

Tidal Wetlands and Estuaries

Research Priorities

Overarching: accurate inventories, changes, and forecasting

- NWI-type inventory for Mexico and Canada; SAV maps for all of N. America
- Development of mechanistic models that link tidal wetland and estuarine biogeochemistry – extremely challenging at continental scale
- Predicting how changes in climate and land use will affect ability of tidal wetlands to accrete vertically and migrate laterally
- Determining fate of C lost from wetland erosion

- In situ and remote sensing observations that resolve fine temporal scales (tidal cycle and episodic events). Could be geostationary satellites, airborne missions, drones
- Remote sensing missions at spatial scales finer than existing satellites
- Synthesis of existing tidal wetland NPP measurements
- CaCO_3 production and dissolution in estuaries
- Measurements of C burial in tidal wetlands and estuaries
- Measurements of lateral exchange of C and Alk between tidal wetlands and estuaries, and estuaries and coastal ocean