

THE CHALLENGE:

Eight Degrees Celsius – that is the typical minimum wastewater temperature that the City of Rigby Wastewater Treatment Facility experiences each winter. For any outdoor facility, low temperatures create enough headache for equipment maintenance and daily operations, but for the Rigby WWTP, a new permit meant they needed to keep their nitrifying bacteria through the coldest part of each winter. Their most recent permit included a very stringent ammonia limit during the winter – monthly average of 0.65 mg/L – which must be achieved by October 1, 2024.



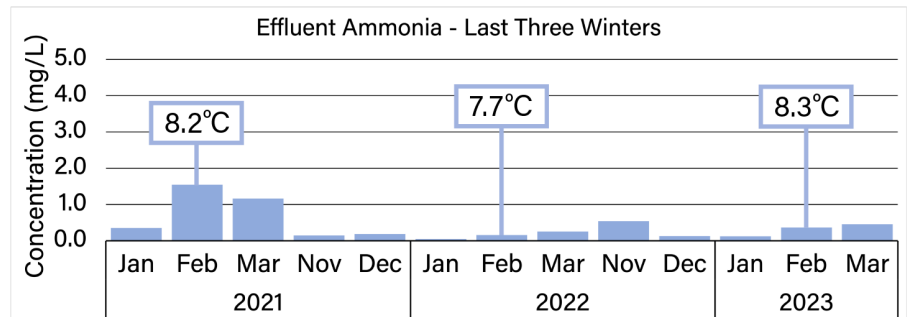
Design Flow	MOB Capacity: 1.86 MGD Original Design: 0.65 MGD
Effluent Goals	Ammonia: 0.65 mg/L (Oct-Apr) BOD: 10 mg/L TSS: 10 mg/L
Project Goals	Nitrification - Cold Weather Improve Settling Increase Capacity

WHY THE MOB PROCESS WAS CHOSEN:

Nuvoda's MOB Process was installed to stabilize the plant's performance and meet the discharge requirements of the new permit utilizing the existing oxidation ditches. After the installation of Nuvoda's MOB Process, the Rigby WWTP observed improved settling in the secondary clarifiers, less susceptibility to process upsets, and excellent ammonia removal rates at low temperatures. The MOB Process offered low installation costs and minimal impact on the existing equipment. Scott Humphreys, the Wastewater Superintendent, has appreciated what it has done for his facility saying, "It's really easy to install, and straightforward to operate - it's like plug and play, and it works great!"

WHAT WAS ACHIEVED:

- Increased Treatment Capacity by nearly 3x - per engineer's capacity analysis
- Achieved Cold Weather Nitrification down to 8°C
- Utilized Existing Facility for a Rapid Retrofit
- Proven Less Susceptible to Process Upsets



WHAT THE MOB PROCESS CAN DO FOR YOU:

- Improved Nitrification and Nutrient Removal
- Resilience to Upsets, Load Variation, and Low Temperatures - Down to 8°C
- Stabilized Settling Performance
- Retrofits into any Process Configuration

