

# THE MONROE MONITOR & Valley News

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## Were Two Rivers Meet: Monroe dairy wins major award for role in collaborative energy project

In the Coastal Salish language Lushootseed, "qualco" is a word meaning "place where two rivers meet."

In the Tualco Valley, it means something more. It means a place where two once-rival industries, fishing and farming, have met to work toward a common goal of healthy rivers and farmland.

Qualco Energy is the name of a company formed 10 years ago of unlikely allies.

Farmers, fish conservationists and tribes had joined in discussions to find ways to improve the health of local rivers while protecting farmland from flooding.

Along the way, an idea arose to create electricity out of the wastes produced by dairies and fisheries. Together, the Tulalip Tribes, Northwest Chinook Recovery and the Sno/Sky Agricultural Alliance, which included Tualco Valley dairy farmers Andy and Kim Werkhoven, worked to make the vision a reality.

In March, Werkhoven Dairy won the first-ever U.S. Dairy Sustainability Award, a national award created to honor dairies that have practices that advance the sustainability of the dairy industry, for their role in creating the alliance that led to the successful creation of Snohomish County's only biodigester, which creates power from methane gas produced by manure and other wastes.

### Unlikely Friendship

Working to fix a piece of farm equipment Thursday morning in the office of Werkhoven Dairy, Andy Werkhoven said that the award wasn't so much an honor for the dairy as it is for Qualco Energy, the company formed by the unlikely allies that joined forces ten years ago to create what may become a model for farm communities of the future.

Qualco Energy was first born of an unlikely friendship.



Andy Werkhoven, along with brother and dairy partner Jim Werkhoven, were the recipients of a national award in March for their role in an unlikely collaboration of farmers and fish conservationists to create a unique generator that turns dairy and fishery waste into electricity.

Photo by Polly Keary

At the end of the 1980s, farmers and fisherman for decades had been odds. Farming was sometimes bad for rivers; farmers had traditionally filled in river sloughs, old channels of the river cut off by the process of stream bed erosion.

Those sloughs were critical for salmon habitat, and tribes with ancestral rights to fish for that salmon didn't see eye to eye with the inland farmers.

But after the disastrous floods of 1990, Monroe farmer Dale Reiner sought advice about how he could work to prevent more of the flooding that had wreaked havoc on his low-lying Tualco Valley farm. It was hard to get permits to do anything to the bank of the salmon-bearing Skykomish, though, so Reiner continued to farm until a second flood devastated his farm again in 1996.

He decided to take his concerns to local environmentalists and see if they could find common cause.

That was how Reiner met John Sayre, director of Northwest Chinook Recovery. Sayre noticed that Reiner had a slough on his property had been closed for 60 years, and advised Reiner to reopen the slough and create new ponds.

The three-mile network of ponds, once claimed for farmlands, was given back to the river, and within mere hours of the reopening of the slough, adults salmon were spawning in the historic channel once again.

Reiner also won a grant to reinforce a stretch of riverbank using a natural kind of barrier to flood debris that proved very successful. It was a taste of what could happen when groups often at odds worked together, and Reiner and Sayre were open to more.

Biodigester discussed

In 2001, the tribal chairman of the Tulalip Tribes began a series of meetings with area farmers, looking for ways to work together to preserve river health, and the talks went on for about two years. It was during those talks that the idea of a biodigester was hatched.

A biodigester was at the time a very cutting edge piece of technology. It collected methane-producing waste, burned the methane to create electricity, and left the byproduct of the waste to be used as compost or fertilizer.

There were no biodigesters yet in the state of Washington, but after long discussion, the tribes, farmers, and salmon conservationists all decided they each had enough of a stake in the project to make it worthwhile.

The tribes and conservationists would benefit from cleaner rivers with more natural habitat for fish to spawn.

Farmers had even a bigger stake than that.

In the building craze of the late nineties and the early years of the millennium, housing developments crept ever closer to farm land.

While farmland makes a pastoral and pleasant view, farms don't always make pleasant neighbors. A dairy could be malodorous on the best of days; their giant manure lagoons

could be high on unbearable on warm days.

Suburban arrivals to the area began to find incentive to see farms repurposed. Farmland was also attractive to housing developers. Without finding ways to make farms and suburbs compatible, farms would soon find themselves without champions, farmers feared.

Also, farming was getting ever more expensive as the cost of fuel rose. If dairy waste could be turned into electricity that could be sold, and if a low-cost nutrient source could be derived, it could benefit beleaguered farmers.

Werkhovens lead farm effort

No one was more aware of the challenges facing farmers than were Jim and Andy Werkhoven. In 1984, they brothers took over the management of the dairy established by their father Sam Werkhoven in 1959.

It is a large dairy; the Werkhovens have about 1,000 cows on 700 acres of land, some leased.

The Werkhovens were concerned about growing development pressure on farmland, and they too were affected by the rising cost of doing business.

But beyond that, the Werkhoven brothers shared a deep sense of responsibility about farming in a way that did no harm to the land.

"It isn't about the money," said Andy Werkhoven Thursday, leaning forward in his desk chair at the spartan office of the dairy on Tualco Loop Road. "It's about stewardship. It's way bigger than the money."

So when Qualco Energy was formed by the Sno/Sky Agricultural Alliance, Tulalip Energy Corporation and Northwest Chinook Recovery, the Werkhovens took an active role.

The state donated some Tualco Valley land that had once served as an "honor farm," a place where prisoners once maintained a farm. The old honor farm became the site of the biodigester, and the Werkhovens, members of the Sno/Sky Agricultural Alliance, committed to pipe all their dairy's waste a mile and a half to the plant.

Success story

Getting permits for the innovative energy plant was very difficult, so much so that while Qualco was the first company in the state to seek permits for such a facility, it was actually the third company to build one.

But in 2008, it began generating energy made of wastes from dairies, grease from restaurants and waste from fisheries, among other things.

Once the waste is pooled in the 1,452,000 gallon digester and the methane is collected and turned into electricity, the remaining material is sterilized and turned into Grade A compost, which is sold.

Today, Qualco Energy is in good shape, said John Sayre of Northwest Chinook Recovery. In fact, he said, it's time for the project to expand.

"We're producing more gas than we can burn in the existing generator and that gas has to be flared," he said. "We're looking at the best ways to put that to use."

The company could add another generator; currently the biodigester puts out enough power for 300 homes, but could power 800 homes.

Or, Qualco could compress the gas and sell it as a fuel for taxis and other fleet vehicles.

"It's certainly a much cleaner fuel than diesel," said Sayre.

And Andy Werkhoven said that he hopes to see Qualco produce a product that could make farmers in the area more efficient.

He hopes to take the water from the energy making process, filter it, and release some as clean water while preserving some as a highly concentrated fertilizer. The more concentrated a fertilizer is, he said, the lower the cost of moving it, and the greater the benefit to both the environment and the farm economy.

"If it were concentrated, we could move it further," he said. "If you don't have to move things long distance and if you can take the transportation out of costs, efficiency is what happens."

Efficiency and partnership

And efficiency is really the ultimate goal for the Werkhovens. In fact, Andy Werkhoven sees the work of Qualco as a small piece of addressing some of the world's biggest future problems.

"We know that between now and 2050 we'll have to produce more food than any time in history," he said. "We have to be extremely efficient, or the planet wouldn't survive it."

The problem is too big for farmers to solve alone. It's going to take cooperation by everyone. And that's what the award represents, said Werkhoven.

"I feel very responsible that the Qualco message isn't a Werkhoven message," he said. "It's a message to everybody, about how we are going to do this in the future. It's a together deal."

It was, in fact, the cooperative effort with unlikely partners that made the Werkhoven Dairy stand out from the 44 dairies from around the country that were considered for the award.

"We commend Werkhoven Dairy for the leadership role they took in developing this unique and collaborative partnership with a focus on resource conservation and preserving the environment in a way that makes good business sense," said Erin Fitzgerald, senior vice president of sustainability for the Innovation Center for U.S. Dairy, which was founded by dairy producers. "This story inspires all of us to work in new ways to achieve common goals."

Partnership is the most important piece of the Qualco project, agreed John Sayre.

"I think in today's world, in this country, with all the division between everybody about just about everything, one of the things I'm proudest of is that Qualco is a demonstration of different cultures and groups working together," he said.

And Dale Reiner, whose farm was saved as a result of the first tentative cooperation between farms and fish conservationists, and who is part of the Sno/Sky Agricultural Alliance, said the award is a nice recognition of the achievement of the group of former foes.

"We all consider that a pat on the back," he said.

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