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14775 Old St. Augustine Road • Jacksonville, Florida 32258

December 28, 2011

→ Reza Shayan Brian

Ms. Melissa Long, P.E.
Program Administrator
Water Resources
Florida Department of Environmental Protection
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256

Re: Trail Ridge Landfill
Annual Stormwater Pump Station and Stormwater Irrigation system field review
Permit Number 0013493-017-SO
ETM Project Number E05-191

Dear Ms. Long:

In accordance with Specific Condition No. 48 c. of the referenced permit for the Trail Ridge Landfill, the annual field review of the stormwater treatment facility (wet detention system) and the stormwater wetland irrigation system was conducted on December 21, 2011. Based on this field review of the stormwater pump station and the stormwater treatment system as well as the stormwater wetland irrigation system, it appears that these systems were operating in accordance with the permitted design. Please see the attached reports, which have been signed and sealed in accordance with the specific condition.

If you have any questions, please do not hesitate to give me a call.

Sincerely,

ENGLAND-THIMS & MILLER, INC.

Scott Jordan Lockwood, P.E., ETM

Attachments:

Stormwater Pump Station Field Review and the Stormwater Wetland Irrigation Field Review

cc: Jeff Foster, City of Jacksonville
Greg Mathes, Trail Ridge Landfill, Inc.
Edward Schmalfeld II, Trail Ridge Landfill, Inc.
Eric Parker, Trail Ridge Landfill, Inc.
Emerson Raulerson, Solid Waste Section, FDEP
Juanita Bader Clem, P.E. ETM

\\ETM\115-191\General Stormwater Annual Field Review 11.doc

Trail Ridge Landfill

Annual Stormwater Pump Station Field Review

Test Date: December 21, 2011

Reference: Trail Ridge Landfill
ET&M Job No: E 05-191

Start Time: 11:00 AM

Weather: Overcast Cool 70+/-

Attendees:
Craig Strickland
Scott Jordan Lockwood, P.E.

Company
Trail Ridge Landfill, Inc.
ETM

Based on Original Design Parameters (Etm Plans Job No. E89-113-9)

Inflow Rate into the Storm Water Smf must be between 2.11 Cfs (947 Gpm) and 2.50 Cfs (1122 Gpm)

Based on existing Storm Water wetwell size 8' x 8' square approximately 478.75 Gallon / Ft of Depth

2.11 Cfs (947 Gpm) at (478.75 Gal / ft.) =	1.98	feet of Depth (Min.)
2.50 Cfs (1122 Gpm) at (478.75 Gal / ft.) =	2.34	feet of Depth (Max.)

Note:

During testing, the stormwater pumps located south of the Landfill were turned on so that the stormwater level in the wetwell was dropped. Next, the stormwater was allowed to enter the stormwater wetwell under gravity flow via intake from the stormwater management facility. The intake valves were adjusted such that inflow was set between 947 Gpm and 1122 Gpm. The level was measured every 30 seconds for one minute. After each test the average flow rate was calculated to determine the rate of inflow. The Test was repeated until the average inflow was within design parameters. Once the desired rate was achieved the number of turns for each valve was noted by Trail Ridge Landfill, Inc and written down on the inside of the control panel. Each valve was opened to 6 turns (Counter Clockwise Opens and Clockwise Closes the Valves). During Testing it was noted that two of the Pumps for the Triplex Station are in need of repair. ETM recommends that all of the pumps / impellers be checked and the wetwell be emptied to remove any sand or debris from the bottom. ETM also recommends that the weeds growing around the Oil Skimmer be removed to avoid blockages. ETM has been informed that the dirt from the two deltas at the inlets for the storm water system will be cleaned out in the near future. ETM also reviewed the stormwater irrigation system and it appeared to be well maintained with some minor blockages in a few of the spray headers.

Depth to Water from Top

10.2	Feet
8.74	Feet
7.9	Feet

Time

0 Sec
30 Sec
60 Sec

Fall Difference

0	Feet
1.46	Feet
0.8	Feet

Totals 1.0 Min.

2.3 Feet

Average inflow per minute

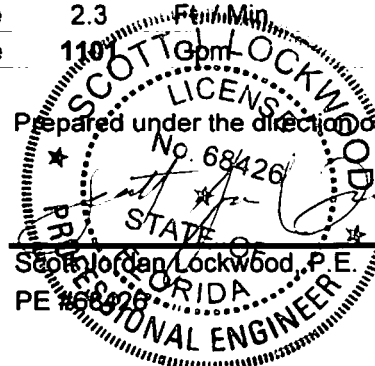
2.3 Feet/Min

Average Intake

1100 Gpm



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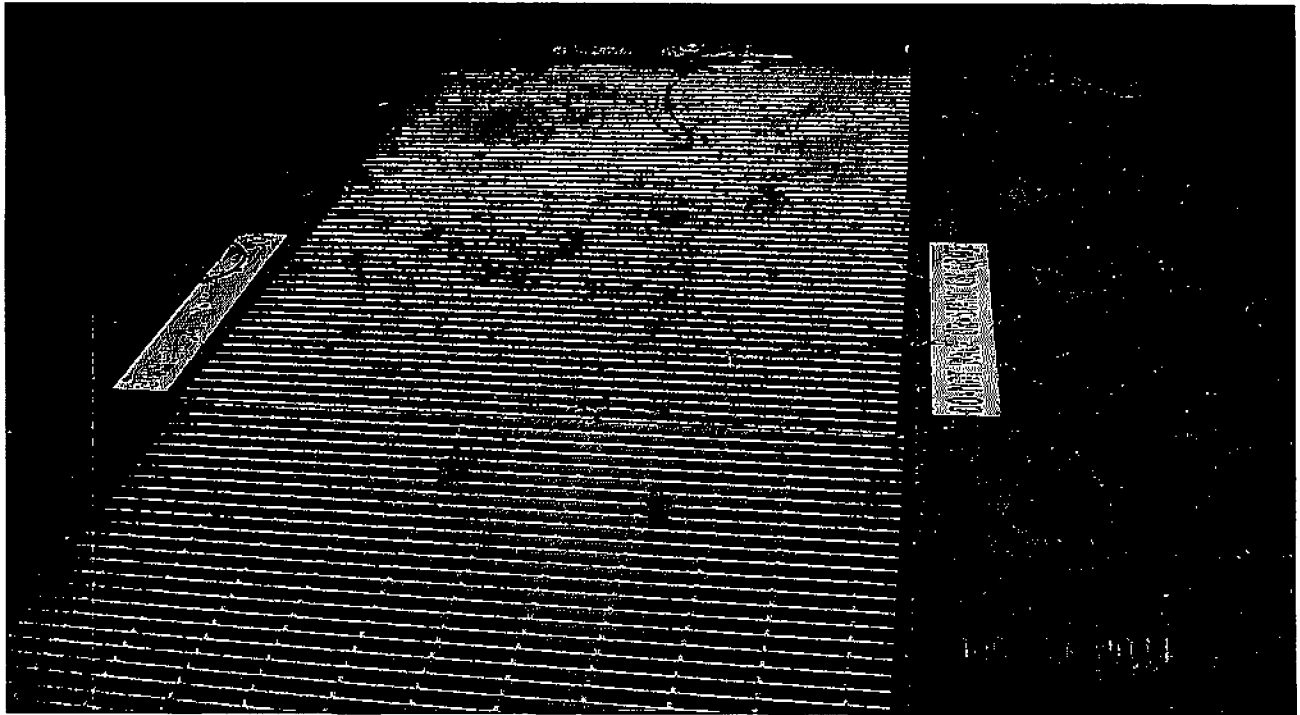




Storm Water Irrigation Spray Header – irrigating the woods



Storm Water Irrigation Spray Header – irrigating the woods



Storm Water Pump Station Wetwell



Storm Water Control Structure – Facing Northerly (Downstream)



Storm Water Control Structure – Facing Southwest (Upstream)



Storm Water Control Structure – Facing Southwest (Upstream)