



FEMA

Best practices

Disaster Mitigation Working in Alaska

Students Contribute to Mitigation Planning



Hazard Mitigation Best Practices stories are written to shine a bright light on actions that effectively reduce or eliminate future damage to people, property, and the environment from natural or man-made disasters. This story is about creating and sustaining the ultimate mitigation program -- enhancing the potential of young Alaskans, through "place-based" education, to allow them to build strong, safe and self-reliant communities



Photo By Christopher Smith FEMA

Steve Kenrick—Dean of students in the Village of Akiachak

AKIACHAK, AK — Steve Kenrick moved to Alaska when he was 55 years old to pursue a new career in education after leaving his previous career in the wood products industry. After receiving his teaching certificate, he began working in rural Native villages and has followed that path for the past 10 years. In that period, Kenrick has worked in a number of the villages in the Yukon-Kuskokwim Delta area, with much of his time spent in the small community of Sheldon's Point, or Nunam Iqua, roughly translated as Land's End in the language of the Yupik Natives.

It was in Nunam Iqua that Kenrick first became interested in the idea of mitigation, and the role students could play in helping make their villages

stronger, safer and more self-reliant. Nunam Iqua sits at the mouth of the Yukon River, on the shore of the Bering Sea. Following a particularly turbulent Fall storm in 2004, the village was inundated by several feet of water. While the majority of homes in the village were elevated enough to stay dry, everything on the ground was swept away by the rushing water. This included the village's primary means of access.

"There are no roads in Nunam Iqua," said Kenrick. "The village is connected by boardwalks, and they all floated away. We had to use boats to get everywhere, and people flying in to the airport would tell us the village looked like ships out to sea; lights shining in the middle of all that water."

Prior to the 2004 flood, Kenrick had involved his students (grades nine to twelve) in an erosion study of the village's decaying riverbanks. The data collected by the students helped secure a grant for an erosion prevention project, awarded by the State of Alaska. Following the 2004 flood, Nunam's City Manager sought to apply for grant assistance from the Federal Emergency Management Agency (FEMA). To receive grant monies from FEMA, a community is required to have a mitigation plan in place. The City Manager requested that Kenrick once again work with his students to provide data necessary for the creation of the plan. The students, under Kenrick's supervision, identified and mapped every structure in the village, and then compiled the data for the City Manager to use.

Following the success of their data collection efforts, Kenrick proposed a new challenge to his students. The village council was in the process of writing a comprehensive 20-year plan for projects to be completed during that period. Kenrick encouraged his students to conceive and design several projects to be added to the village's 20-year plan. Their suggestions included creation of a hybrid wind/diesel energy system; construction of alternative, affordable and durable, disaster resistant homes; and a design for a boat harbor to keep local fishing craft safe during periods of high water. All the projects were accepted and approved by the village council and added to the 20-year plan.

Kenrick realized that his students had great potential to make further contributions to research and implementation of projects, and to create a brighter future for their communities. State and federally funded studies and projects conducted in isolated villages typically require that people travel by boat or plane to reach these locations. They either travel back and forth or remain in the villages for weeks or months at a time to capture the information they need. Kenrick argues that a large portion of the data collection and work could be accomplished by residents of the villages themselves, with enormous cost savings.

"That's one of the things I'm pushing out here," said Kenrick. "Why pay someone to come out to the villages to do these studies? These are remote locations, with minimal provisions for guests. Why can't the students do this kind of work? They live in these places year round. Who better to collect data on an area than the people who actually live there? All they would need is training on how to collect the data."

The State of Alaska has gone to great expense to develop the schools in the Native villages. Almost all of them have been built with modern computer labs, science labs and fully equipped technical shops. In Kenrick's opinion, these schools provide the perfect environment for forging links between youth, education and building strong communities.

"I think that these schools provide everything we need to do this," said Kenrick. "We've got the computers, we've got the software, and we've got the technical people to help the students. I believe we could write reports and perform studies as good or better than a lot of the professional level work being done out there right now. And it would be relevant to the kids. They could see what they're doing and that their work actually means something."

Over the years, Kenrick has involved his students in a number of research projects, from conducting moose count reports to running a weather station

and broadcasting their daily forecasts over VHF band radio to surrounding communities. Data collected by Kenrick's students has proved useful not only for their own villages, but has also been utilized by such agencies as the State of Alaska Department of Fish and Game and the Federal Aviation Administration (FAA).

Kenrick has recently taken a position as the Dean of Students in the village of Akiachak, and he intends to bring his program to his new post. He also hopes to expand it, first to the Yupiit school district, of which Akiachak is a part, and then, eventually to the entire State of Alaska. The goal is to incorporate what Kenrick refers to as a "place-based" education in the village schools, not only to provide this relatively undiscovered source of data collection and research to state, private and federal organizations, but to involve his students in something he feels will have a long-term impact on their communities, but more importantly, on themselves.

"Why are a lot of these kids dropping out of school?" asked Kenrick. "Because they're bored. They're not involved with anything relevant to them or where they live. A lot of these students are never going to leave their villages. They want to stay there. Some of the kids I've worked with in the past are now getting involved in their communities that probably wouldn't have before. They've found that connection."



Modern facilities in Akiachak classroom

Photo By Christopher Smith FEMA