

# Evaluating Blue Carbon Potential

Blue is the New Green:  
Coastal Wetlands in Sustainability  
Planning



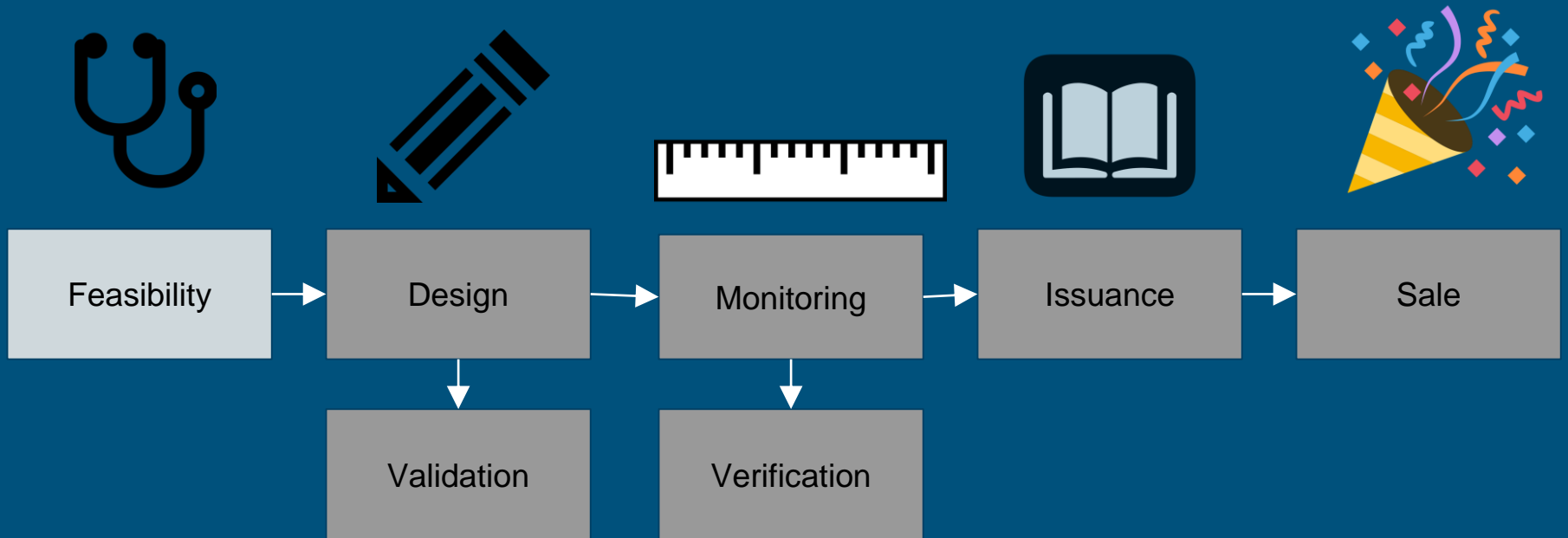
# \$2.0 B

Market based payments for forest carbon  
since early 2000s



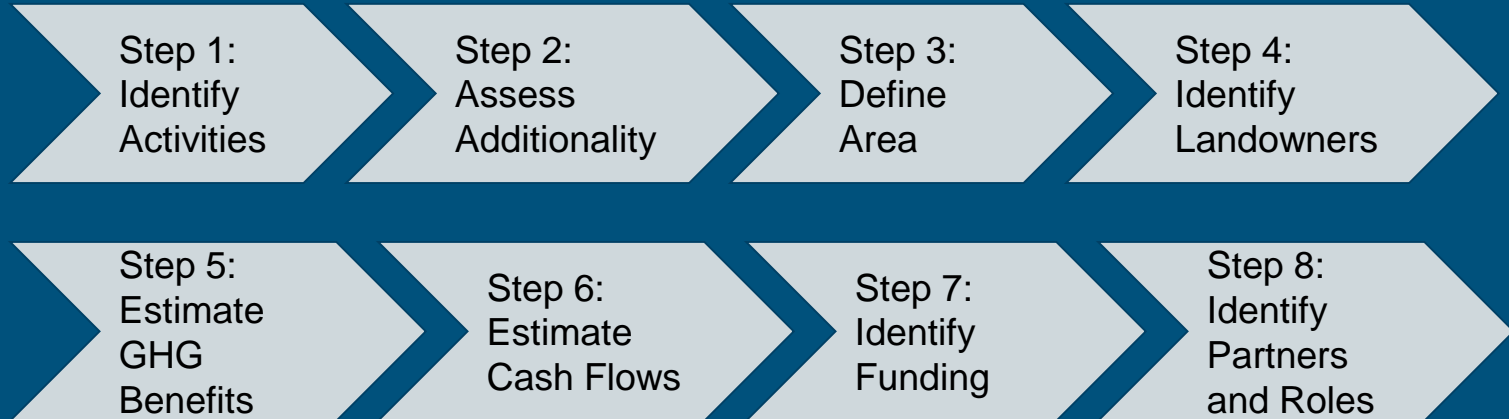
Source: State of Forest Carbon Finance,  
2016 Forest Trends

# Carbon Project Cycle



# Evaluating Blue Carbon Potential

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# Step 1: Identify Activities

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Restoring tidal  
flows

Improving Water  
Quality



Altering sediment  
supply

Replanting/  
Reseeding

Protection



Changing Salinity

Improving  
Management

# Step 2: Assess Additionality

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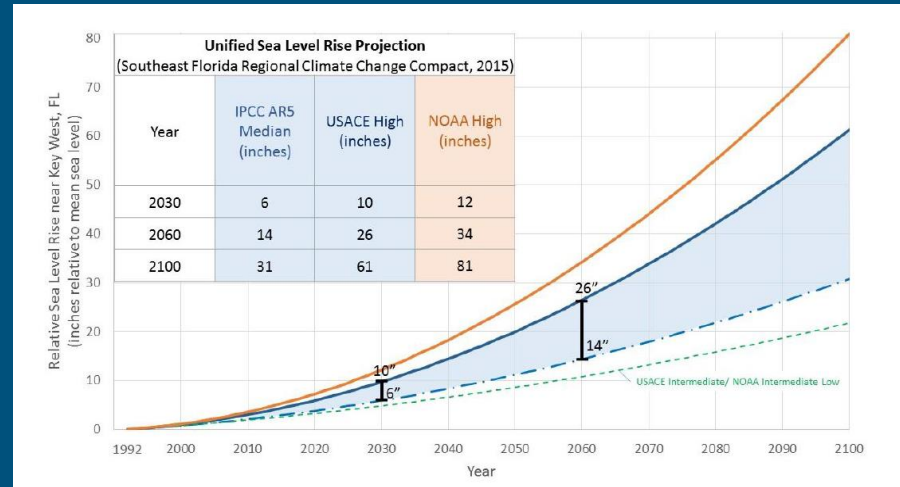
Is the activity required by law or regulation?

- Projects that are required by law or regulation are not considered “additional” (beyond business as usual) and therefore are not eligible to generate carbon offsets
- Excludes mitigation projects

# Step 3: Define Area

What is the area that will be impacted by the project activities?

- E.g., Conduct a hydrology study
- Consider regionally appropriate SLR projections
- Exclude areas that will be inundated over next 100 years



# Step 4: Identify Landowners

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Who owns title to the land?

→ Carbon rights follow land tenure rights, unless otherwise transferred

Is landowner interested and have authority to transfer the carbon rights?

→ Private landowners

→ Public landowners may have implicit authority (precedent)

Are there opportunities to expand over time?

→ Grouping

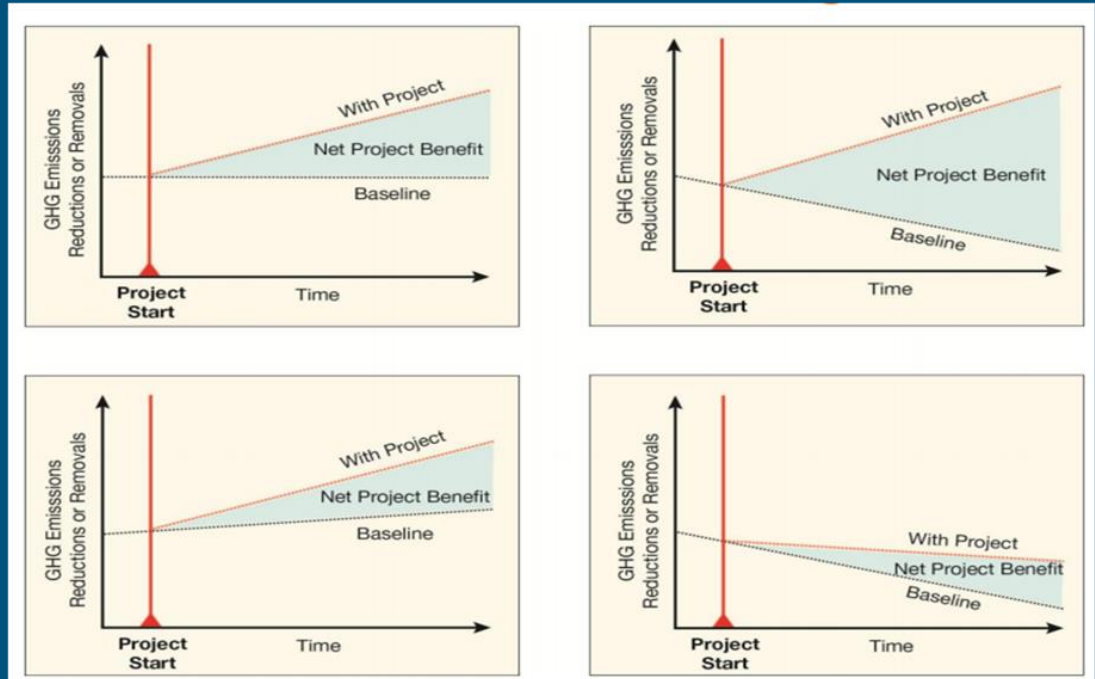


# Step 5: Estimate GHG Benefits

What are the potential GHG benefits (credits)?

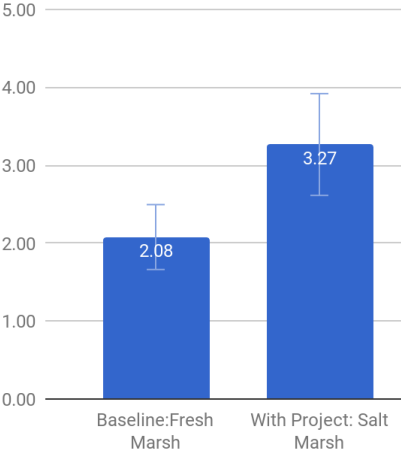
→ GHGs = CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O

→ Both pre- and post-restoration scenarios

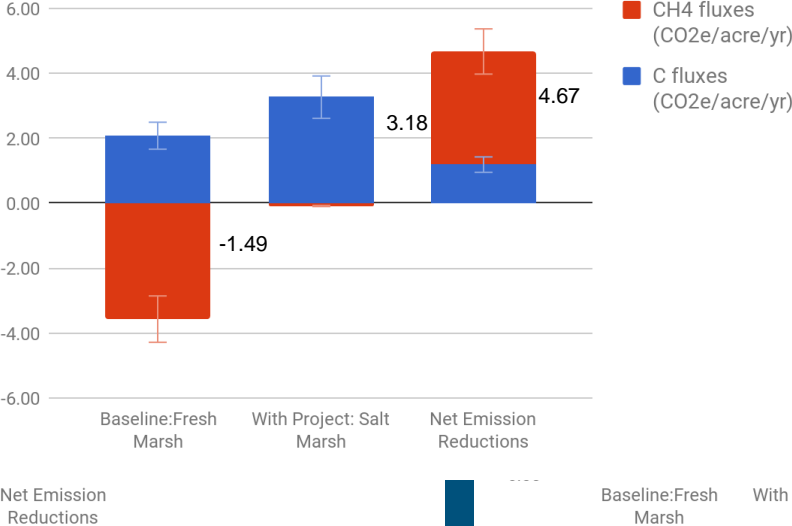


# Example: Credit potential

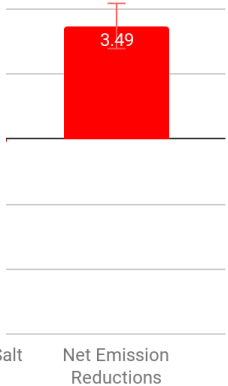
**Carbon fluxes**



**Net GHG Fluxes**



**CH4 fluxes (CO2e/acre/yr)**



# Step 6: Estimate Cash Flows

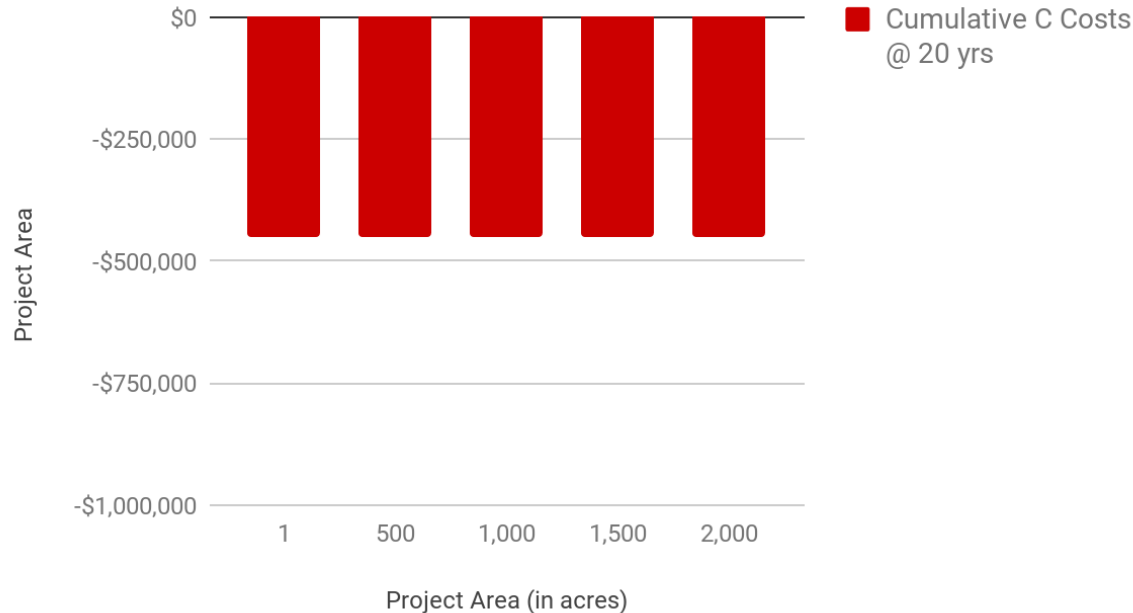
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What are the carbon project related cash flows?

- Consider upfront development and periodic monitoring costs
- Consider carbon revenues under different GHG and price scenarios

# Example. Carbon costs

## Carbon (C) Costs



Upfront costs  
Design = \$100k  
Validation = \$50k

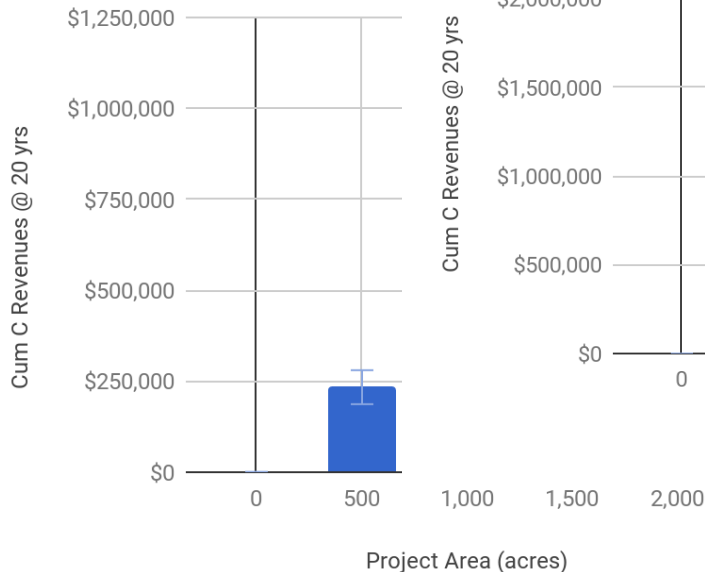
Periodic costs (every 5 yrs)  
Monitoring = \$50k/event  
Verification = \$25k/event

# Example. Carbon Revenues

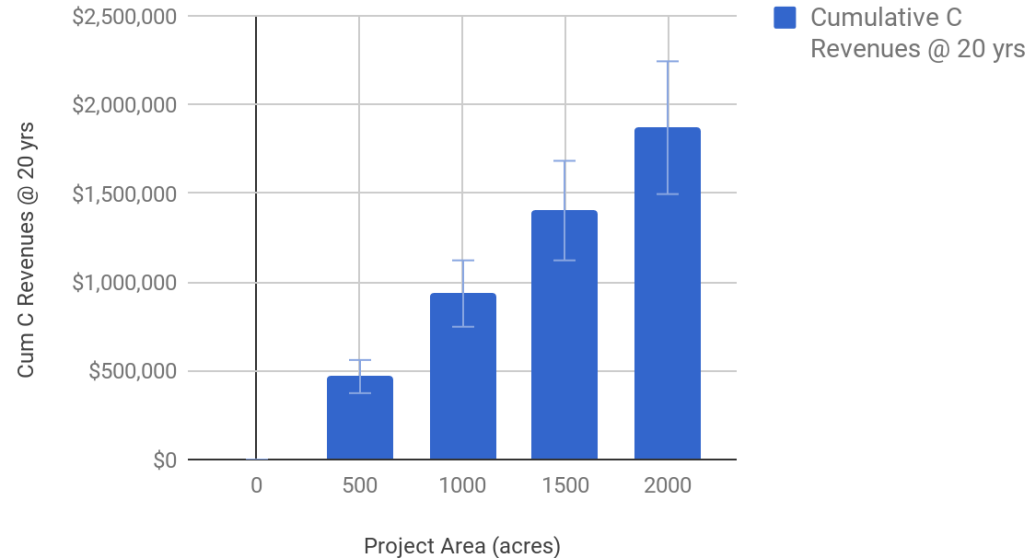
Project Area	Emission Reductions	Annual C Revenues @ \$5/ton	Cumulative C Revenues @ 20 yrs
1	4.67	\$23	\$467
500	2,337	\$11,684	\$233,671
1000	4,673	\$23,367	\$467,341
1500	7,010	\$35,051	\$701,012
2000	9,347	\$46,734	\$934,683

# Example. Carbon revenue scenarios

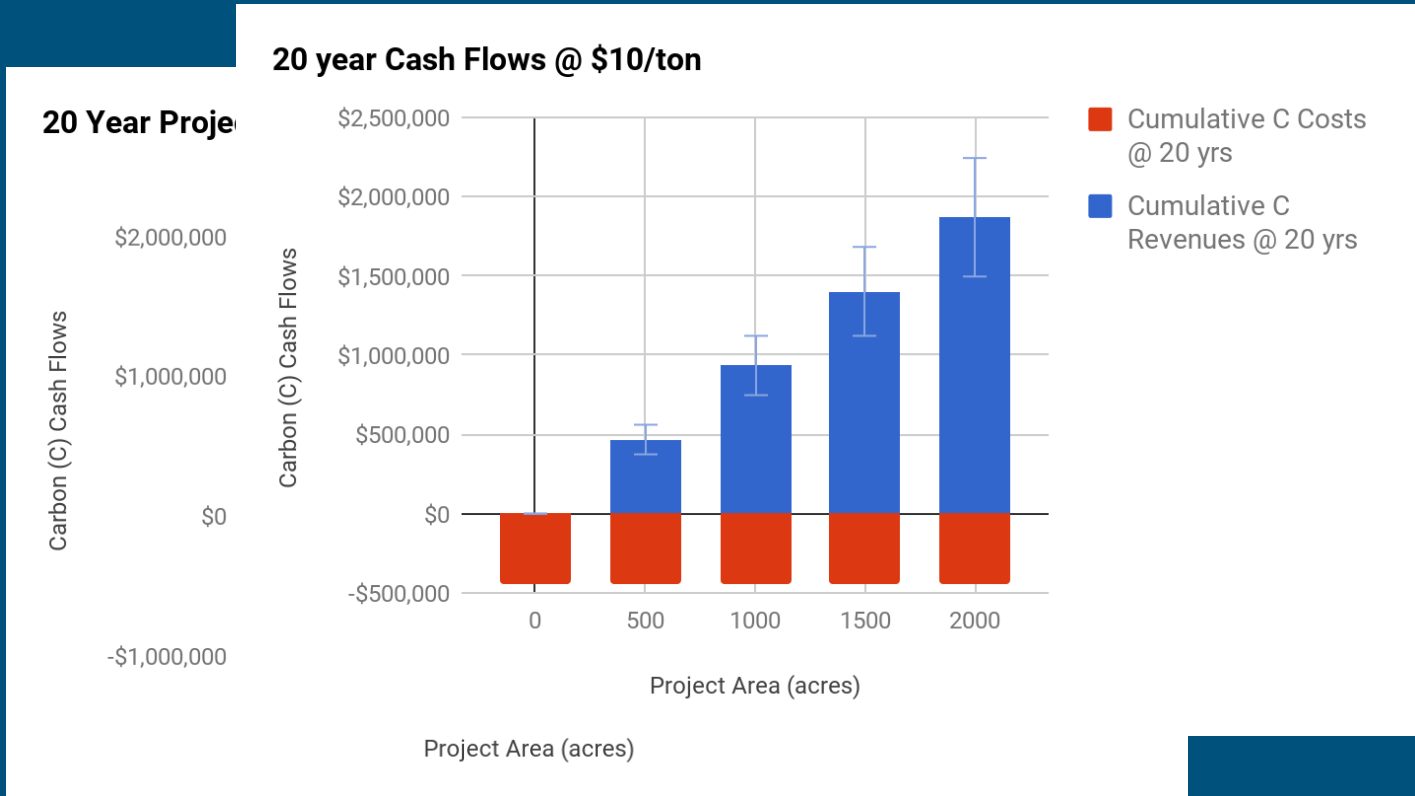
## Cumulative C Revenues @ 20



## Cumulative C Revenues @ 20 yrs @ \$10/ton



# Example. Net Carbon Cash Flows



# Step 7: Identify funding.

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Who are potential funding partners?



## Donors

- Provide grants
- Cover upfront costs and first monitoring
- Support first-of-kind projects, generate future revenue streams

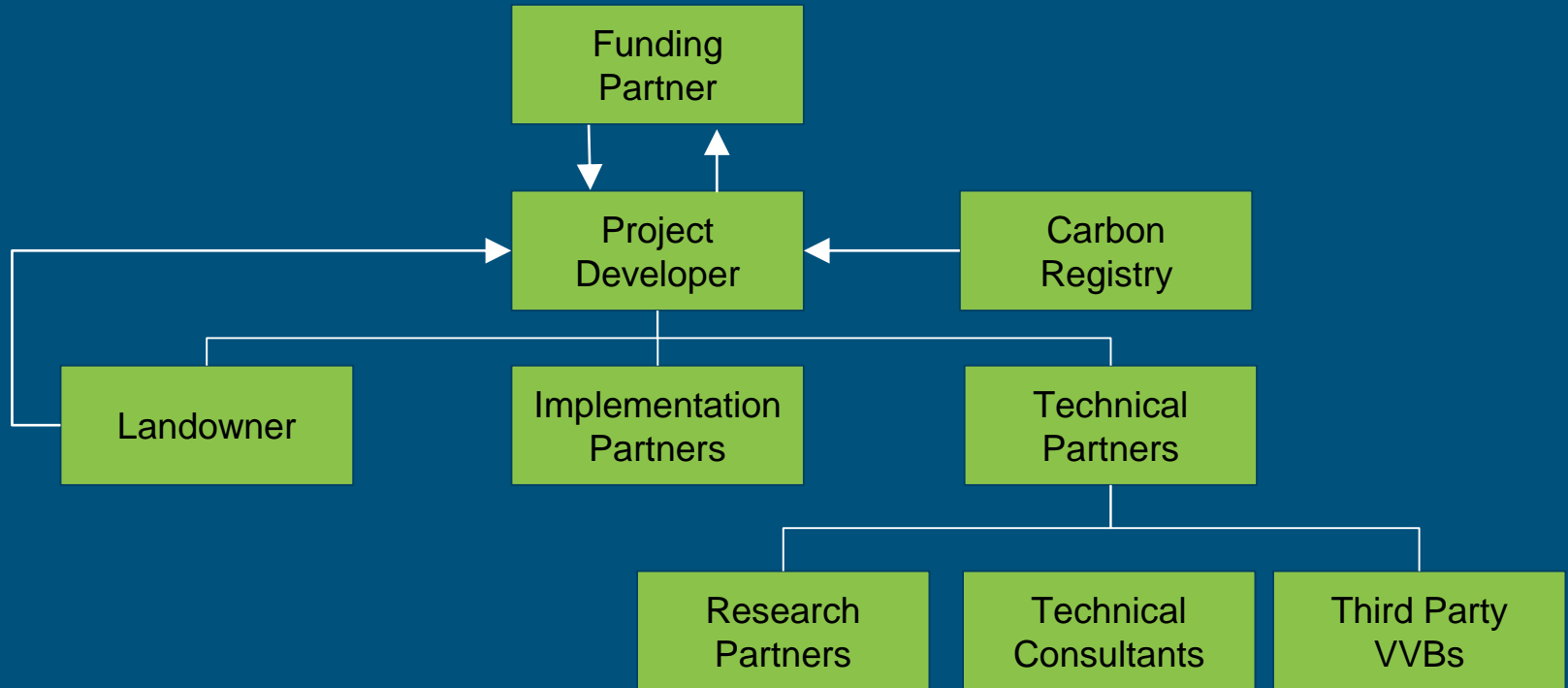


## Corporate offset partners

- Purchase offsets
- Cover periodic monitoring and management costs
- Paid in advance or on delivery



# Step 8: Identify partners and roles.



Not a decision to  
develop a carbon  
project.

Better information  
to inform decisions  
about future carbon  
project  
development.

# Benefits of Pilot Blue C Projects



Advance understanding of blue carbon projects

Leverage understanding to other voluntary projects

Contribute to future acceptance into regulatory markets and  
increased funding

# Thank-you

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