



Capitalizing on Coastal Blue Carbon

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Overview of the Carbon Methodology and Guidance Document

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Enabling Blue Carbon Finance – Review

VCS Standard and WRC Requirements

Methodology Development

Project Development

GHG Emission Reductions and Removals, and Offsets

Coastal Blue Carbon at the Nexus

Restoration / Conservation

Coastal Blue Carbon

Mitigation

Adaptation



Blue Carbon Finance Considerations

Motives are two-fold:

1. Developer wishes to achieve real, additional and measurable GHG emission reductions or removals (in support of any other overall purpose, ecologic, social or other)
2. Developer wishes to tap into additional funding.



Optimizing the carbon finance component should inform the project from the start.




Tidal Wetland and Seagrass Restoration Methodology

Goals

- Carbon finance for restoration
- Ecologically appropriate
- Scientifically credible
- Meet requirements of stringent GHG standards
- Broadly applicable to restoration
- Flexible in its use
- Practicable

VCS  METHODOLOGY 

METHODOLOGY FOR TIDAL WETLAND AND SEAGRASS RESTORATION

 RESTORE AMERICA'S ESTUARIES

Title	Methodology for Tidal Wetland and Seagrass Restoration
Version	20140722
Date of Issue	27 January 2014
Type	Methodology
Technical Scope	1.E. Agriculture, Forestry and Other Land Use (AFOLU) Project category: ARI - RW2
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Tidal Wetland and Seagrass Restoration Methodology

- Submitted to Verified Carbon Standard December 2013
- Draft available at www.v-c-s.org, search “wetland”
- First validation completed Dec 2014
- Second validation and VCS approval expected late 2015

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Methodology – Table of Contents Highlights

3 DEFINITIONS

4 APPLICABILITY CONDITIONS

5 PROJECT BOUNDARY

5.1 Temporal Boundaries

5.2 Geographic Boundaries, e.g. stratification, sea level rise, and buffer zones

5.3 Carbon Pools

5.4 Sources of Greenhouse Gases

6 BASELINE SCENARIO

6.1 Determination of the Most Plausible Baseline Scenario

6.2 Reassessment of the Baseline Scenario

7 ADDITIONALITY

7.1 Tidal wetlands and seagrass meadows in the United States

7.2 Projects outside the United States

8 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

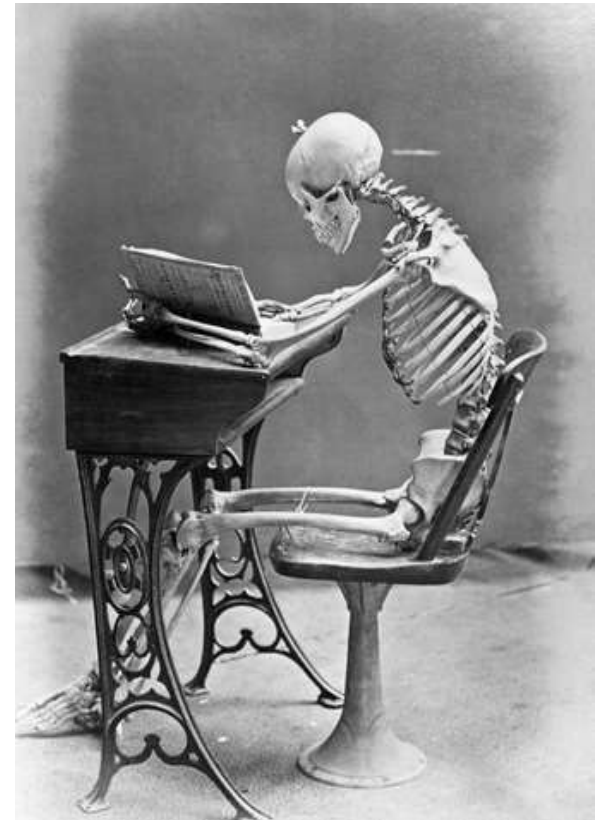
8.1 Baseline Emissions

8.2 Project Emissions

8.3 Leakage, activity-shifting and market

8.4 Net GHG Emission Reduction and Removals

9 MONITORING



Tidal Wetland and Seagrass Restoration Methodology

Habitats – all tidal wetlands and seagrasses, globally

- Marshes, all salinity ranges
- Mangroves
- Seagrasses
- Forested tidal wetlands

Eligible Activities

Restoration via enhancing, creating and/or managing hydrological conditions, sediment supply, salinity characteristics, water quality and/or native plant communities



Methodology – Eligible Activities

- Removing tidal barriers
- Improving hydrological connectivity
- Restoring tidal flow to wetlands
- Lowering water levels on impounded wetlands
- Beneficial use of dredge material
- Diverting river sediments to sediment-starved areas
- Restoring tidal flow to tidally-restricted areas
- Reducing nutrient loads - improved water clarity to expand seagrass meadows
- Recovering tidal and other hydrologic flushing and exchange
- Reducing nutrient residence time
- Re-seeding or replanting of native plant communities



Applicability Conditions

- No leakage (activity shifting or market)
- Lowering of the water table limited to:
 - Open water conversion
 - Maintain wetland conditions
- No Nitrogen fertilizers



Applicability Conditions

Additionality

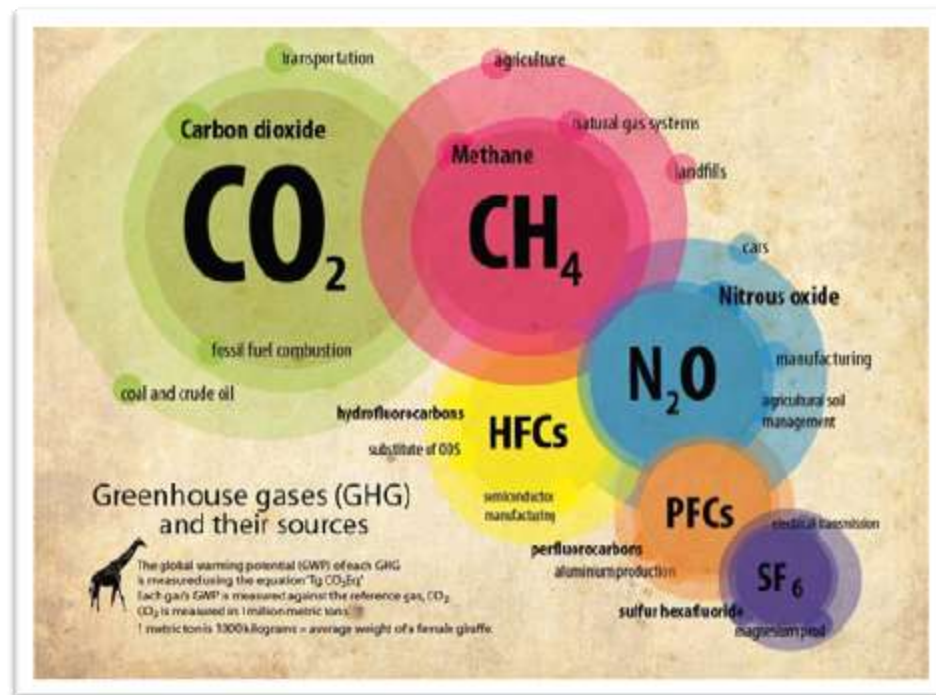
- Regulatory compliance test
- Standardized approach: In U.S., all new, voluntary tidal wetland and seagrass restoration is additional
- Non-U.S. projects must follow project tool




Methodology Overview

Greenhouse Gases

- CO₂
 - Biomass
 - Soils
 - Fuel emissions
- Methane
- Nitrous Oxide
- In baseline and with-project scenarios



Greenhouse Gas Accounting

- Published data
 - Default values
 - Emission factors
 - Field-collected data
 - Proxies
 - Models
-  ***FLEXIBILITY***
- Where science is insufficient, burden on project developers to demonstrate rigor of approach



Greenhouse Gas Accounting

Default Values

- 1.46 Mg C per ha per year for non-seagrass
- IPCC values for seagrasses and other land uses





Section #2

METHODOLOGY GUIDANCE



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Methodology Guidance

- Appropriate project
- Applicability conditions
- Project boundaries
 - Geographical and temporal
- Overview of relevant GHGs
 - Baseline and with project accounting
 - General information on accounting methods
 - Soil CO₂ oxidation in the baseline scenario
 - Soil CO₂ sequestration in the with-project scenario
 - Autochthonous v allochthonous carbon
 - Methane accounting
 - Nitrous oxide accounting.
 - Natural and prescribed fire
- Leakage
- Monitoring
 - Soil carbon
 - Methane and nitrous oxide
 - Sample size requirements

