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# WWD

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# A NEW START:



By Cristina Tuser

## Odor control mitigation improves residents' quality of life

**L**ocated 30 miles south of Rocky Mountain National Park, Granby RV Park is a place for RV owners and other nature enthusiasts to convene and enjoy the outdoors. To ensure campers, whitewater rafters and other frequenters enjoy the vast expanses the area has to offer, tackling a less enjoyable issue at the Granby RV Park, specifically an odor issue, was at the forefront of Granby Sanitation District's agenda.

The Granby RV Park had a force main approximately 9,000 feet long, which was going septic, causing a massive odor problem.

Andrew "Hopper" Becker, superintendent of operations for Granby Colorado Sanitation District, was determined to find a sustainable

solution to the odor control problem. The sustainable route is not always the easier route, but he was not alone in this desire to achieve it.

Since RVs have high-efficiency appliances, there is an incredibly high BOD and organic flow coming out of RVs and holding tanks, which contributes to the problem. Initially, a recommendation for atmospheric oxygen was made, but this was ultimately rejected because it would not have worked for this particular site.

The use of the Anue Water FORSe oxygen injection system with remote digital telemetry was adopted and tested for six months instead. It is still operating successfully today.

"As the developer started putting a design together to pump the sewage over all of that distance to the sewer plant, we started thinking about the possibility of severe H<sub>2</sub>S production and septicity...other problems associated with long resident times," said Hopper about the beginning stages of mitigating the odor control issue. "It is directly my responsibility

to ensure compliance to the discharge permit, and I take that seriously to protect the public health and the environment."

A second major goal of the project was to ensure the best possible water quality without adding additional chemicals, which could potentially become an issue in the future.

Another consideration came down to the site location, as it is not the easiest to access due to the nature of the RV park itself. The lift station pad is fairly small, as well, so chemical storage was a concern, Hopper added.

"Anue Water's FORSe systems feature remote digital telemetry, making it safe and easy for operators to monitor and control dissolved oxygen levels," said Greg Bock, Anue Water vice president and general manager. "The FORSe systems also has the capability of injecting ozone for those applications, which require ozone or a combination of oxygen and ozone."

When Hopper connected with John Enochs of Diamondback Engineering, the two realized

# Granby RV Park



the dissolved oxygen system would work well. Oxygen injection has no residual. Though the system is complex, the pair liked that it was pure oxygen with a small footprint and is thus far more sustainable than other approaches.

"We're going through a SCADA upgrade at the plant, so the system will be upgraded via remote telemetry into our SCADA," Hopper said about the system. "The technicians at Anue can log in as well, so if there is anything that needs to be changed or fixed, they can do so remotely, which is far more convenient. This ultimately frees up more time for me to tend to other aspects of maintaining the quality of space."

Due to the location in the mountains and sometimes unpleasantly frigid weather conditions, it is difficult to get field technicians on site to work on issues as they crop up, so having a remote option is ideal for the team. The project itself was relatively straightforward, so there were no challenges during the process.

The development is in its first phase, so

future work is to come, Hopper said. There are plans to create an approximately 300-unit neighborhood of manufactured homes at the Granby RV Park, but the timeline is constantly changing as the coronavirus pandemic continues to alter daily operations for businesses everywhere.

"It is a unique development out there that has its own unique set of challenges. The challenge for us moving forward will be to monitor the way-stream," Hopper said. "Right now, there is not a lot of use out there since it is so new and due to COVID-19 restrictions, as the county has outlawed short-term rentals, but this could very well change."

There are two force mains from the development to the district, one is 4 inches and the other is 8 inches. The only complicated aspect of this project, according to Hopper, was working to get the proper dose to each line.

The system delivers pure oxygen, which deals with the biological load much better than aerating a wet well and pumping the

water to the plant. The ability to inject pure oxygen at a correct dose, according to Steve Hansen, P.E. for Ambiente H2O, prevents unpleasant byproducts from forming.

The contractor on site was initially concerned about the cost of the prepackaged Anue system being delivered, but these concerns diminished when the pros and cons were considered more deeply.

Due to the coronavirus restrictions, Phase 2 may move forward in Spring 2021, but this is still up in the air and subject to change.

According to Hopper, anywhere there is a long stretch of force main with accessibility issues, this same system would be perfect.

"You would not have to worry about chemical containers, delivery trucks, dose pumps...the biggest beauty of the whole system is that it is containerized and modular," he said. **WWD**

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