Goal

Collaborate with an engaged community of scientists and stakeholders to promote blue carbon in peat wetland conservation project that is consistent with the long-term sustainability of a healthy and functional ecosystem, factoring in climate resiliency.

Objectives

- *Synthesize land-scape level information needed for the development of blue carbon project in Kenai Peninsula*
- *Pilot monitoring methods*
- *Test the feasibility assessments*
- *Foster stewardship, conservation, and best management practices of peat wetlands*

Inputs/Resources	Outputs		Outcomes	
	Activities	*Outputs*	*Short*	*Medium*
Mapping: Current geospatial data layers available include NRCS soil classification, wetland classification, some well/core data from HSWCD, USFWS (Ed Berg), and NRCS. **Historical Trends:** Majority of KL peatlands are in near reference condition. **Monitoring & Modeling:** **Partnerships:** US FWS Kachemak Heritage Land Trust Leonardo DeCaprio Foundation Smithsonian Institute Sylvestrum Associates Inc. Cook Inlet Region Inc. Ninilchik Tribal Association Homer Soil and Water Conservation District Kenai Peninsula Borough	**Key activities include:** - Develop mapping tools and models for key wetland types - Field research on peat wetland carbon stocks - Monitor environmental conditions, including sequestration rates - Develop partnerships for funding - Identify opportunities and potential barriers to involvement - Identify best practices for structuring carbon finance - Conduct legal and financial feasibility assessment	**Key outputs include:** - Protocols for stock assessments (depth, content, etc.) - Protocols for sequestration rates - Pilot studies for proof of concepts - Business model approaches	- Synthesized information linking habitat layers to a habitat map. - Improved understanding of the storage and sequestration potential for peat wetlands. - Feasibility assessment of blue carbon project. - Decision-support tools to inform the management of peat wetlands - Identification of key research and management gaps to guide future work in Kenai Lowlands. - Enhanced environmental monitoring programs to include key variables, including carbon cycling. - Involvement of stakeholders in the consideration of future management strategies and next steps toward restoration planning.	- Framework that furthers the development and implementation of restoration tools to support management decisions for climate mitigation projects in coastal Alaska. - Application of tools to support ecosystem-based management of other lands and habitat of Kenai Lowlands. - Supplementing the NERR Watershed Research Program to incorporate more applied research and monitoring. - Increased community stewardship for salmon and watershed habitats. **Outcome Metrics** - Greater regional resiliency through implementation of climate mitigation efforts that results in sustainable productivity of watersheds.