



CRYSTAL RIVER SEDIMENT TREATMENT AND PHOSPHORUS REMOVAL

Gator Aquatic Technologies (GAT) recently completed a full scale, commercial application of our patent pending technology (Application #62/263,007) to demonstrate our ability to safely treat dredged sediments and remove total Phosphorus from the effluent in a single treatment phase.

The study was conducted at the Crystal River Dredge Project during the 4th quarter of 2015 in conjunction with Gator Dredging utilizing our patent pending technology.

In summary - GAT provided the treatment of the dredged slurry at flow rates of 1500 – 2000gpm over a 30-day trial period during which; samples were collected on the incoming dredge sediments and the effluent as it released from the geo-textile bags. These samples were collected by Gator Dredging staff and taken to a third party for lab analysis. As shown in TABLE 1; the total Phosphorus levels were reduced to ≤ 50 ppb on the water returning to Crystal River. Effluent was also collected from the geo-textile bags during the demonstration and taken to an accredited lab for Chronic and Acute Toxicity Testing, with results determining the treatment to be 100% aquatically safe.

TABLE 1

Date	Incoming Water	Effluent Discharge from Geo-textile bags
10/18	4.6 ppm total P	< 20 ppb (undetectable)
10/22	11 ppm total P	< 20 ppb (undetectable)
10/27	2.5 ppm total P	< 20 ppb (undetectable)
10/30	1.4 ppm total P	41 ppb total P
11/3	3.5 ppm total P	44 ppb total P
11/5	11 ppm total P	< 20 ppb (undetectable)
11/10	2.4 ppm total P	46 ppb total P
11/12	2.4 ppm total P	48 ppb total P

This unique process allows the dissolved and undissolved Phosphorus to be captured and bound with the dredged sediments in a single treatment phase while still the pipeline as the slurry reports to a variety of dewatering mechanisms. In this case, geo-textile bags. Subsequently, no additional infrastructure or process equipment is necessary, rendering our technology to be one of the most cost effective and aquatically safe processes available.

While the samples collected at Crystal River were not measured for Total Nitrogen reductions; all other trials and studies conducted by GAT using our patent pending technology have shown the TN reductions to range from 40-70% removed.



As supplements to this report, please see accompanying documents that include:

1. Chronic and Acute Toxicity Tests Results
2. Bio Assay Lab Accreditation
3. Third Party Lab Analysis

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