NUVODA
Innovative Wastewater Solutions

# CASE STUDY:
# PEAK SEASON RESILIENCE
## DESTIN, FLORIDA

## THE CHALLENGE:

Operators at the George F. French Water Reclamation Facility have to maximize the plant's performance during the warm summer months. As tourism picks up each year in Destin, Florida, increased loadings put the treatment plant to the test. The plant, comprised of five parallel oxidation ditches, was looking for a solution to increase capacity starting with Oxidation Ditch 5. Their challenge was this: any time flow surpassed 2 MGD, nitrification, and overall treatment performance would drastically suffer. A solution was needed to stabilize operation and achieve nitrification under high flows.

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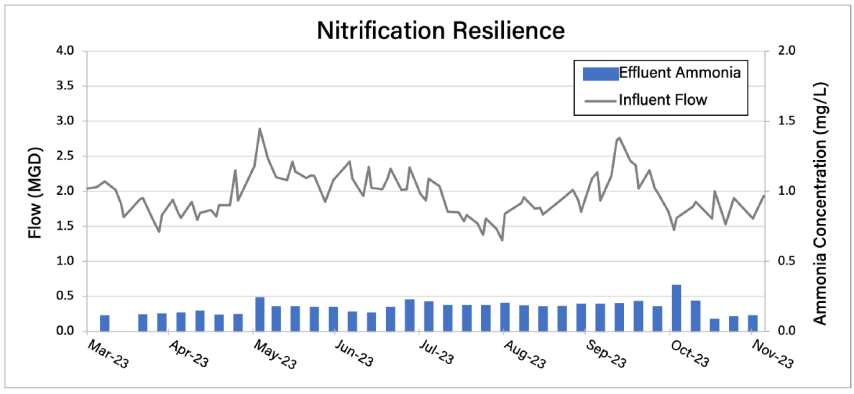
|---|---|
| Oxidation Ditch 5 Flows | 2.89 MGD Peak Flow Observed<br>2.03 MGD Avg Summertime Flow |
| Effluent Goals | Ammonia: 1.0 mg/L<br>BOD: 10 mg/L<br>Turbidity: 3 NTU |
| Project Goals | Increase Capacity<br>Nitrification<br>Improve Settling<br>Lower SRT |

## WHY THE MOB PROCESS WAS CHOSEN:

Nuvoda's MOB Process was installed into Oxidation Ditch 5 on a trial basis to increase treatment capacity, and to stabilize the plant's performance during the peak tourist season, which is from Memorial Day to Labor Day. Due to Nuvoda's MOB Process, Oxidation Ditch 5 successfully operated above the previously problematic higher flows, observed improved settling in the secondary clarifiers, demonstrated process resiliency, and produced excellent ammonia removal efficiency throughout the trial. The MOB Process offered rapid deployment and low installation costs to incorporate into the existing facility.




## WHAT WAS ACHIEVED:

- Operated Above Initial Capacity by 40%
- Sustained Nitrification During High Summertime Flows
- Utilized Existing Facility for a Rapid Retrofit
- Proven Less Susceptible to Process Upsets

## WHAT THE MOB PROCESS CAN DO FOR YOU:

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

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