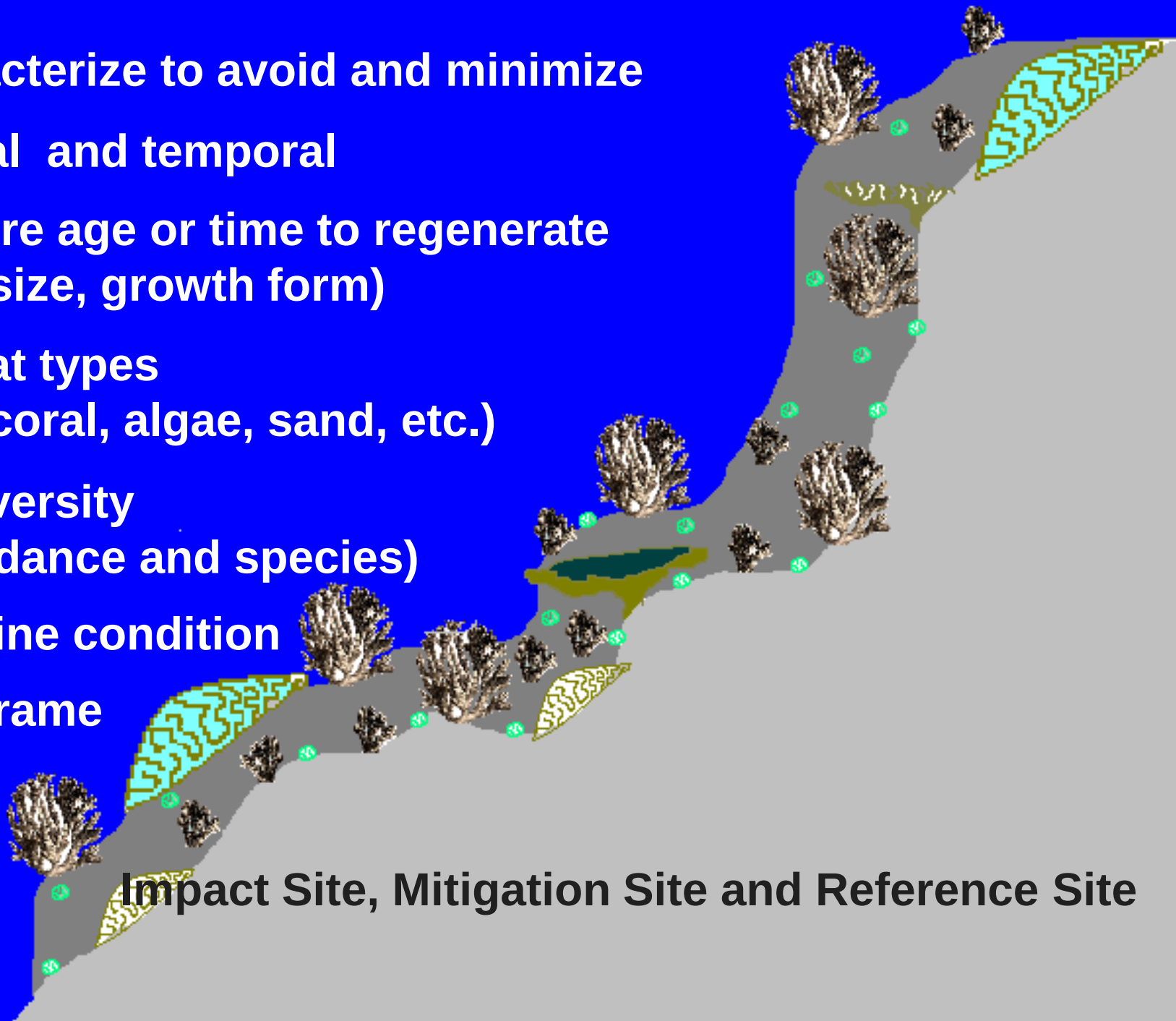
Functional Coral Reef Assessment

- Characterize to avoid and minimize
- Spatial and temporal
- Capture age or time to regenerate (*e.g.*, size, growth form)
- Habitat types (*e.g.*, coral, algae, sand, etc.)
- Biodiversity (abundance and species)
- Baseline condition
- Timeframe



Impact Site, Mitigation Site and Reference Site

Understanding Functions

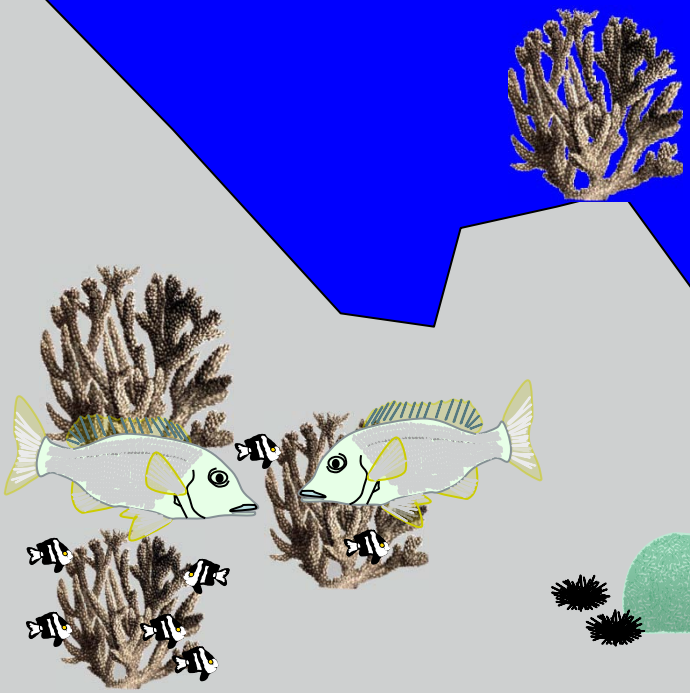
Habitat

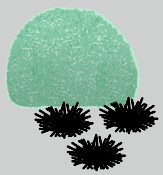
Flora/Fauna (key species)

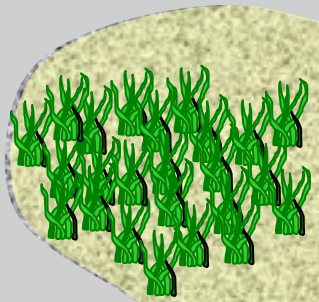
Life history

Physical attributes ($CaCO_3$ deposition, erosion)

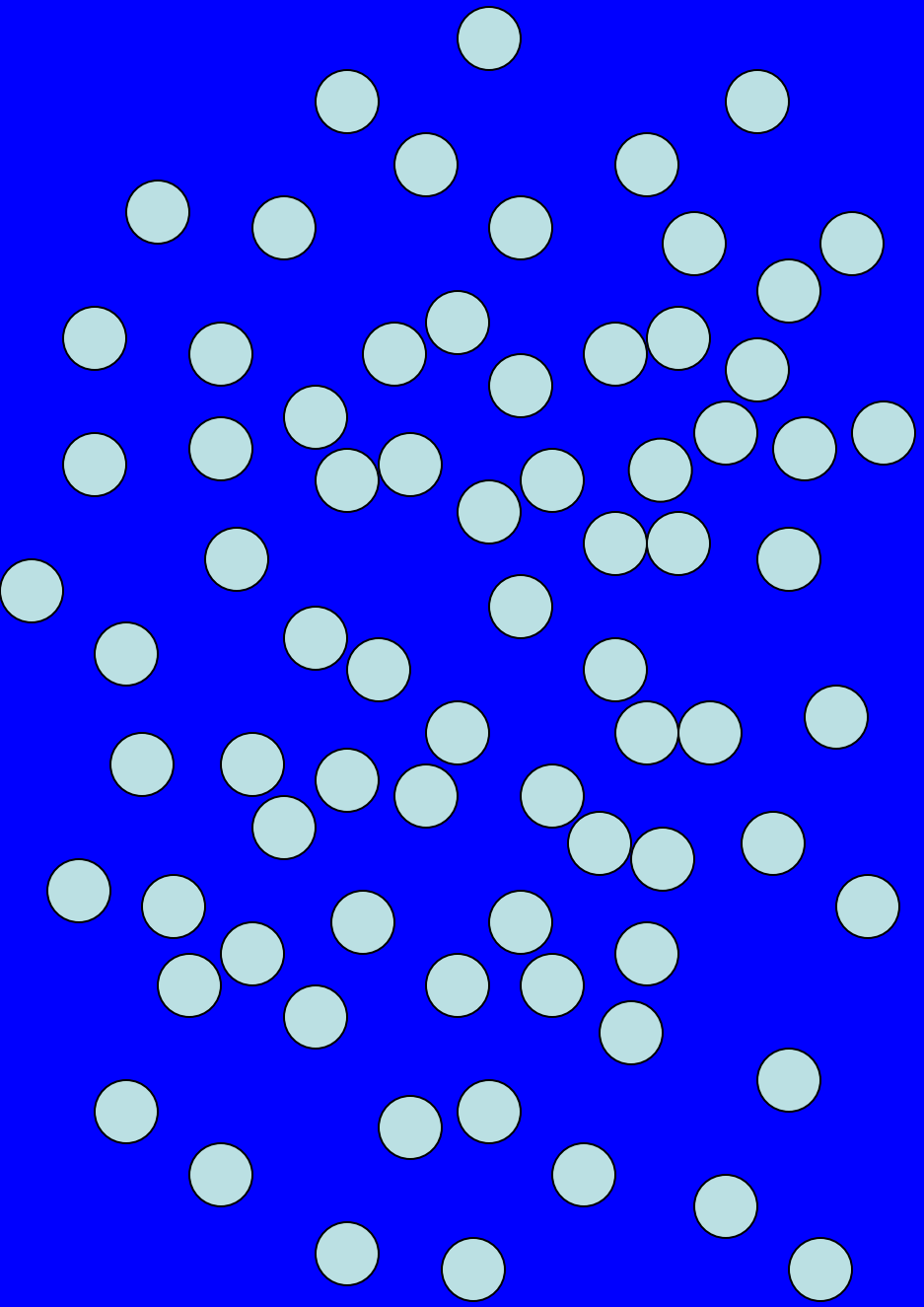
Chemical attributes

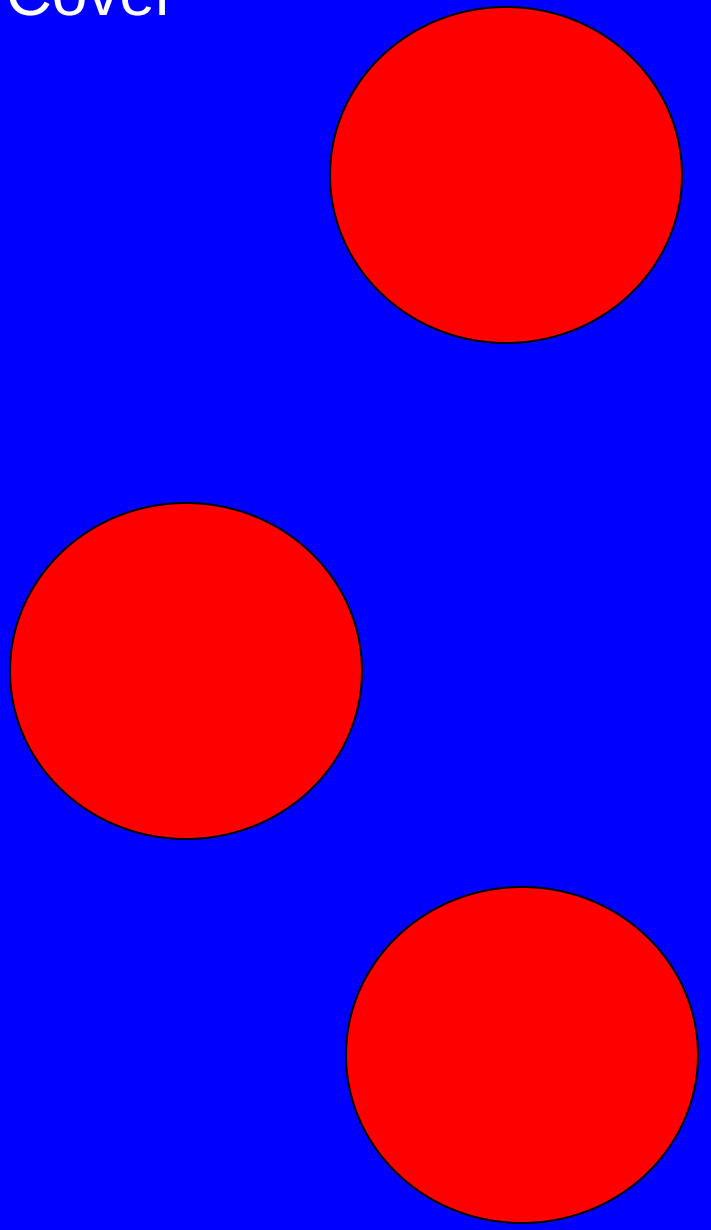




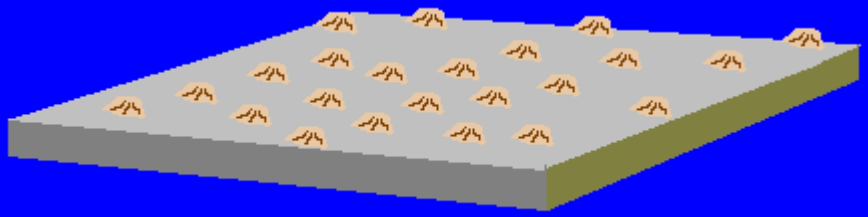


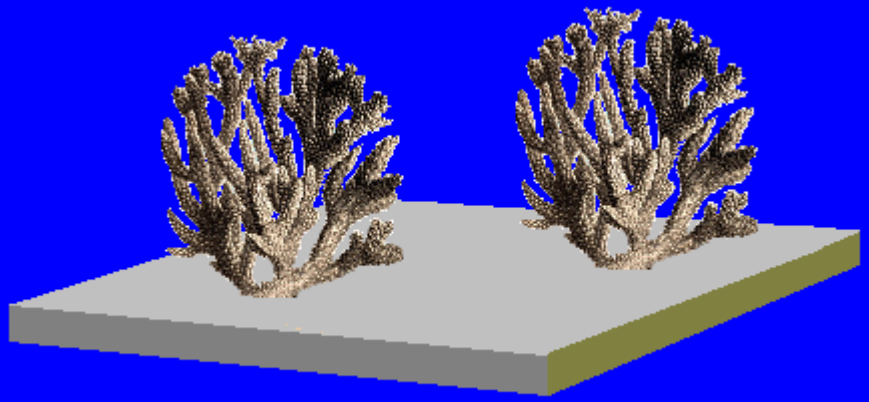
Same % Cover

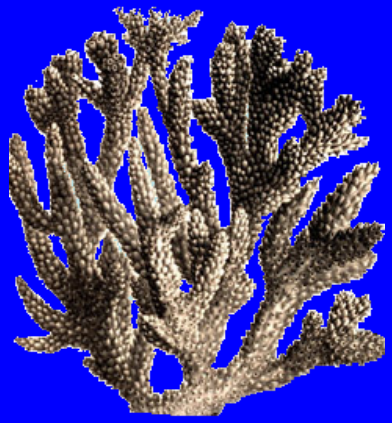




HOW TO MEASURE FUNCTIONS?







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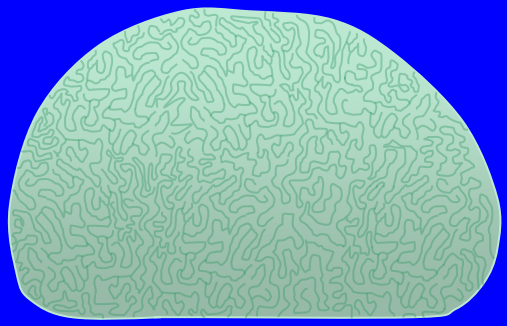

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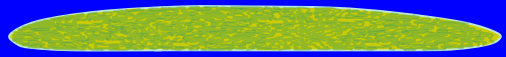


Full Replacement

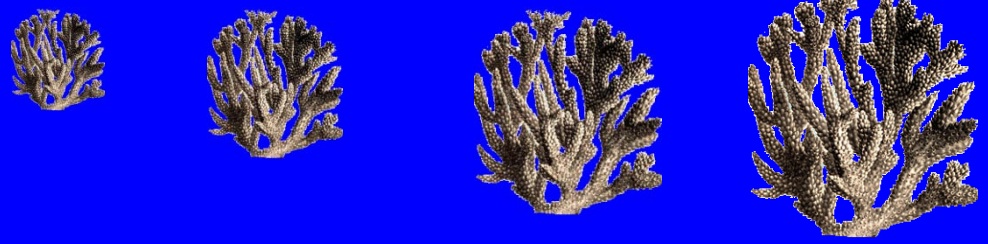
Services Lost

Replacement

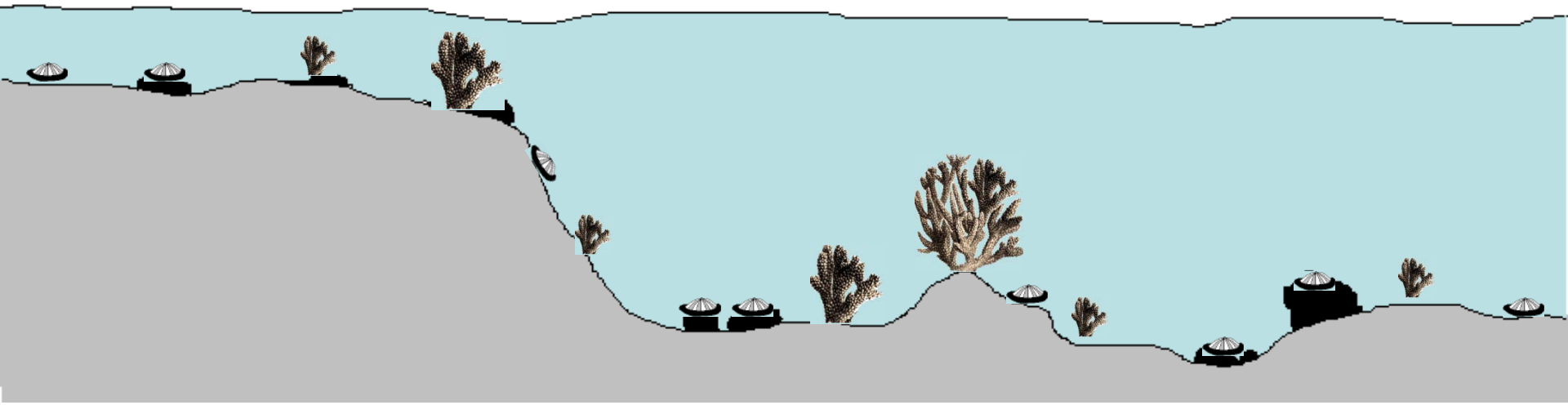
Time

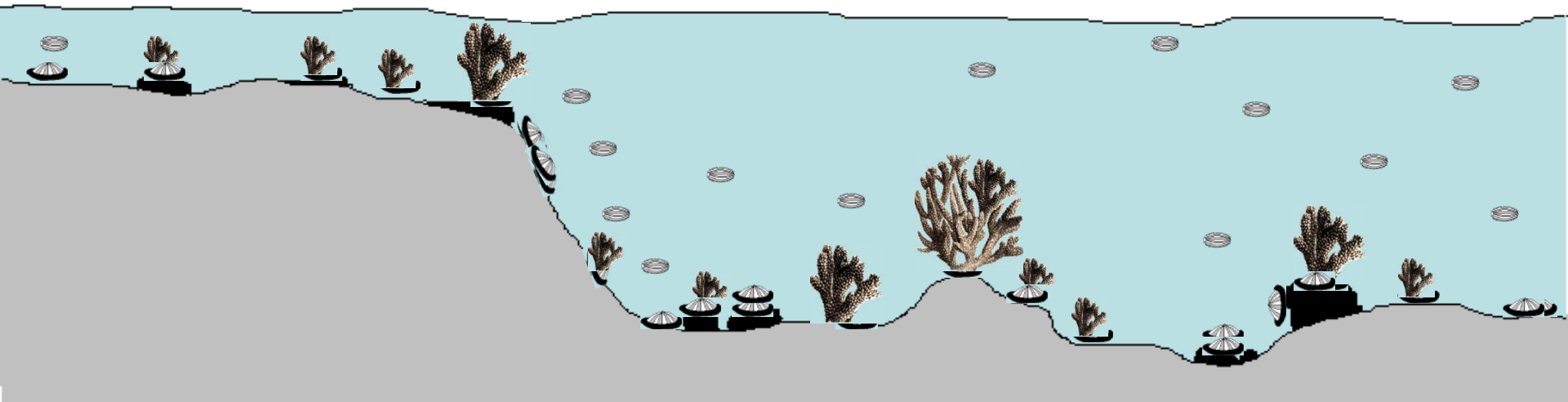
#

Baseline Number of corals



Healthy Baseline





Habitat Equivalency Analysis (HEA)

- Tool Developed for wetlands restoration.
- Applied in ship groundings and permit mitigation for coral reefs.
- Tool provides a method for comparing two sets of data for equivalence.
- Using this tool to compare the impact site to the restoration site for equivalence is a living process. (biology and development of tool).

Regional Interagency Review Team (IRT)

Team of members from ACOE, USFWS, USEPA, NMFS and The State has been formed to develop guidance on the in-lieu fee concept. A longer term target is recognizing completing Guidance a how to complete a functional assessment of coral reefs and building guidance on compensatory mitigation.

Opportunity to partner with Atlantic/Caribbean efforts in sharing expertise, developing tools and guidance.