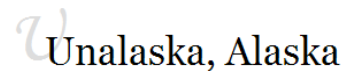


City of Unalaska Preserves Past and Plans for Future with GIS

City of Unalaska, Alaska



Made famous by the Discovery Channel's "Deadliest Catch" television series, the City of Unalaska, Alaska boasts a strategic position in the North Pacific that is often referred to as Dutch Harbor. The Port of Dutch Harbor's crabbing fleet and fishing industry are the focus of the show, which documents the events aboard fishing boats in the Bering Sea during the Alaskan king crab season.



The small yet bustling city is home to a friendly, hard-working community that embraces new technology and looks for ways to be efficient and effective in the jobs they do and the lives they lead. However, with the added pressure of thousands of seasonal fishermen and processing workers descending from all over the world to this small fishing port, Unalaska has unique technological needs and priorities. Developing a GIS strategic plan is one of the ways Unalaska is assessing those needs and making advancements.

"Before the plan, we didn't have any type of integrated GIS system at all," said Nancy Peterson, Director of Public Works at the City of Unalaska. "Different departments had different databases that they would update, but we wanted to be able to update the same maps with the same information and share it quickly."

Before working for the City of Unalaska, Peterson was part of the steering committee that put a GIS in place at another Alaskan city. When arriving in Unalaska, she quickly identified the need for a GIS and worked with other departments to propose the idea of implementing an enterprise-wide system to better share information.

"We decided to invest in a strategic plan because we needed to identify what we currently have and what it would take for us to implement an enterprise-wide system. It turns out that the hurdle we needed to overcome was much smaller than anticipated." Peterson said it was very exciting to see how close they already were to being able to share information and document infrastructure effectively.

To develop a GIS strategic plan and begin the process of implementing an effective GIS, the City turned to Geographic Technologies Group (GTG). During the planning process, the City Council, department directors, key staff, as well as the local radio/TV station, KUCB, were presented with the future of GIS for the City. They were shown a three-dimensional fly-through of the City, which enabled everyone to visualize what to expect from the technology and understand the critical nature of implementing a GIS. The GIS software used to model the terrain, landscape, and the built-up area will afford the City of Unalaska the opportunity to view, query and analyze their attribute data in three-dimension. Additional information can be hot linked to the digital terrain model.



"A lot of employees are realizing the possibilities and potential of how it will benefit them," said Peterson. "City Council members are also very supportive of moving forward. They realize an improved system will allow us to do a better job of sharing information and provide good data for the council to make effective decisions year-round."

After on-site meetings, interviews, and round-table discussions, it quickly became apparent that the emphasis on building an enterprise GIS solution would focus on

infrastructure and asset management, as well as emergency preparedness, response, and recovery operations.



Foremost on Peterson's mind was infrastructure management. "We need to know for sure what we have under the ground and be able to develop better maintenance plans and documentation on costs," said Peterson.

"We rely heavily on a number of long-term employees that have been here for about 20 years. They have so much knowledge of the utilities and infrastructure, like when it was built, what the pipes look like, etc. Those employees are eventually going to retire, and

we want to make sure we have a system that captures all of that information and is readily available for use in the future."

Having such information documented and available for use will also assist the City during natural disasters. Their location undoubtedly contributes to the potential risks. "We certainly live in a region of volcanoes, and we have a variety of earthquakes and other things that happen in the ocean around us," stated Peterson. "Being 800 miles southwest of Anchorage in an isolated community means it takes awhile for help to get to us. When we can be self-sufficient and create good plans, the benefits to the community are immeasurable."

Not only can GIS be useful in planning for natural disasters, but it is also a powerful resource in analyzing manmade disasters. On December 8, 2004, the City of Unalaska witnessed the worst oil spill in more than a decade. The Malaysian freighter Selendang Ayu went aground and broke in half at Skan Bay off Unalaska Island. 336,000 gallons of oil and 66,000 tons of soybeans spilled into the water and onto the shore of the island. Hazard mitigation for situations such as this requires a comprehensive understanding of the natural and manmade environment.

The City of Unalaska understood this need and called upon GTG to lead the way. Peterson said that working with GTG has been nothing less than a positive experience. "We knew we had to get a third party to identify needs so we wouldn't miss anything. GTG comes with a lot of knowledge, and we've been very pleased with the work they did with the strategic plan and needs assessment. They really listened to us to help design a system that meets our needs."



As they are taking action to meet those needs, the City has come to realize that having a plan to guide GIS initiatives is a critical piece to the puzzle. As other communities are searching for the missing pieces, Unalaska will serve as a model for success. GIS forms a link between scattered pieces of information and is certain to improve efficiency, reduce costs, and save time and money for many communities as it's doing in Unalaska.

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