MARES

Marine and Estuarine Goal Setting for South Florida

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Sept 2009-Sept 2012

www.sofla-mares.org

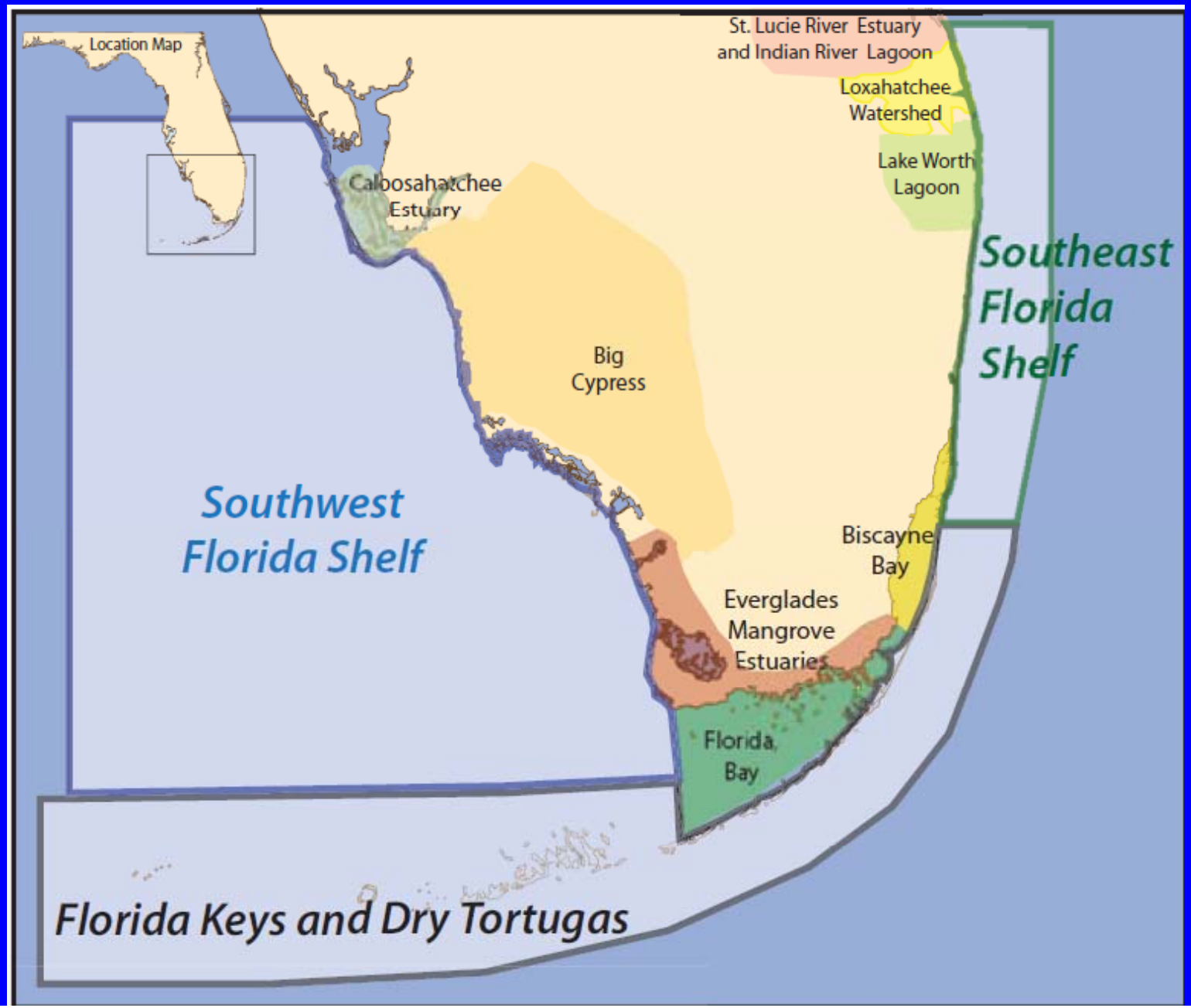
WHY MARES???

- Relatively mature scientific understanding of South Florida Coastal Marine Ecosystem (data rich)
  - Societal and Ecological Aspects
- Pre-existing interagency collaborations at every level of government (leverage opportunity)
- Tight relationship between the ecosystem condition & regional economy
- Ecosystem Management Legal Mandates

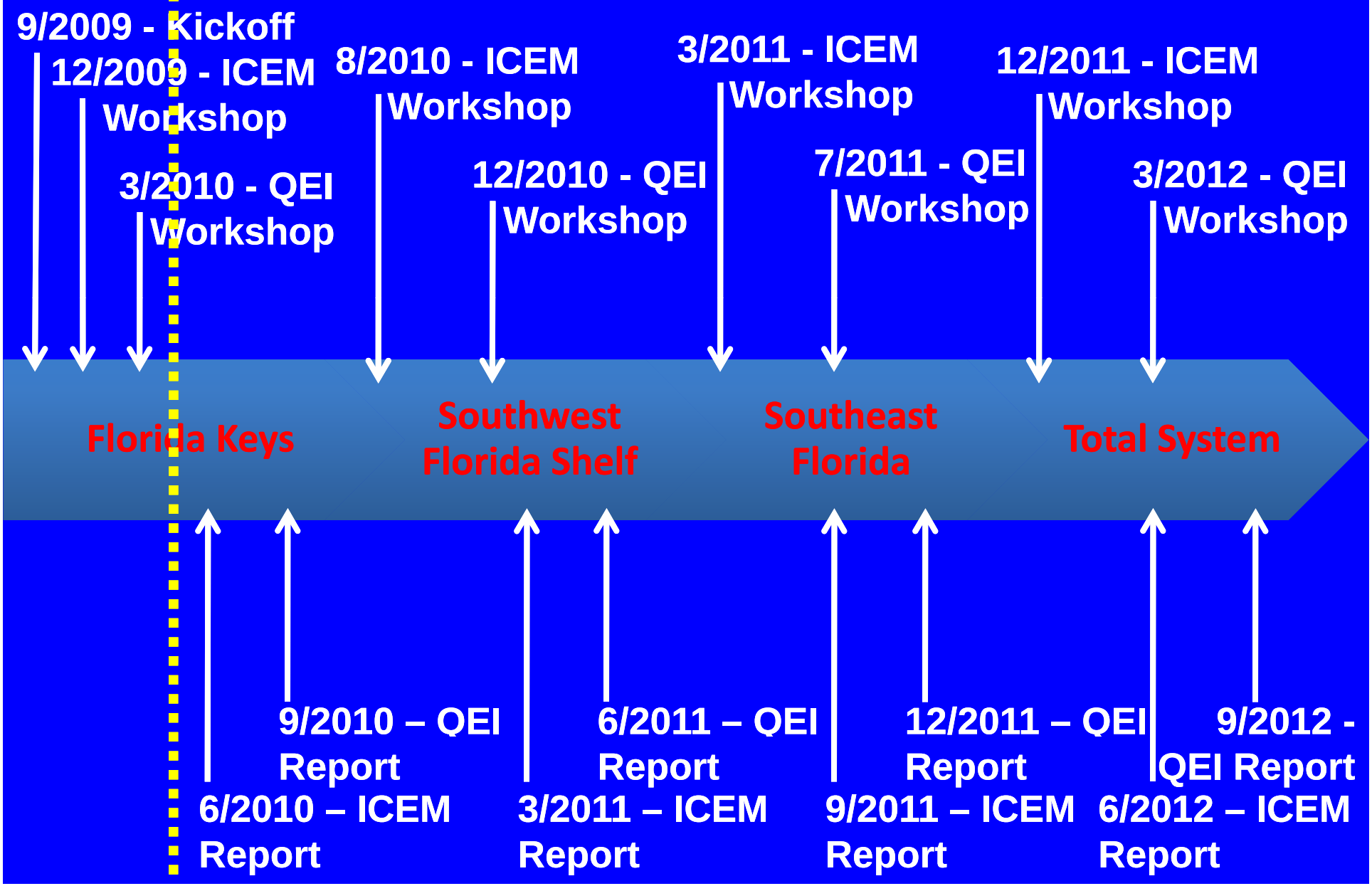
MARES GOAL

Reach a science-based consensus about the defining characteristics and fundamental regulating processes of a South Florida coastal marine ecosystem that is both sustainable and capable of providing the diverse ecological services upon which our society depends

MARES GEOGRAPHIC SCOPE



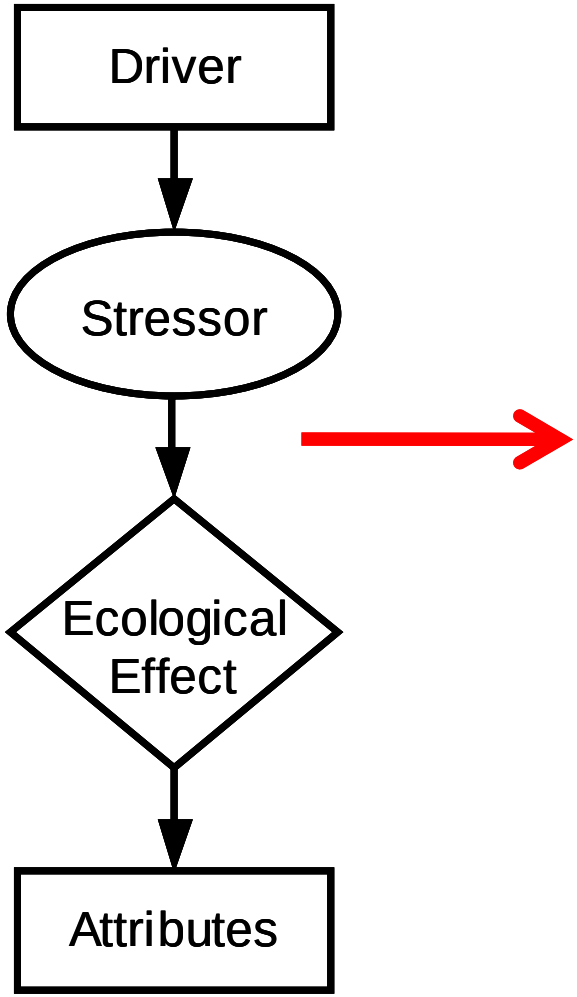
MARES TIMELINE



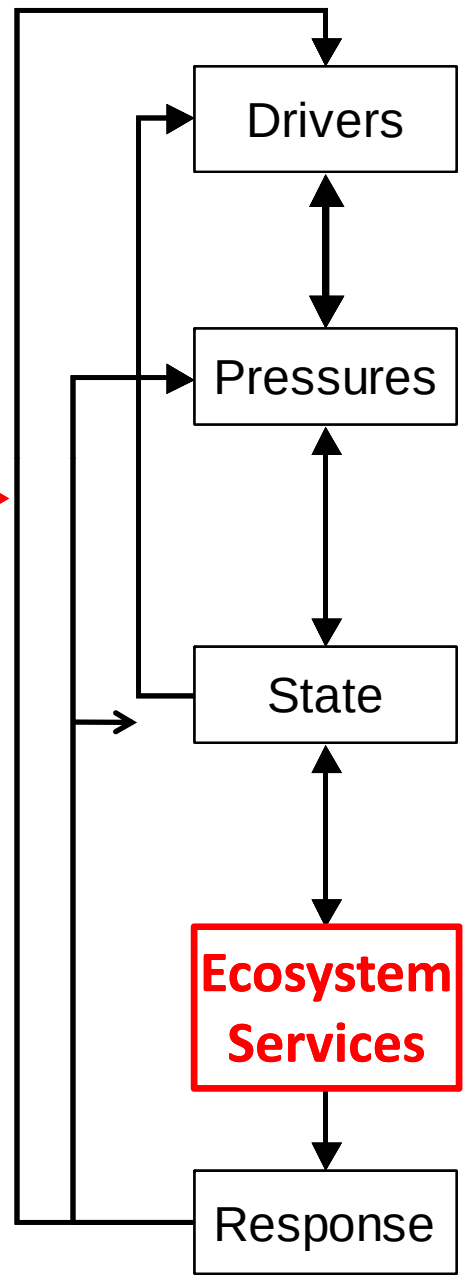
IMPROVEMENTS in MARES

1. Explicit Human Dimensions Science Inclusion (ICEM not CEM – HD and QEIs)
2. More Inclusive Process of Development through inclusion of NGO's, academics, govt.
3. Interaction with Management Community throughout process
4. Dedicated Resources! (not dependent upon volunteers)

Ogden et al. 2005



DPSIR Model



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Conceptual Ecological Models

Integrated Conceptual Ecosystem Models

HUMAN DIMENSIONS

- Frames the case for ecosystem preservation in terms decision-makers understand ($$$$)
- Establishes value of ecosystem services
- Permits cost-benefit analyses
- Makes tradeoffs explicit
- Focus on human-environment interface
  - management responses and ecosystem services

WHO IS MARES?

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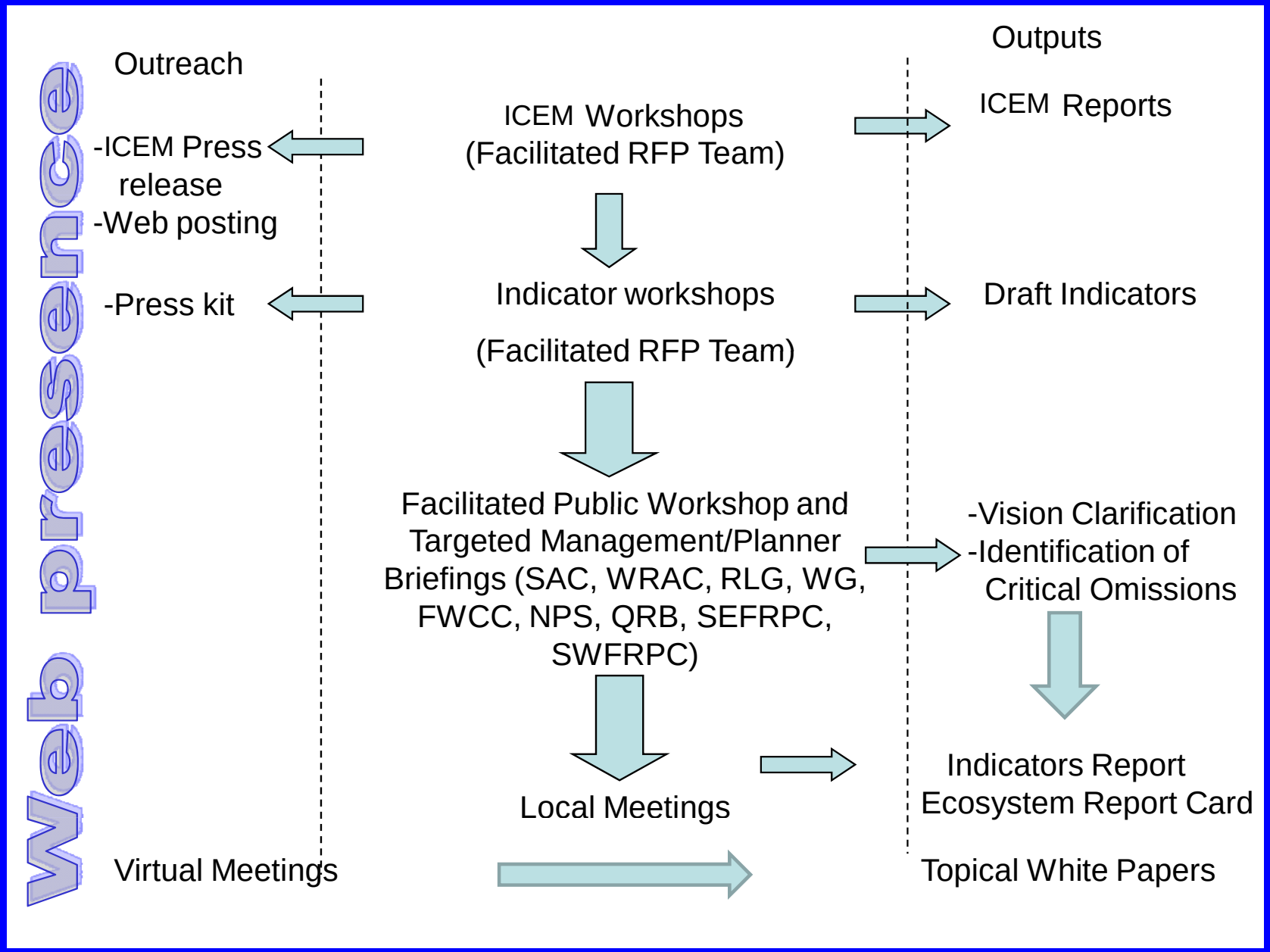
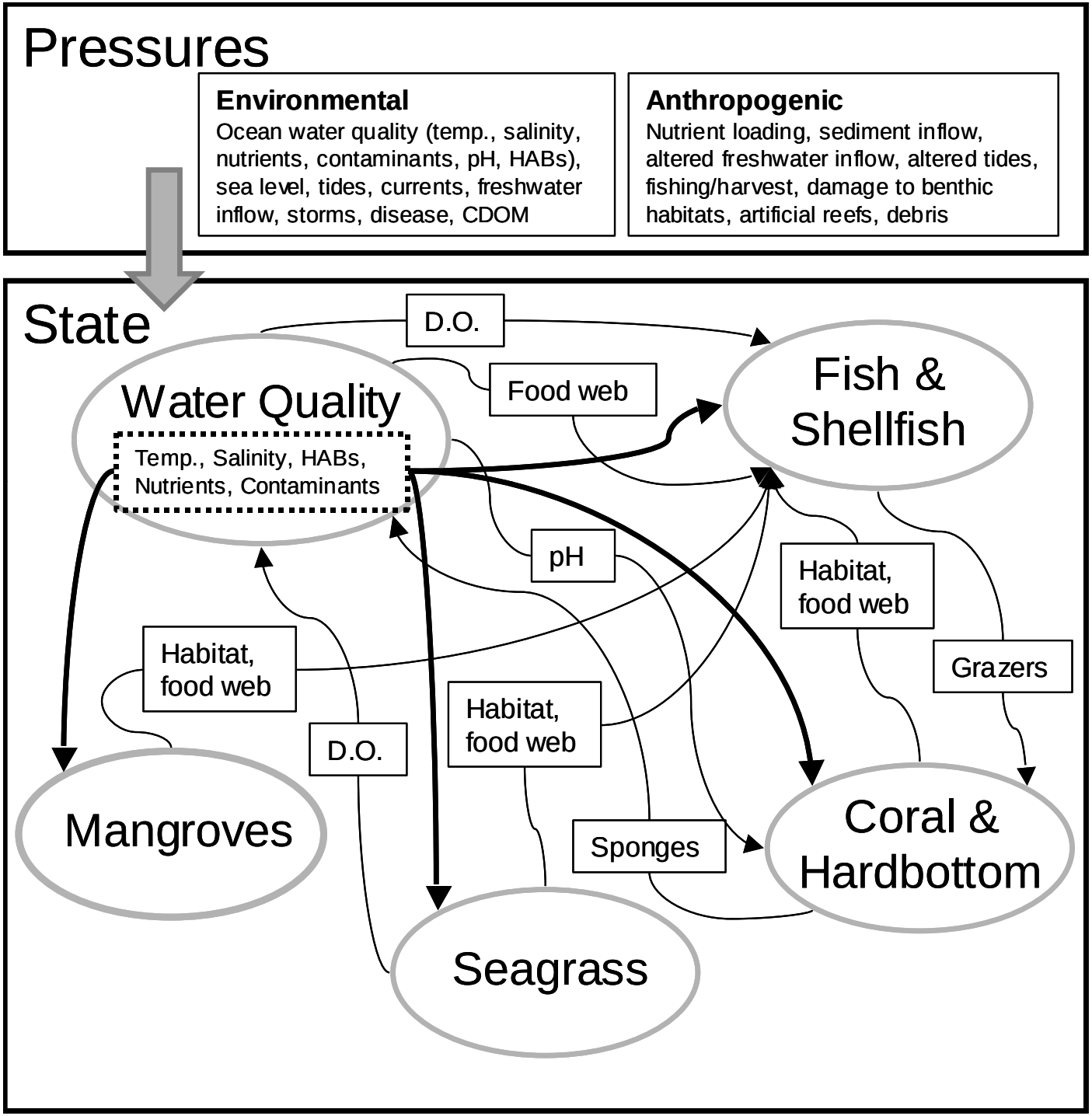
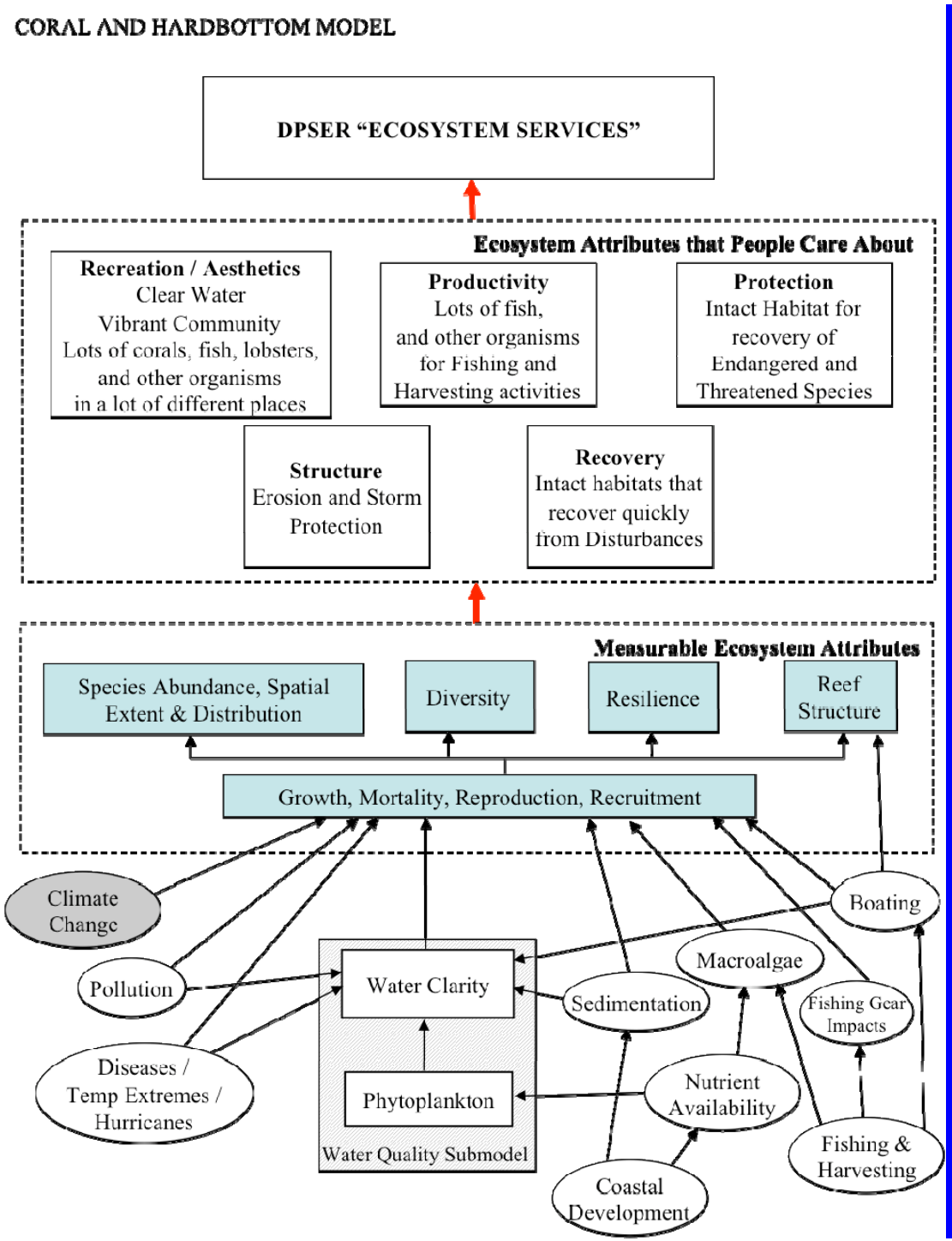
- **Project Management and Staff**
  - NOAA, NGOs, Academia, NPS, State Agencies, Private Industry
- **Workshop Participants – Workshop Leads**
  - >60 managers, natural scientists, social scientists
- **Public Meeting – Management Briefings**
  - Stakeholders, Interested Members of the public and standing regional planning, management and regulatory entities

MARES PROCESS



Relationships between State Sub-models





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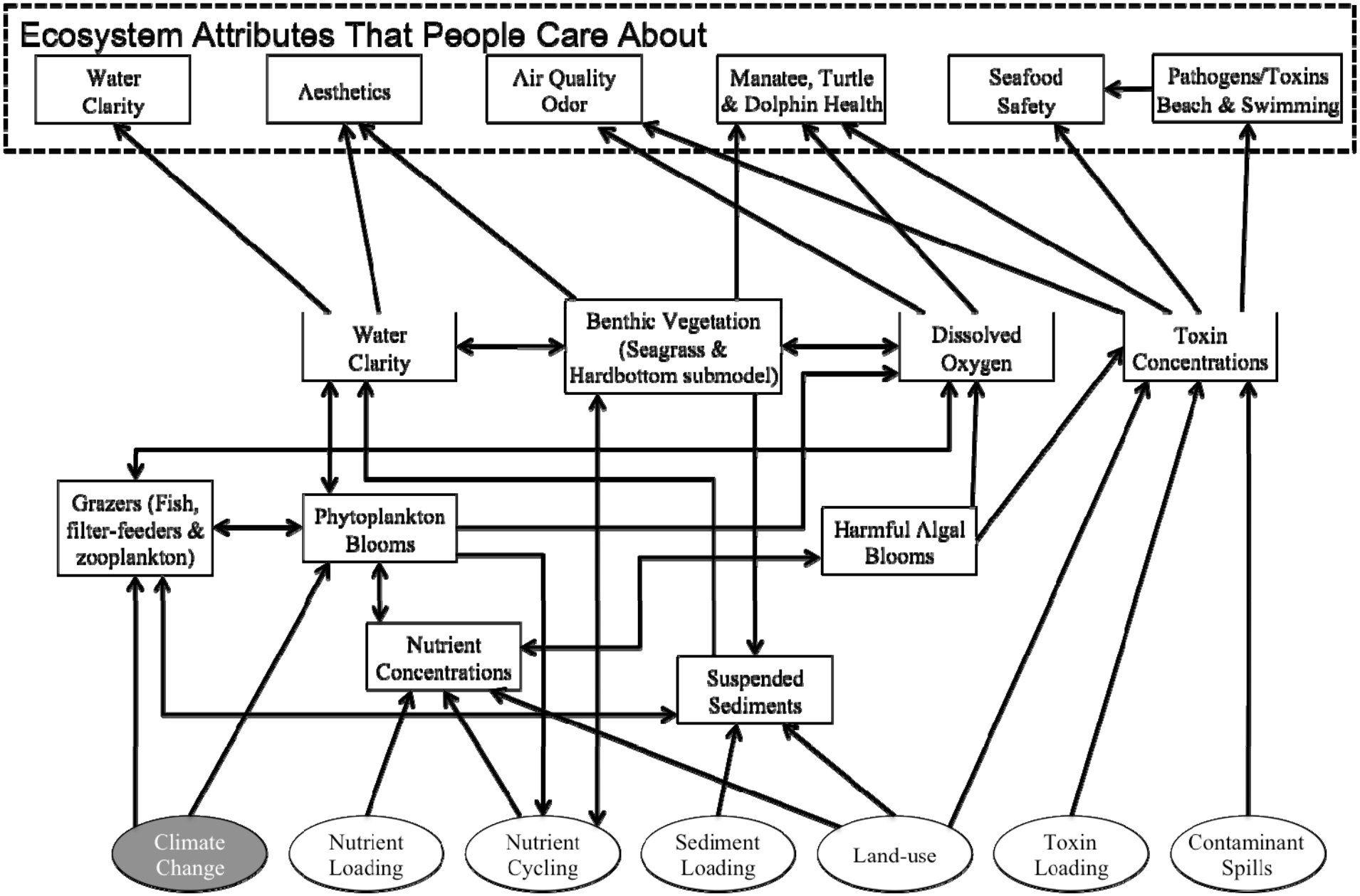
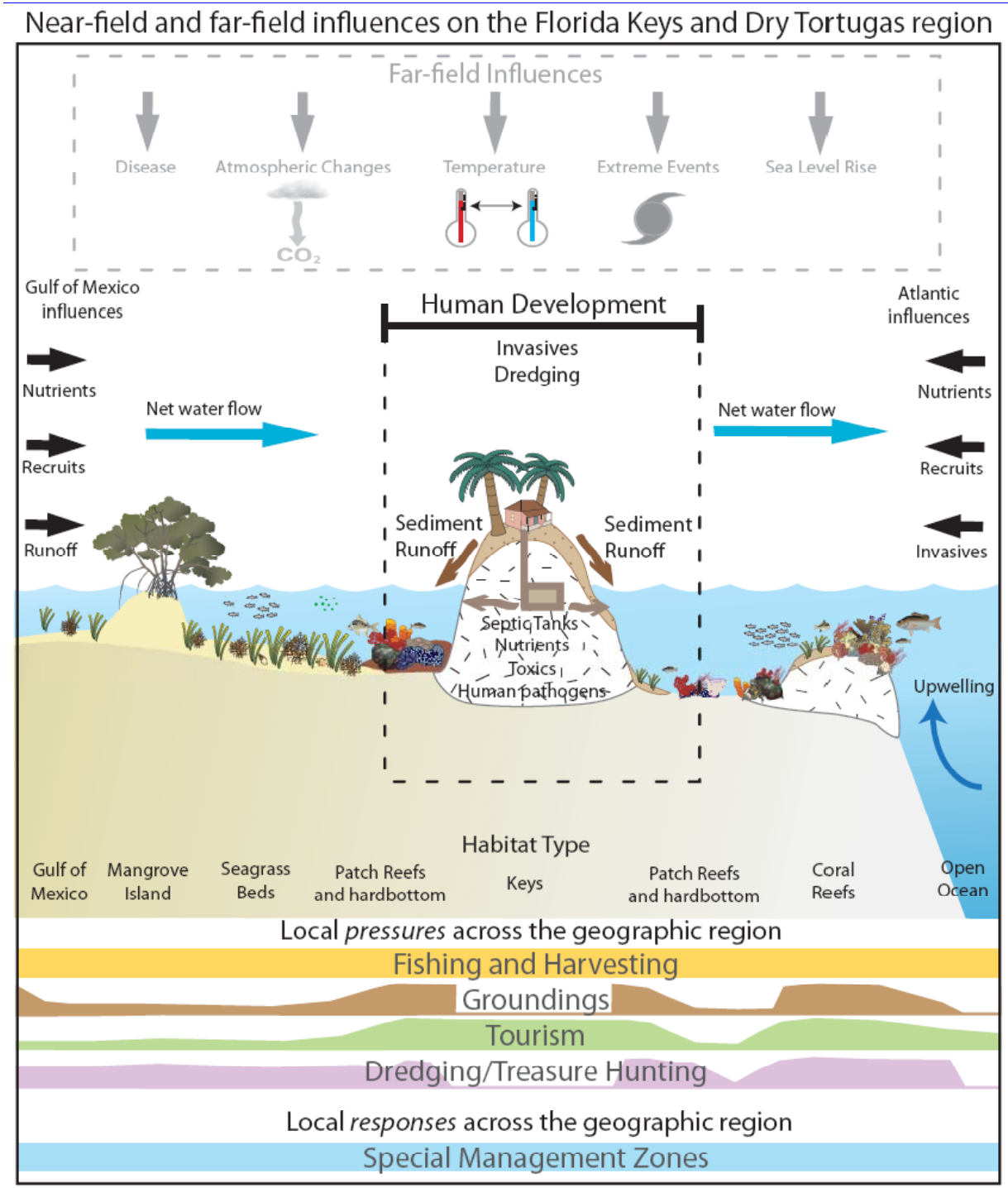
Florida Keys Coral Reef & Hardbottom Sub-model

Florida Keys Water Quality





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Geographic Distribution of Pressures

SOME QEI SELECTION CRITERIA

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1. Is the indicator feasible (Is there sufficient data or is it easily obtainable)?
2. Is the indicator sensitive to ecosystem drivers and does it affect ecosystem services?
3. Is the indicator interpretable in a “common” language?
4. Is the indicator scientifically defensible?
5. Can clear measurable targets be set?
6. Is the indicator integrative?
7. Does the suite of indicators cover the critical range of ecosystem “features” including processes, structures and actions?

ENDGAME 2012

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1. Scientific consensus as to ecosystem function and indicators of sustainability of essential services
2. A report card assessing ecosystem status including societal interactions and responses.
3. Indicators that are used by managers
4. Identification of key gaps in scientific understanding (natural and HD sciences)

DEFINITION OF SUCCESS

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- Incorporation of MARES products into regional planning and regional natural resource management decisions
- Convergence between agency goals and enhanced collaborative responses
- MARES makes a difference and is recognized to have made a difference – a model for NOAA IEA

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JOIN MARES MAILING LIST TO RECEIVE WORKSHOP/MTG ANNOUNCEMENTS

Email: pamela.fletcher@noaa.gov

See: www.sofla-mares.org

MARES is funded by: