

Naukati FLUPSY

The community of Naukati on Prince of Wales Island needed a new revenue source to maintain community infrastructure. With the assistance of a university marine biologist, the director of the Alaska Shellfish Growers Association, state and federal grants, and volunteer labor, they developed and operate a FLUPSY (Floating Upweller System) to grow commercial oyster seed. The enterprise buys seed from the Seward hatchery, grows it into spat for two months, then sells the spat to oyster farmers across the state. The FLUPSY earns the Naukati West Homeowner's Association \$20,000 a year.

Community

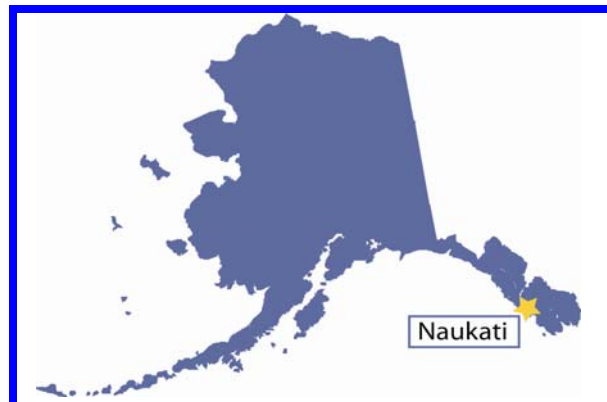
Naukati is located on the west coast of Prince of Wales Island in southeast Alaska. The island is reached only by boat or plane. It has a population of 173 and was originally a logging camp. There is no longer any logging, and today most employment comes from the new school and seasonal work, such as lodging for summer visitors.

Located 50 miles by road from Craig, the nearest larger settlement, Naukati supports a small convenience and grocery store and a fuel station that is the hub of the community, as well as a laundromat, guest cabins, liquor store, and an oyster rearing facility. Naukati is not an organized municipality, but has a homeowner's association.

The community of Naukati lost its revenue share and road maintenance funding from the State of Alaska in 2003, when all revenue sharing to Alaska communities was eliminated. This funding amounted to \$28,000, which comprised the entire annual operating budget for the town. These cuts confronted the community with the challenge of how to maintain their town's infrastructure.

Business History

In response to the state cuts, the citizens of Naukati began looking for an enterprise that would sustain the community in the long-term. They identified two options: going back



Naukati, Alaska

Population:	173
Major Employers:	School and small businesses
Location:	West coast of Prince of Wales Island
Ethnicity:	87% Caucasian
Median Income:	\$27,500

to the community's traditional base of timber products or looking to the sea. With timber on a downturn, they chose the latter course of action. According to Art King, who is on the Board of Directors of the Naukati West Homeowner's Association, "We were just loggers here, and we wanted to change our economy."

At the same time, two individuals on Prince of Wales Island were working to expand oyster farming in Alaska: Ray RaLonde, a fisheries biologist with the University of Alaska Fairbanks Marine Advisory Program (SeaGrant), and Roger Painter, an oyster farmer from the Juneau area. They helped Naukati to secure a \$65,000 state grant towards building a FLUPSY in their community.

A "FLUPSY" or "Floating Upweller System" is used to grow oyster seed from which commercial oysters can be grown. As small as grains of sand, the seeds grow in the upweller to the next size, called "spat". When the spat have grown to 20-25 millimeters across, they are sturdy and large enough to be moved to oyster farms and inserted into oyster farm nets. The farmers care for the spat for two years until they become large enough to sell commercially.



A handful of oyster spat are the right size for shipment to a shellfish farmer. Spat are delivered to the nursery from a hatchery when only 3 mm in diameter. Once grown to 20-25 mm, they are ready for purchase by farmers to grow to maturity. About two months at the nursery saves a year of growth at the farm. Photo by Ray RaLonde.

In 2003, the business of growing spat from seed was still in its infancy in Alaska. The hatchery in Seward was the only facility in the state that produced seed. Since that facility could not meet the Alaska demand for seed, the Naukati facility was a welcome addition to the oyster growing industry. Having access to nursery-produced oyster spat is vital to the productivity of an oyster farm. It can take an oyster farmer up to four years

to grow seed into spat and in harsh winter conditions they can lose up to 65 percent of the immature seed. If oyster farmers buy spat from the FLUPSY at Naukati, they have to maintain the juvenile oysters for only two years instead of four, and these spat have an almost 100% survival rate. Because of the care received in the nursery, the mature oysters are also shaped correctly and have more market value.

It took seven volunteers only three weeks to build the FLUPSY platform in the harbor area of Naukati during the winter of 2003. This is a nursery platform, where seed from the Seward nursery or the Pacific Northwest are placed in sieve-like structures to grow. The nutrients in the surrounding ocean are circulated up through screen-bottomed trays to the oysters by a paddlewheel apparatus, hence the upwelling of plankton from the lower depths to the surface where the oysters are growing.

While Naukati managed to build a successful and functioning FLUPSY, they did not have enough money to buy seed from Seward and so obtained a grant from the U.S. Forest Service to purchase the seed stock. In 2003-4, the Forest Service was assisting southeastern communities to diversify their economies away from forest products. Since

then, the Forest Service has lauded Naukati as the “poster child” for a timber-dependent community that has achieved independence through economic diversity.

The business is owned by the Community of Naukati and managed by a Community Action Committee comprised of volunteer citizens.

Economic and Community Impact

The Naukati FLUPSY currently sells spat to four oyster farms on Prince of Wales Island and fifteen other farms near Cordova and in Kachemak Bay, near Homer. Previously, customers would buy the sand-sized seed for \$8 to \$9 per thousand, tend them for four years, possibly losing 65 percent of the spat. Now they pay the Naukati FLUPSY \$33 per thousand, and must only maintain the stock for two years before producing oysters they can send to market. The FLUPSY brings in \$20,000 revenue annually to the Naukati West Homeowner Association. Not only does this create some economic stability for individual oyster farmers in southeast and throughout coastal Alaska, but it also helps pay for the community of Naukati’s infrastructure.

Naukati FLUPSY	
Employment:	Part-time bookkeeper
Percent Local:	100%
Ownership:	Naukati West Homeowner Association
Legal Status:	Nonprofit
Years in Operation:	2004 to present

Business Management

Staffing. Art King volunteers as the half-time operator of the FLUPSY. A part-time bookkeeper is employed to provide a monthly profit & loss statement to the Community Advisory Council.

Funding. Startup grants were received from the Alaska Department of Commerce and Economic Development (\$65,000) and the U.S. Forest Service (\$24,000.) The FLUPSY has been self sufficient since it began producing spat in 2003.

Marketing. The Alaskan Shellfish Growers Association, a private nonprofit organization representing shellfish farmers across the state, disseminated information to its membership about the availability of spat from the Naukati FLUPSY. This has been the primary method of marketing the Naukati oyster spat to farmers. The FLUPSY sells all the spat they produce every year.

Future of the Industry. Ray RaLonde, the fisheries biologist with the Marine Advisory Program who originally advised Naukati about the FLUPSY in 2003, believes that shellfish aquaculture is a way to diversify the economic base for communities struggling due to loss of timber harvesting or decline in commercial fishing. He projects the demand for spat will continue because of the expansion of oyster farming in Alaska. He said,

The average 10-acre oyster farm produces about \$17,000 to \$20,000 worth of oysters per acre each year. So this has the potential to provide a sustainable, environmentally friendly livelihood for people.

Today, Alaska has about 60 oyster farms, although less than half are in full production. The market value for oysters in 2005 was about \$1 million, and an industry spokesman, Roger Painter, Director of the Alaska Shellfish Growers Association, expects production to triple over the next ten years. Alaskan oysters thrive in the salt waters of Alaska's coastline because the water is clean and cold. They don't reproduce in waters this cold, however, which will assure a continuous demand for spat as the industry grows.

Challenges and Lessons Learned

The community of Naukati developed a local product with a statewide market that is projected to continue to grow as the demand for oysters expands. While the Homeowner's Association needed government assistance to initiate the enterprise, the venture has grown gradually over the last three years and is slated to expand operations to meet increasing demand for oyster spat.