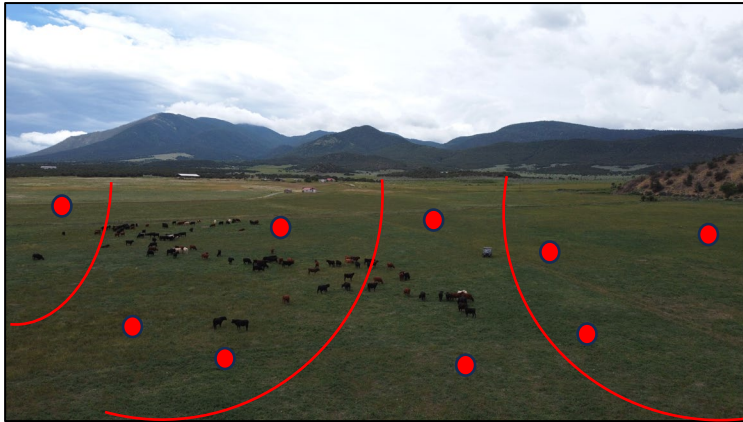


Reduce N
fertilizer

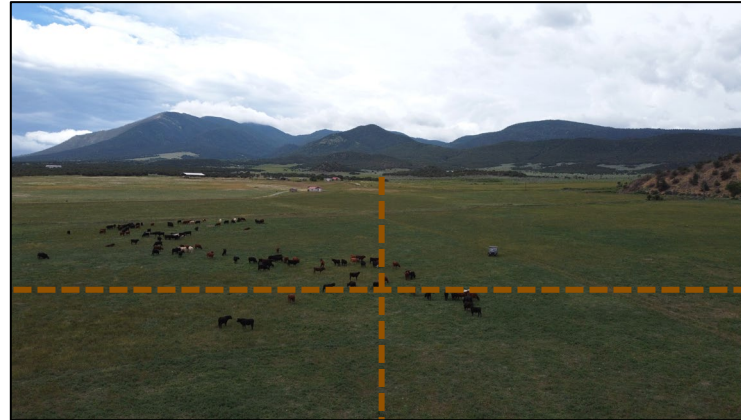


Determination of Credits

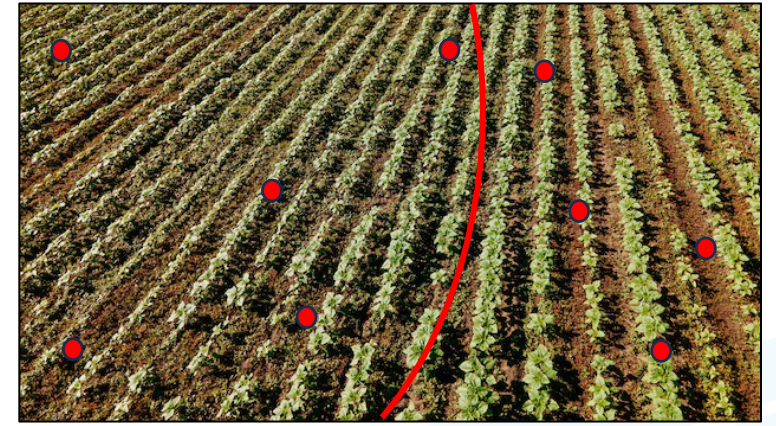
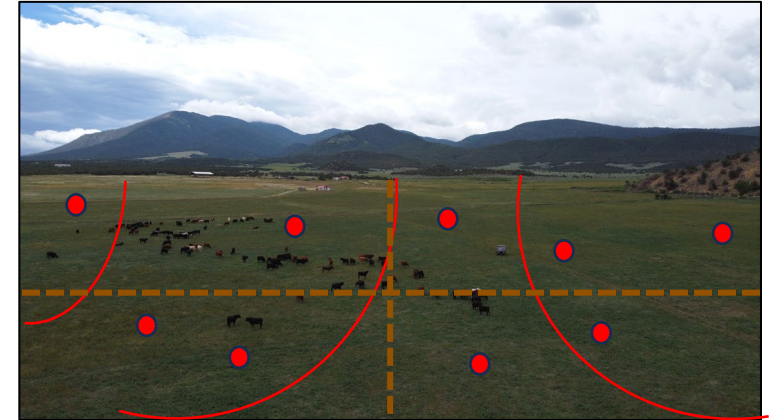
Year 0



Year 1

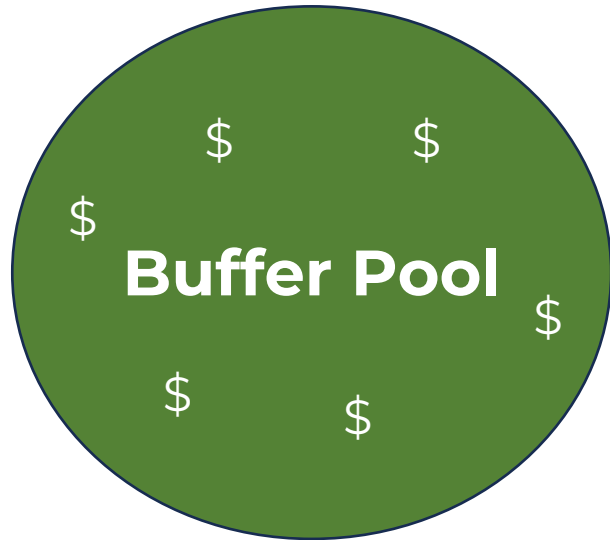


Year 5, 10, 15...

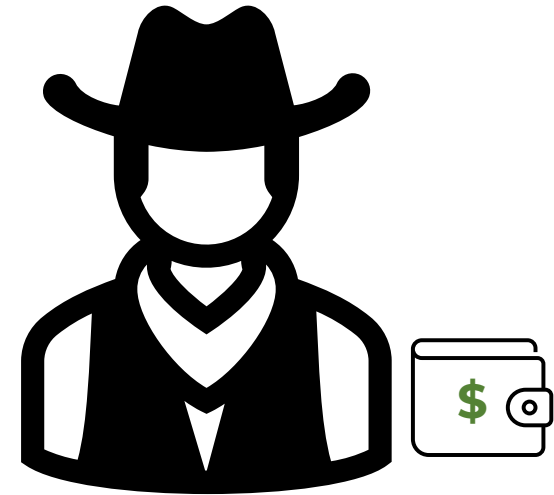


How is the landowner at risk?

Unavoidable reversals:
natural disasters, wind



Avoidable reversals:
tilling, development



Prominent companies

Ranchers

Farmers

Kateri

 Grassroots
Carbon

 **native**
A Public Benefit Corporation

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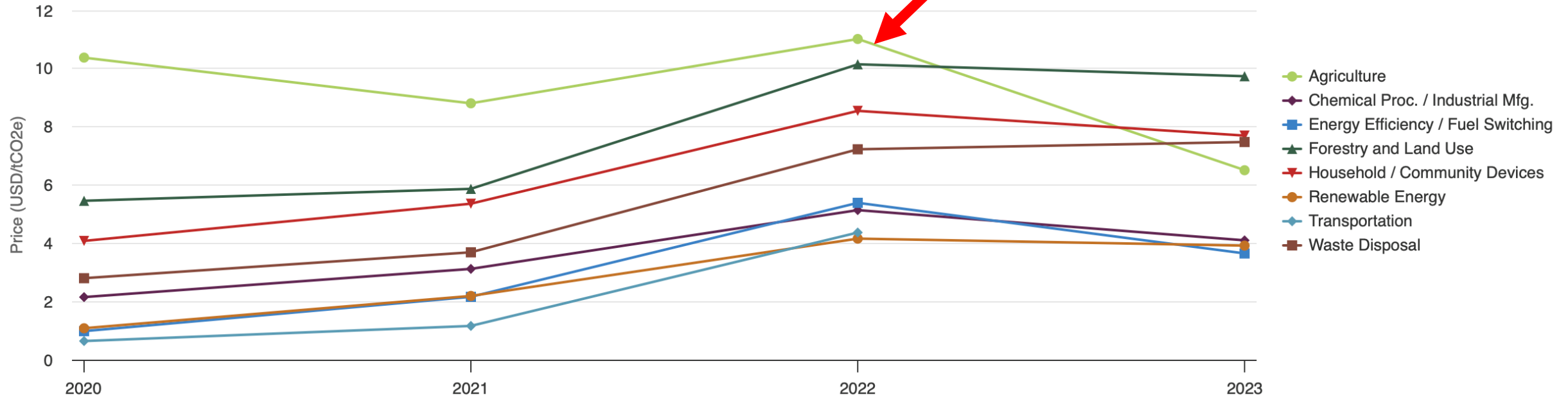


 **CARBON
FRIENDLY**

Market values

Price by Category and Year (USD/tCO2e)

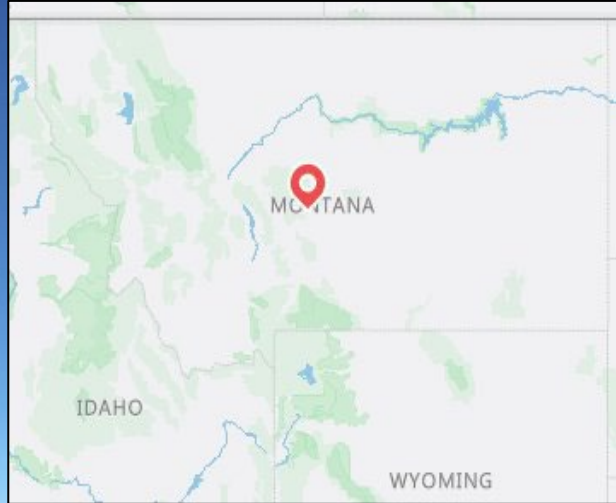
Hover over chart for more details by category. Click on categories in legend to show/hide on chart



CATEGORY	2022			2023			Percent Change		
	Volume (MtCO ₂ e)	Value (USD)	Price (USD)	Volume (MtCO ₂ e)	Value (USD)	Price (USD)	Volume	Value	Price
Forestry & Land Use	113.0	\$1.1 B	\$10.14	36.2	\$351.3 M	\$9.72	-68%	-69%	-4%
Renewable Energy	92.7	\$386.1 M	\$4.16	28.6	\$111.1 M	\$3.88	-69%	-71%	-7%
Chemical Processes/ Industrial Manufacturing	13.3	\$68.5 M	\$5.14	12.2	\$50.2 M	\$4.10	-8%	-27%	-20%
Household/ Community Devices	9.1	\$77.6 M	\$8.55	9.9	\$76.6 M	\$7.70	+10%	-1%	-10%
Energy Efficiency/ Fuel Switching	6.6	\$35.6 M	\$5.39	9.4	\$34.4 M	\$3.65	+43%	-3%	-32%
Agriculture	3.8	\$41.7 M	\$11.02	4.7	\$30.6 M	\$6.51	+24%	-26%	-41%
Waste Disposal	6.2	\$44.9 M	\$7.23	1.5	\$10.9 M	\$7.48	-77%	-76%	+3%
Transportation	0.18	\$770 K	\$4.37	-	-	-	-	-	-

Agriculture averaged **\$6.51/credit** in 2023

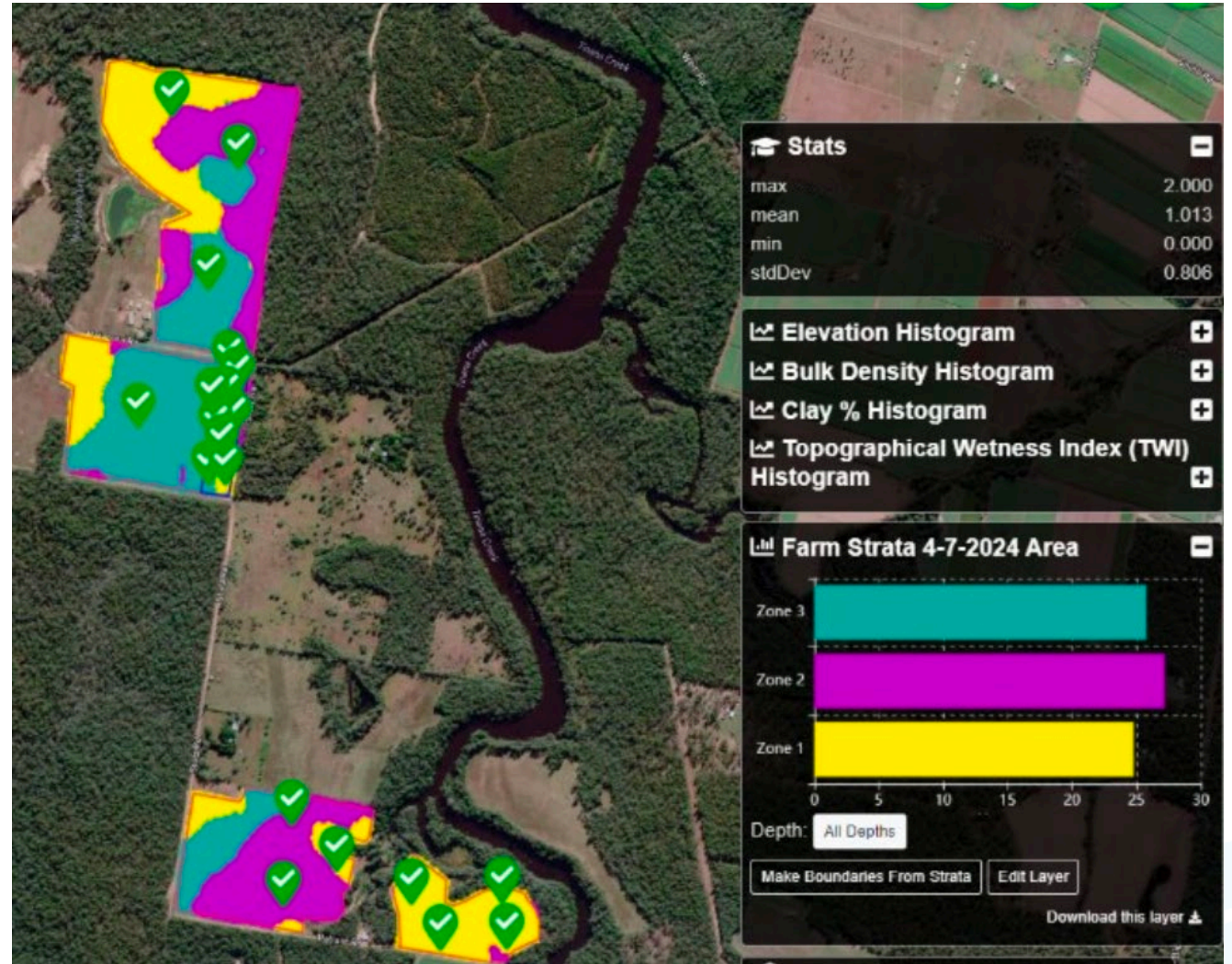
Rotational Grazing Case Study



	Before Project Activity (Baseline)	
Number of Pastures	23	
Average Pasture Size (acres)	322	
Average Days Grazed per Pasture	39	

- Issued 56,500 credits in November 2023
- ~33,000 acres
- At \$16/credit:
 - Total \$904,000
 - \$180,800 per year
 - ~\$5.48 per acre per year

Farming Case Study



Relevance to Buyers



**Opportunity for
an additional
stream of income**

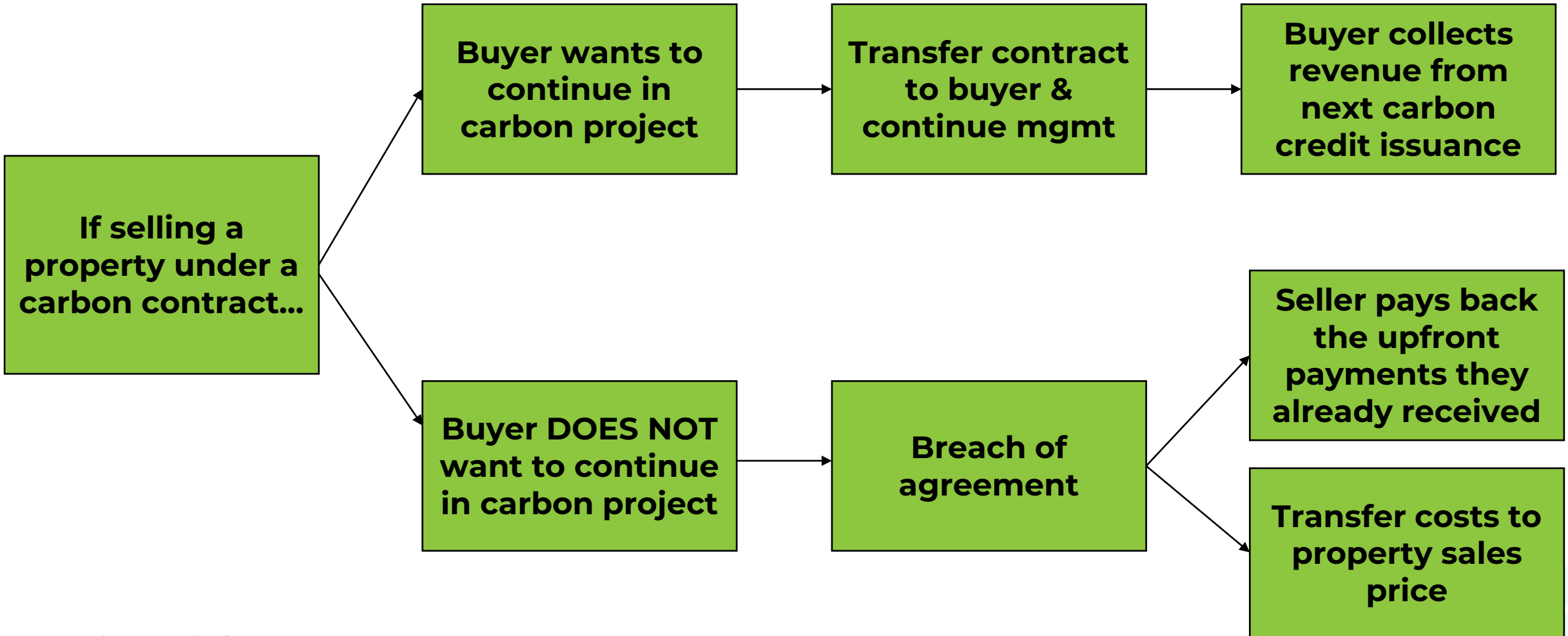


**Paid ranch/farm
improvements &
soil samples**



**Land stewardship
marketing
(carbon neutral
products)**

Affect on Real Estate



Affect on Property Value



Additional stream of income
Infrastructure improvements
Marketing appeal



Limited on what you can do on the property

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Rancher opportunities in grazing land carbon markets in the United States

By Nicole Nimlos, Timm Gergeni, and John Derek Scasta

9 questions to consider when speaking with a carbon company

UPFRONT COSTS

Do I have to invest any resources into enrolling in a carbon project?

PROJECT DURATION

What is the duration of the contract?

MANAGEMENT

What management changes am I expected to make?

PAYMENT

How often will I get paid, and how much do you predict I will earn?

UNCERTAINTY

What happens if I don't accumulate soil carbon above my baseline?

LIABILITY

What liabilities could I face by entering into a carbon contract?

ETHICS

Who would my carbon credits be sold to?

SAMPLING

How often and how many soil samples will be collected?

LONG-TERM

How much uncertainty surrounds long-term soil carbon accumulation?

2025

JOURNAL OF THE ASFMRA

**Are ranchers interested in joining
the carbon market? Survey says:
maybe.**

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American Society
of Farm Managers
& Rural Appraisers



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