

## Summary Report

### *Current Coastal Change Projects and Priority Information Needs in Western Alaska*

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#### **PROJECT GOALS:**

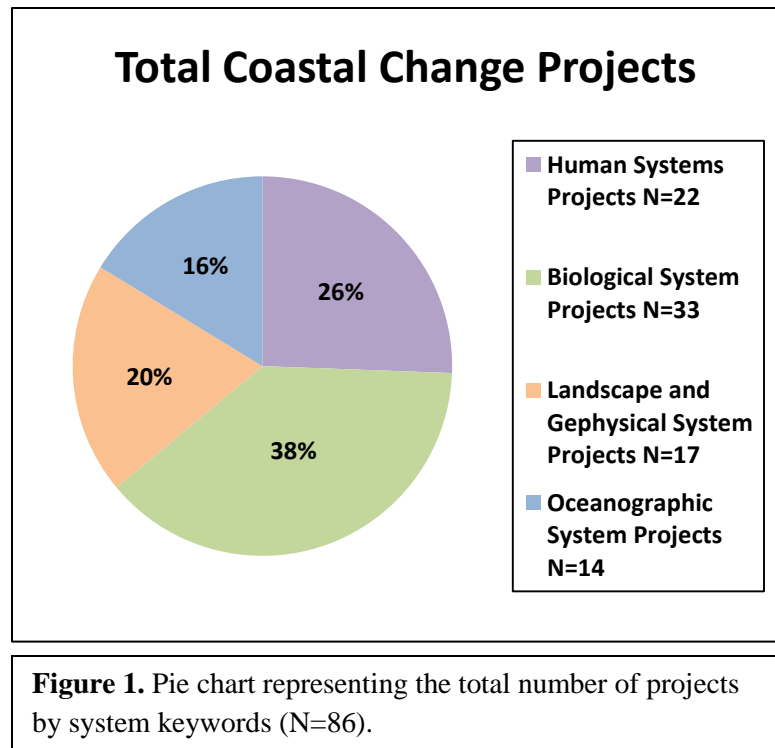
Research and management studies on coastal change in Western Alaska has increased rapidly in recent years, making it challenging to track existing projects, understand their cumulative insights, gauge remaining information gaps, and prioritize future studies. The goal of this effort is to identify current coastal research and management projects that are taking place in Western Alaska and to synthesize information into a report that documents the ‘project landscape’ for communities facing change, decision-makers navigating change, researchers pursuing projects, as well as funding agencies trying to prioritize where to allocate resources. This summary report documents our key findings of current project efforts in Western Alaska.

#### **METHODS:**

To identify coastal change projects, we conducted an extensive Internet search utilizing existing databases and online resources. We contacted 130 stakeholders from a diverse range of university, state, federal, native and local institutions to review and comment on additional projects. We summarized the list of projects into key disciplines and topic areas. We compared our list of current coastal projects to a list of key recommended needs identified from a 2012 Coastal Hazards Workshop to identify whether those needs are being met and where research gaps still exist. Additionally, we created a [Mapbox Website](#) to show the distribution of projects across the Western Alaska landscape.

#### **KEY FINDINGS:**

The majority of current coastal change projects in Western Alaska focus on biological systems (e.g. fish, bird, habitat and marine mammal species, Fig.1). Human system projects (subsistence, local knowledge and coastal change adaptation) comprised 26% of projects occurring in the region. Landscape/Geophysical system projects (e.g. projects related to geophysical processes along the coastline or nearshore stretches of land) comprised 20% of the current efforts. And oceanographic system projects (projects related to ocean currents, waves, biochemical fluxes) had the fewest number of current projects (16%). Only 32% of the projects directly addressed



the “recommended needs” identified in the 2012 [Coastal Hazards Workshop](#), though it is important to recognize that most on-going projects were certainly designed to meet other objectives than those defined in the Coastal Hazards Workshop.

Additionally, the distribution of project sites suggests that the majority of coastal projects are occurring in the northern stretches of Western Alaska (Fig. 2). Most of the sites in this region were focused on human system projects. This result may be due to the concentration of communities between Norton and Kotzebue Sound (e.g. Kotzebue, Wales, Shishmaref, Nome). The majority of project sites within the southern region were biological system projects. These regions encompass several national parks and wildlife refuges (e.g. Izembek National Wildlife Refuge, Katmai National Park, Yukon Delta National Wildlife Refuge), which is likely affecting the concentration of biological system projects.



**Figure 2:** Screenshot of the Western Alaska LCC coastal project Mapbox site.

### **SYNTHESIS:**

This project provides a synthesis of current research and management studies in Western Alaska that will help to:

- (1) foster better coordination about coastal change in Western Alaska
- (2) help practitioners and scholars learn from one another
- (3) identify information gaps that need to be addressed

The online database is a resource that allows communities, researchers, and managers to better understand and coordinate around current project efforts. It is a tool to promote learning about projects and communities, both related to outcomes as well as to the methods that have been employed. In several topical areas, we have identified similar projects and ones that could be complementary to one another.

### **RESOURCES:**

Current Coastal Change Projects and Priority Information Needs in Western Alaska [Report and Database](#)

[Mapbox Link](#)

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