

Hydrologic assessment framework for Blue Carbon restoration projects

Criteria to establish Blue Carbon ecosystems



Tidal influence

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Sea water influence dominating
freshwater influence

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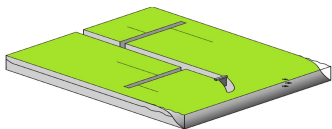


Vegetated Blue Carbon
ecosystems

Step 1

**Initial site
assessment and
conceptual
understanding**

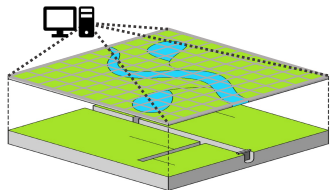
- Establish the eco-hydrological site context
- Review and analyse existing data
- Collect additional data via field surveys and monitoring campaigns as required
- Undertake initial mapping and develop a detailed conceptual model of the site and proposed activity



Step 2

**Detailed site
assessment and
scenario
modelling**

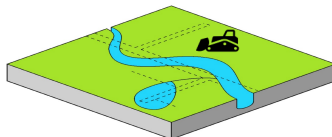
- Select appropriate modeling tool (e.g., GIS/spatial, hydrological, hydrodynamic)
- Develop and calibrate a hydrodynamic model (if applicable)
- Develop and shortlist/select restoration options
- Model each option to assess blue carbon ecosystem outcomes and impacts to adjoining properties



Step 3

**On-ground
implementation
and
management
solutions**

- Detailed design, planning, implementation and associated costings
- Consideration of a staged-approach to on-ground implementation
- Develop an on-ground action plan



Step 4

**Adaptive site
management**

- Set long-term blue carbon and hydrological targets for the site
- Develop a long-term monitoring program to benchmark against targets (before and after)
- Consider developing a flexible and adaptive site and risk management plan/framework

