



WaterSolve
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ENVIRONMENTAL WATER TREATMENT SOLUTIONS

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Solve 3 Settles TSS in Lagoon

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The Challenge

The lagoon wastewater treatment system at this municipality was nearly full and needed to discharge its seasonal allotment of water. The TSS (total suspended solids) in the lagoon needing to be discharged was 64 mg/l and needed to be reduced. WaterSolve came with the recommendation to apply Solve 3 to the lagoon to help drop the suspended solids in the lagoon to get into the legal discharge limit. The Solve 3 would help coagulate the solids together and get them to drop to the bottom of the lagoon.

Chemical Conditioning

One barrel of Solve 3 was applied to the 3.5 acre lagoon which contained approximately 9 million gallons of water. A boat was rigged with a 30 gallon container that had a pipe extending out over the edge of the boat. The pipe had some holes drilled in it and a valve. The Solve 3 was pumped into the barrel on the boat. As the boat left the dock the valve was opened and the application began. It took about 5 minutes to apply 20 gallons of the Solve 3 as the boat traveled across the lagoon. There was an immediate reaction in the lagoon as the water became cloudy and floc was formed.

The Result

A noticeable floc formed immediately as the Solve 3 was applied. There was even a scum layer forming from the floc before it eventually sank to the bottom of the lagoon. The TSS measured 64 mg/l before the application and was reduced to 46 mg/l from a sample taken 3 days after the application. The operator was very happy with the results and treated a second lagoon with a barrel of Solve 3 as well. This small investment in 2 barrels of Solve 3 got him in compliance and able to discharge as needed.



The Solve 3 is being pumped into the barrel on the boat which was placed on a pallet in the center of the boat. A pipe extends out over the boat and a valve controls the application.



The operator navigates the boat around the lagoon as the Solve 3 is being applied.



A cloud of floc begins to form immediately as the boat travels across the lagoon.