



Taylor Creek Algal Turf Scrubber®
(ATS™) Nutrient Recovery Facility
Performance Review (Jan 2007- Aug 2008)

TC-ATS™ Operational Summary

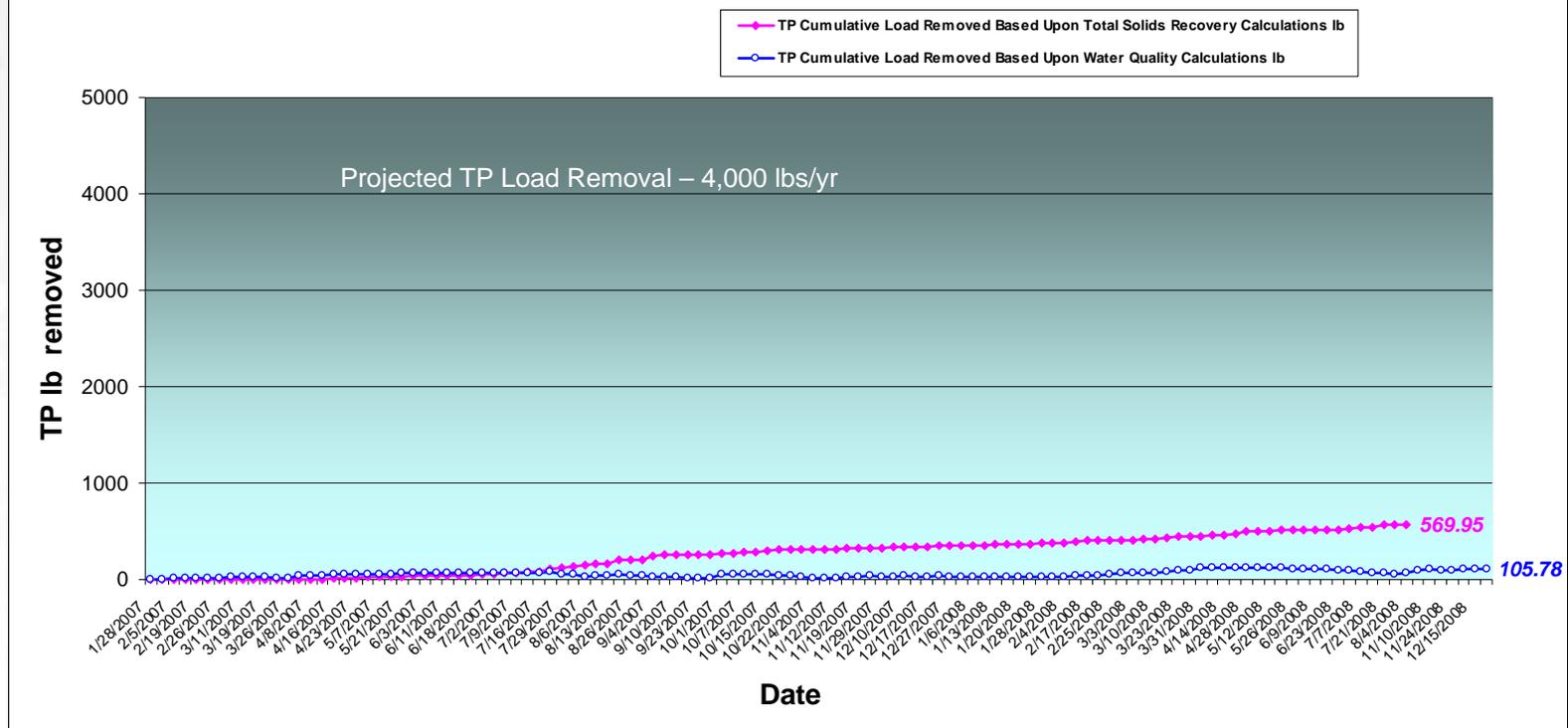
- **Operation began in late January 2007**
- **Severe drought which ended in early July 2007 impacted startup operation and system performance**
- **Algal die-offs in September 2007 and May 2008**
- **Investigations of water quality conditions and operational parameters initiated in July 2007**
- **Causative factors remain unidentified**



TC-ATS™ Performance Summary

- Phosphorus removal performance remains below projections (Projected TP Load Removal = 4,000 lbs/yr)
- Huge disparity between water quality-based and solids recovered-based TP load removal

Phosphorus Removal Summary January 2007 through December 2008



Results of Investigations on TC-ATS™ Reduced Performance

- **No improvement in treatment performance with reduced Linear Hydraulic Loading Rate**
- **Nutrient supplementation did not enhance algal productivity**
- **Tests addressing analytical discrepancies yielded no conclusive results**
- **Collaborative work with UF-IFAS and FDACS has not identified with certainty which factors are interfering with turf production and nutrient removal**

What's being proposed?

- **Continue investigation of water quality conditions impacting treatment performance**
- **Focus investigation on identification of substances deleterious to TC-ATS™ performance**
- **Hydromentia will focus on identifying the agent or causative factor inhibiting algal growth**
- **Hydromentia will produce a final report describing their investigation and information gained from 3 years of operation**

Resolution

- **A Resolution of the Governing Board of the South Florida Water Management District to authorize an amendment to contract 3600000952 with HydroMentia, Inc., for one additional year of operation and maintenance of the Taylor Creek Algal Turf Scrubber® Nutrient Recovery Facility, and authorize a Sole Source Procurement as an exception to the general standards of competition, to extend the term from January 31, 2009 to January 31, 2010, and to increase funding in the total amount of \$300,000, for which Ad Valorem funds are budgeted; providing an effective date. (Contract Number 3600000952-A03) (David Unsell ext. 6888)**