The **Conceptual Ecological Model** can take whatever format the community decides

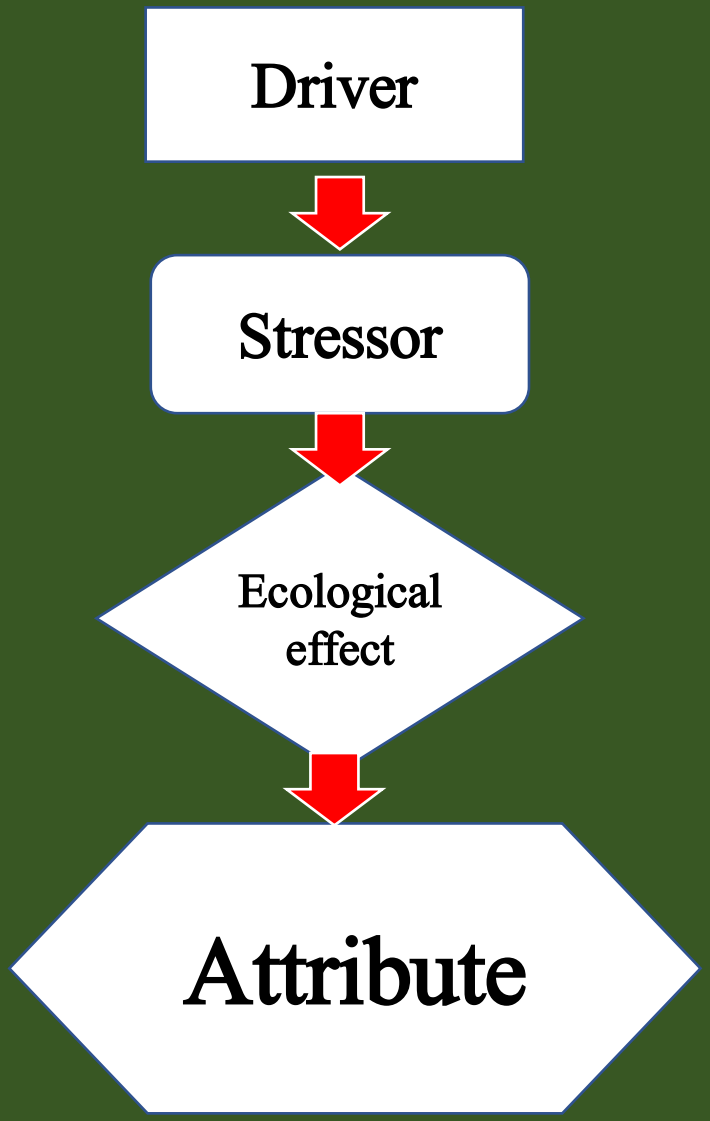
- Decide what components of the system you want to prioritize:
  Examples: seagrass
  commercial or recreational fishing,
  shoreline communities
  wading birds….

- Decide what processes affect them

- Understand what changes are occurring , and what changes can be influenced or changed

- Compartmentalize and formulate plans

A simplified Conceptual Ecological model



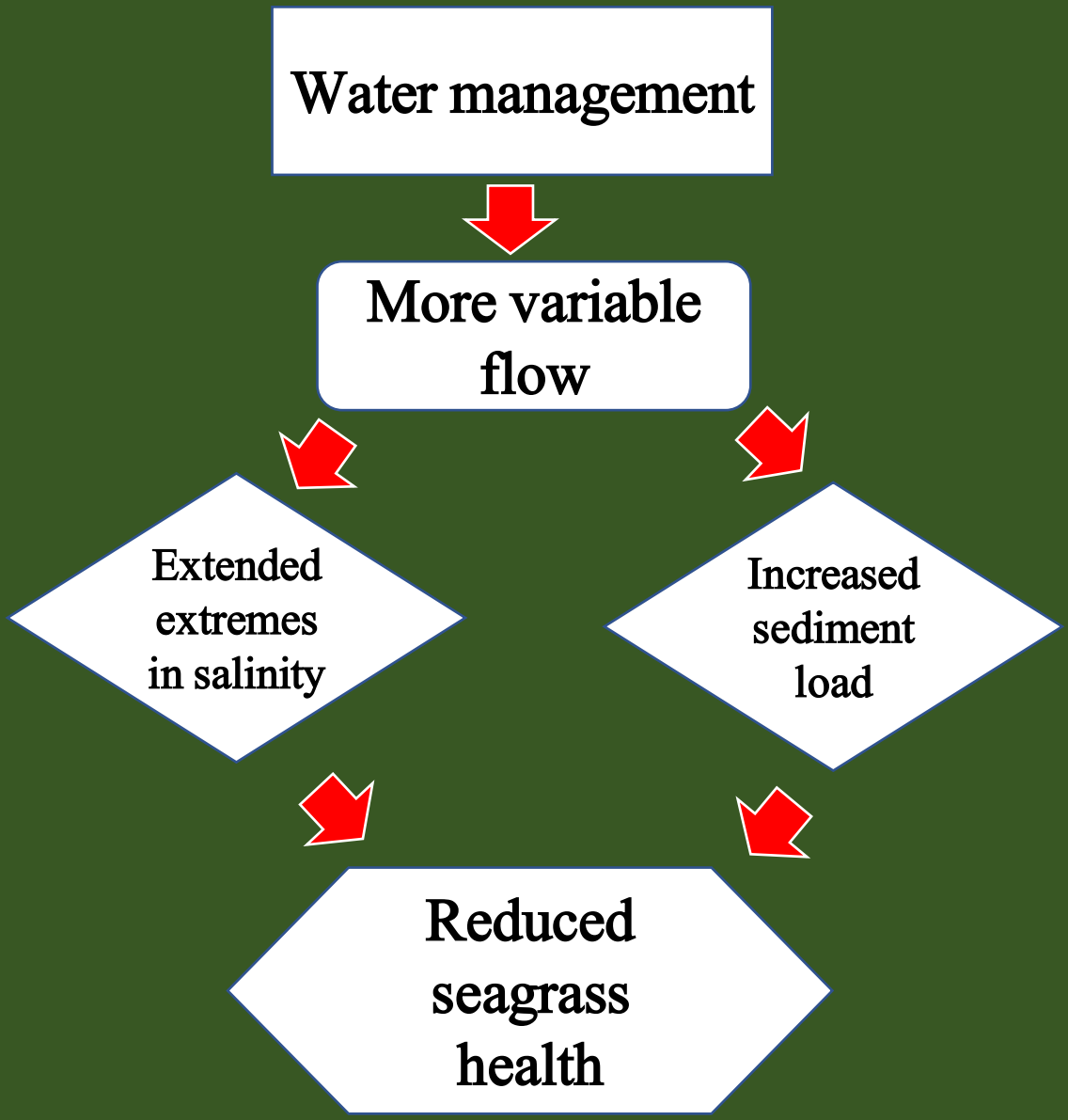
Drivers are natural or anthropogenic forces that affect a system

Stressors are the resulting changes

The response to the stressor

Components that are indicative of the health of the system

Example model



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THE USE OF CONCEPTUAL ECOLOGICAL MODELS TO GUIDE ECOSYSTEM RESTORATION IN SOUTH FLORIDA

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The Everglades Restoration conceptual ecological models were designed to draw connections for parts the whole system plus separate models for components of the system:

- **Lake Okeechobee**
- **Northern Estuaries (Caloosahatchee, St. Lucie, Loxahatchee, Lake Worth)**
- **Southern Estuaries (Biscayne Bay, Florida Bay, Everglades Mangroves)**
- **Big Cypress Region,**
- **Everglades Ridge and Slough**
- **Marl prairies**

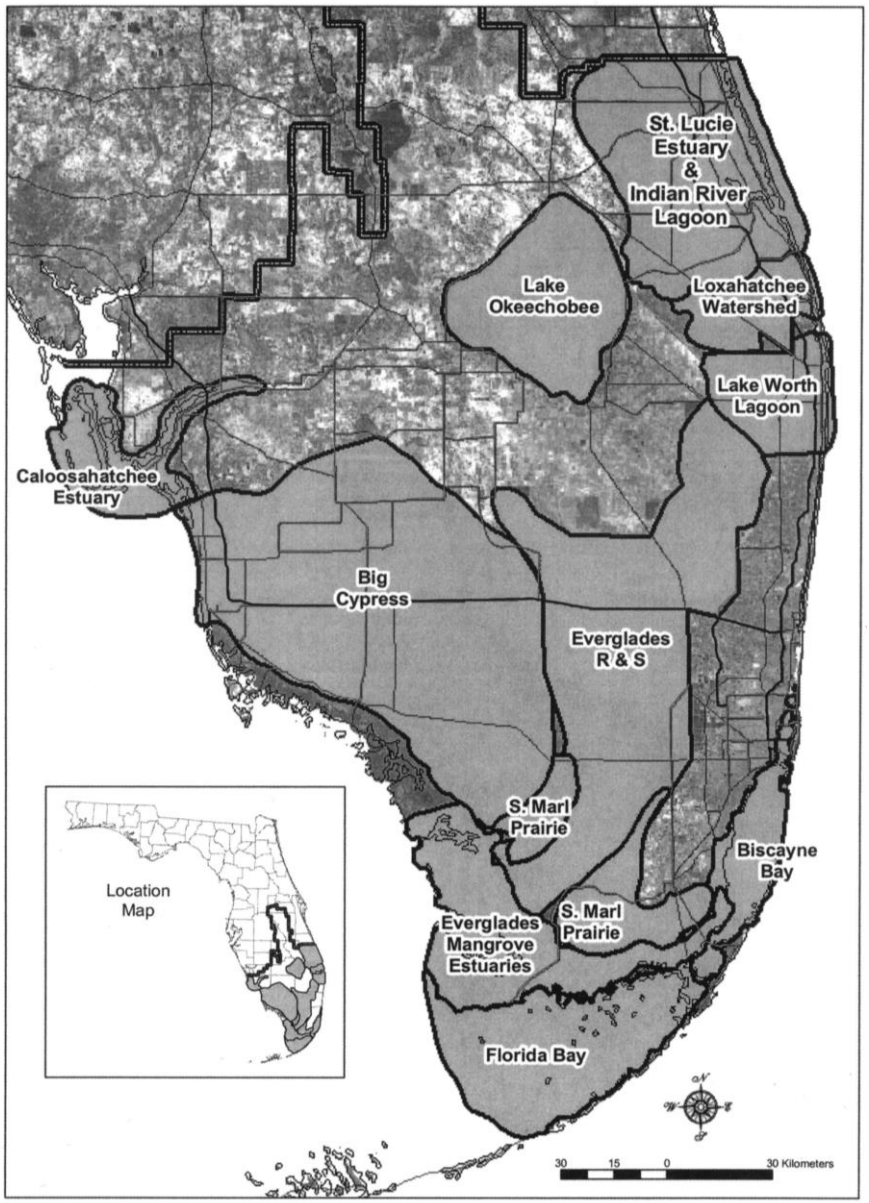
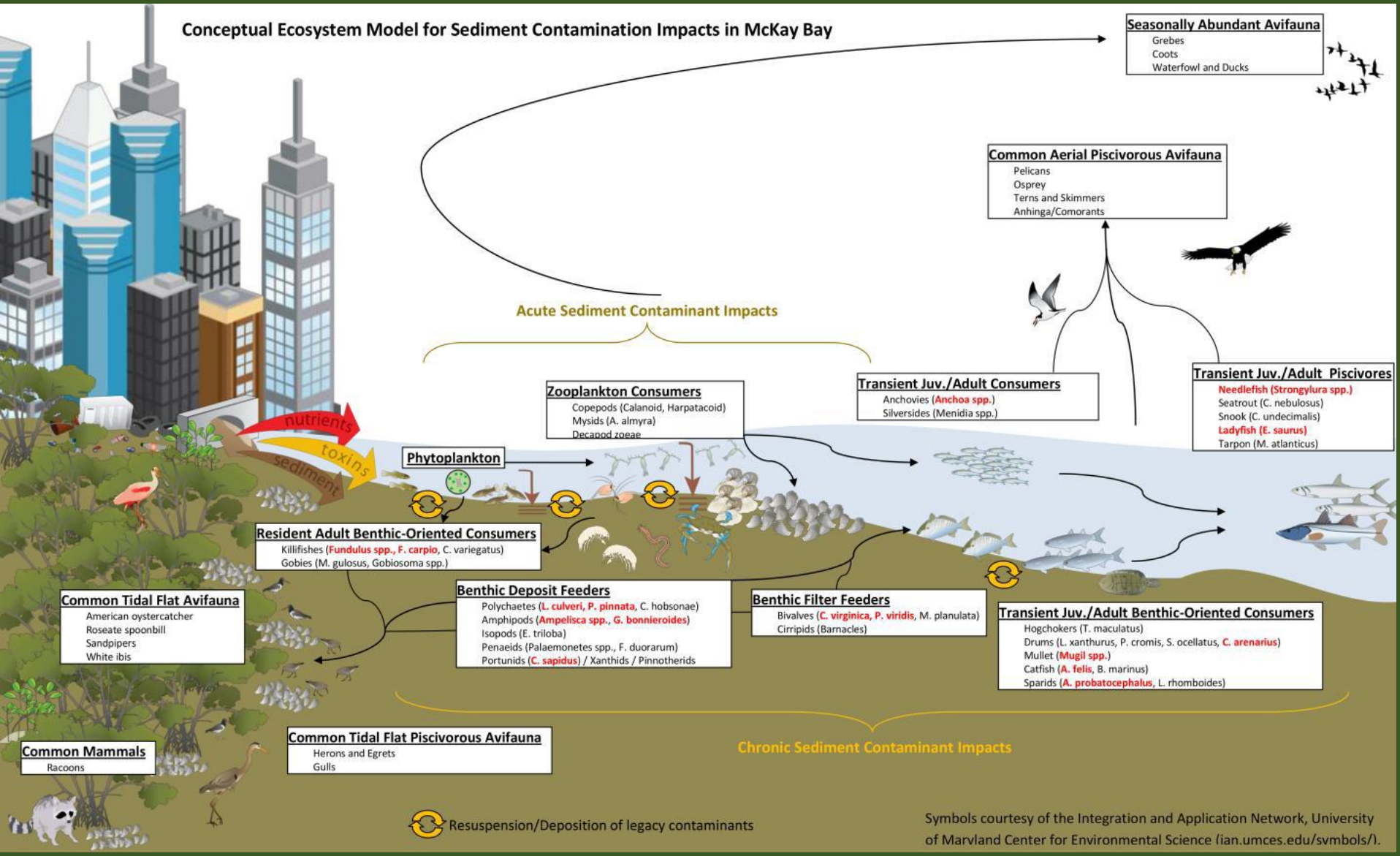


Figure 1. Map of South Florida with conceptual ecological model boundaries.

Within the models are subcomponents:

Hypothesis Clusters ask what are possible outcomes of specific drivers, such as changes in management practices or changes related to large drivers such as climate change.

Performance Measures set goals for specific attributes as a means of tracking change



Morrison and Sherwood. 2014. Final Report for the Project entitled "Determining Biotic Effects of Sediment Contaminants in McKay Bay. #1802.12.029643"

Tampa Bay Nitrogen Management Strategy: A simple conceptual model example

TN Load

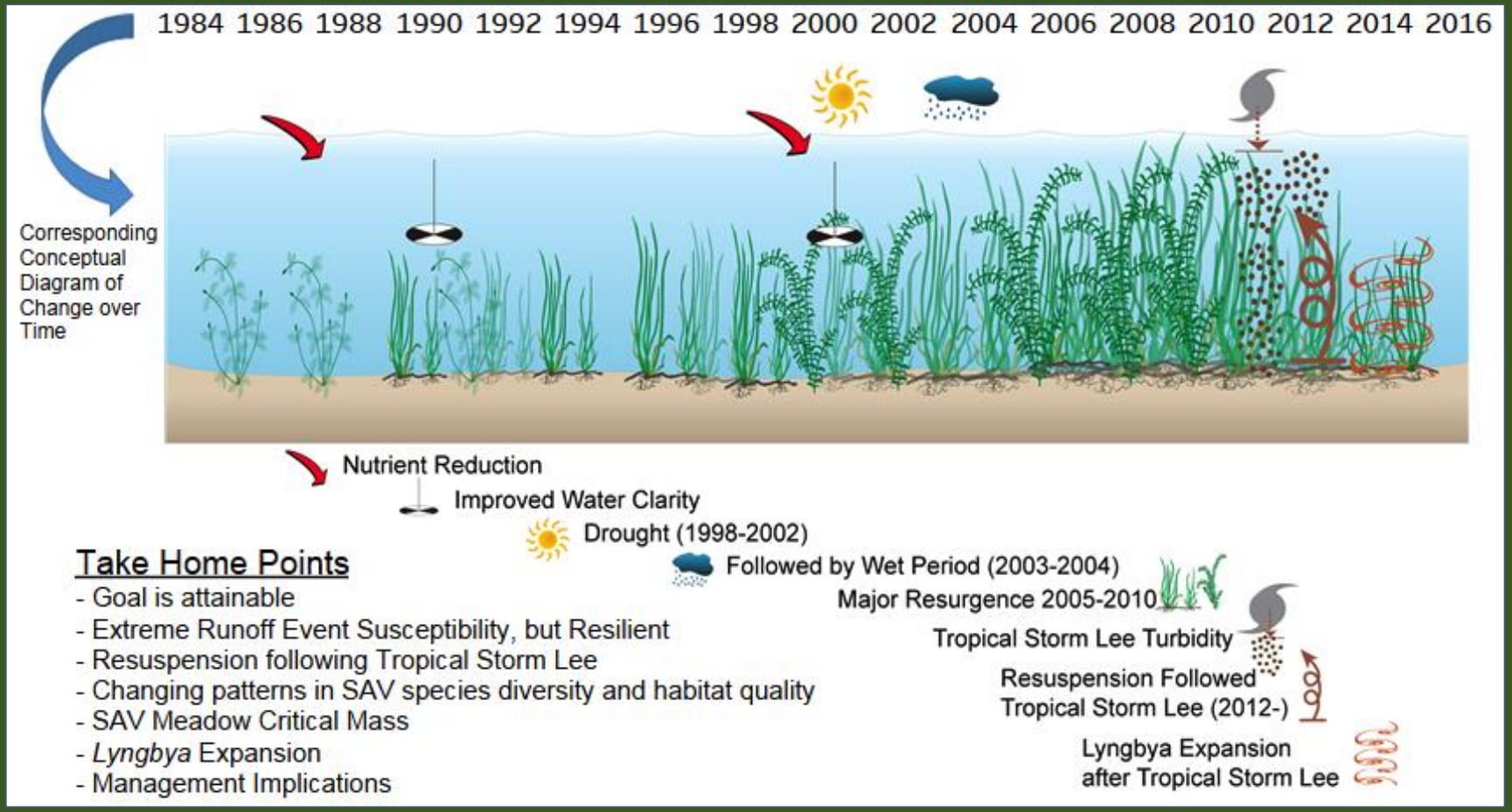
Chlorophyll

Light Attenuation

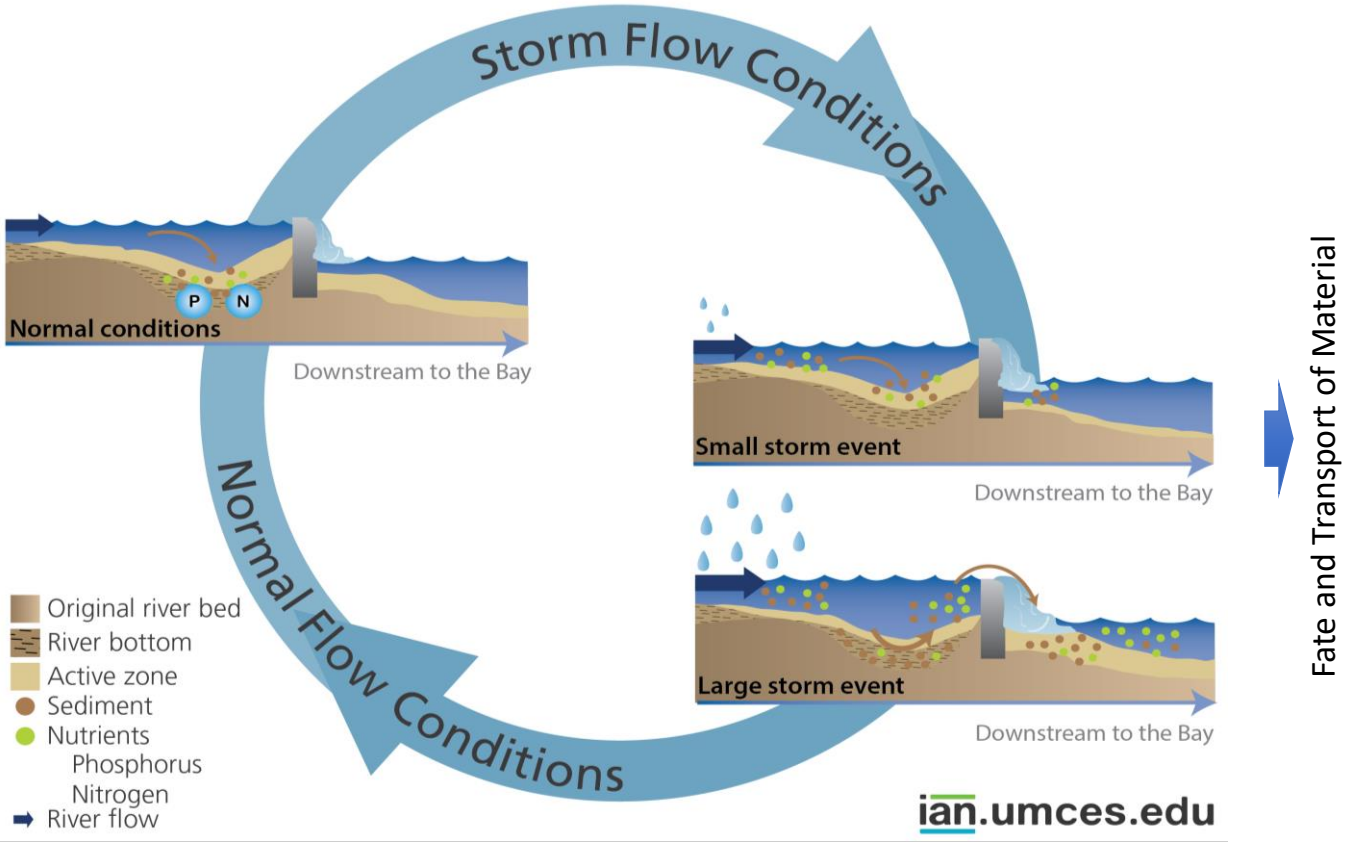
Seagrass Light Requirement

Seagrass Growth & Reproduction

You Can Use Conceptual Models to Also Help Tell a Story About Your Ecosystem



Characteristic of Reservoirs



Dynamic equilibrium is when, over many years, the input is equal to the output

Conceptual Ecological Models can sometimes be used to dispel myths/conceptions