

Produced water facilities Harley Dome, Danish Flats falter under impact of oil, gas market decline

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The downturn in the oil and gas markets has taken a significant toll on the two produced water facilities in Grand County — Harley Dome and Danish Flats — according to local officials. Harley Dome has been out of service for a year now, and its owners continue to search for a buyer, while the owners of Danish Flats, which is operating at one-sixth of its previous peak volume, continue to negotiate with the Utah Division of Air Quality (DAQ) over the facility's permit.

A price war between the two facilities may also have pushed Harley Dome out of business, according to Grand County Technical Inspector Lee Shenton.

Shenton told *The Times-Independent* that Danish Flats' operation is much simpler with much less financial investment in equipment, creating the appearance that the facility might be "better able to weather the downturn in the energy market."

"The 'oil patch' is notoriously cyclical, especially at the small operator level, and every time energy prices go low, some small businesses like drillers and waste water processors fail or get bought up by the more resilient ones," Shenton said. "Survival of the fittest is very real."

Although they might be on the outs, the county council recently approved a one-year extension to Harley Dome's conditional use permit, allowing the owner, Armada Water, time to sell the facility.

In a letter to the county, Armada Water said the extension on the conditional use permit will allow the company more time to evaluate "future economic conditions."

Speaking to the county council on Jan. 17, Shenton called Harley Dome a "high tech" operation able to produce a pure water stream from the oil and gas wastewater it receives. Developing that technology was a significant investment, Shenton said, and might be the reason Armada Water is having difficulty selling the facility.

"... They've been looking for a buyer since at least mid-year. To my knowledge, they don't have a buyer yet," Shenton said. "... They put a lot of money into that place, it doesn't surprise me a bit they might have a difficult time finding a buyer to at least recover their investment."

Council member Evan Clapper questioned whether the county might be taking a risk if and when it needs to restore the Harley Dome site, should Armada Water

be unable to find a buyer. The facility's conditional use permit stipulates \$27,000 as the total cost for reclamation.

“With the permit there's a stipulation about the site restoration,” Clapper said. “It sounds like these guys are running on broke. If they aren't able to sell it, what would that restoration process cost them and [might that] be something that they would be able to fulfill and [is that] a risk we might be taking by kicking the can down the road?”

However, council member Curtis Wells expressed confidence that Armada Water would find a buyer, saying the company could likely sell technologies developed at the Harley Dome facility to others in the industry.

“... In the event where this particular company was unable to sustain operations there, I would say it's high likelihood that it would be acquired by someone else,” Wells said. “I don't foresee a scenario where the county is left with a facility that's being run down and a liability.”

Shenton said the county's monitoring fees from both facilities have also been significantly affected by the reduction in operations.

“The county collects monitoring fees at the rate of 10 cents per barrel received from both facilities,” Shenton said. “Those fees peaked at little over \$200,000 for the year for both facilities in 2012. Last year, the total for both facilities was a little less than \$40,000.”

In comparison to Harley Dome, Shenton called the Danish Flats facility, owned by Oilfield Water Logistics, fairly “low-tech.”

“Danish Flats is a low-tech operation,” Shenton said. “They do some preliminary separation of the crude oil and gas hydrocarbon layers and then discharge the water that still has a fair amount of contaminants in it into evaporation ponds.”

Engineers with Utah DAQ say they are still trying to find a more accurate means to measure the emissions from produced water facilities across the state.

“Right now we have six or seven [of these facilities] that are large enough that we're trying to deal with the issue right now,” said Jon Black, environmental engineer for Utah DAQ.

The Danish Flats facility has remained out of compliance with emission controls for nine years. In August 2014, Utah DAQ fined the facility's previous owners \$50,000 for operating Danish Flats for six years without an approval order.

Utah DAQ then ordered the company to install new emission controls, which current owner Oilfield Water Logistics now believes are no longer relevant to its operations.

Utah DAQ told The Times-Independent that Oilfield Water Logistics believes its facility produces lower emissions than the current notice of intent states and

therefore should be allowed to install a less expensive emissions control system.

Although Rusty Ruby, compliance branch manager at Utah DAQ, said his staff found a clean operation when they inspected the Danish Flats facility in September 2016, the state agency still found violations of current emissions controls and issued the company a compliance advisory.

Violations include the failure to maintain and provide records as required by the conditions in their approval order, the failure to install all of the equipment approved by the approval order, and failure to submit emissions sampling reports semi-annually to Utah DAQ.

“What was out there was a lot cleaner process than Danish Flats had had in the past,” Ruby said. “It wasn’t like ‘oh dang, we have to take strict compliance’ ... Unfortunately however, it didn’t match up with the permit they’re operating under. So we sent them a compliance advisory.”

Ruby said Utah’s DAQ compliance department will wait for the project engineers to determine the best emissions measurements for Danish Flats before taking any action.

Black said they are working on a more accurate emissions measurement system, which he expects to be published within the next 30 days. He said the contaminants will now be measured before entering the evaporation ponds at Danish Flats.

“There are ponds in various stages of contamination. So the difficulty is at any one time determining the emissions from any one pond,” Black said. “One strategy to look at is calculating the emissions from the contaminated water before it enters the pond. Since we’re having trouble controlling emissions from the tail end of the process, let’s look at how we can control emissions up front.”