What to Monitor

Gulf of Mexico Alliance

Nutrient Sources, Fate, & Transport Study Design Workshop

February 19-21, 2008

WHAT TO MONITOR

- Atmosphere
- Biomass
- Water column
- Sediment

WHAT TO MONITOR

- Water quality
- Sediment quality
- Food web
- Physical & meteorological
- Loading
- Phytoplankton

WATER QUALITY

- Salinity
- pH (alkalinity)
- DO (oxygen demand)
- Temp
- Clarity
- CDOM
- TOC

WATER QUALITY

- TN
- TP
- Silica

BIOLOGICAL

- Chl *a*
- Phytoplankton
- Zooplankton
- Nekton
- Seston
- Macroinverts

SEDIMENT

- Nutrients
- SOD
- Redox discontinuity
- % silt/clay
- TOC
- Phytopigments
- P:R
- Bioassay

FOOD WEB

- Isotopes C, N, S, O
- Vascular plants
- Algae
- Phytoplankton
- Zooplankton
- Nekton
- Macroinverts
- POM/DOM

METEOROLOGICAL

- Rainfall
- Irradiance
- Water leaving radiance
- Backscatter

PHYSICAL

- Wind
- Waves
- Bathymetry
- Flow

NUTRIENT LOADING

- Land use
- Hydrography
- River & stream gaging
- Nutrient exchange rates

PHYTOPLANKTON

- Taxonomy/HPLC
- Nutrient form