



GIS for Environmental Monitoring



The Ivanof Bay Climate Change Monitoring program was a four-year, multi-stage planning project to document Indigenous knowledge and notable ecological changes within Elders' lifetimes. Project staff monitored and documented changes in weather patterns, geography (e.g., land/mud slides, flood areas, changes in creek/river routes, beach banks) and natural resources (e.g., fish, game, vegetation, water sources), then analyzed relationships between weather patterns and impacts to geography and natural resource changes.

Ivanof Bay used funding from the U.S. Environmental Protection Agency (EPA) Tribal General Assistance Program to purchase a camera that embeds GPS coordinates into photos, obtained Geographic Information System (GIS) training through the Bureau of Indian Affairs, and now uses the photos to document and track coastline changes (erosion) and ecological hazard areas. Staff included attention to marine debris and potential contaminants from the Fukushima reactor meltdown in their monitoring activities.

Tribal environmental staff completed an Abbreviated Vulnerability Assessment, incorporated climate change information into their EPA Long Range Environmental Plan, and completed an EPA Tribal Environmental Plan. Staff also worked with local and state governments to provide input on the management regulations for commercial and subsistence use of fish and game in Ivanof Bay.

Case Study-Related Materials

Related Documents: No related documents

