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June 14, 2010

Township Supervisor  
Attn: Frank Force  
12050 Old Belding Road  
Belding, MI 48809-9318

***Grattan Township and Grattan/Vergennes Sewer Systems***  
**May 2010 Monthly Operations Report**

Dear Frank,

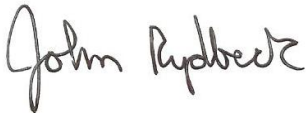
Attached please find the Grattan Township Wastewater Utilities Report and the Preventative/Corrective Maintenance Report for May 2010.

Attached is IAI's sludge removal report from all four lagoon cells in both the Grattan WWTF and Grattan/Vergennes WWTF.

Leslie Sorenson of the DNRE performed a routine site inspection at the Grattan/Vergennes WWTF with an extensive Sanitary Survey Inspection of the Grattan WWTF. Overall she was very pleased with both plant's operation and appearance. A formal letter summarizing her visit and recommendations should be received shortly.

As always I would be happy to elaborate on any of the submitted information or provide any additional information that would assist the township board. If there are any questions or concerns please do not hesitate in contacting me.

Sincerely,



John Rydbeck  
(616) 890-5768  
Infrastructure Alternatives - Grattan Township Sewer System Operations Manger

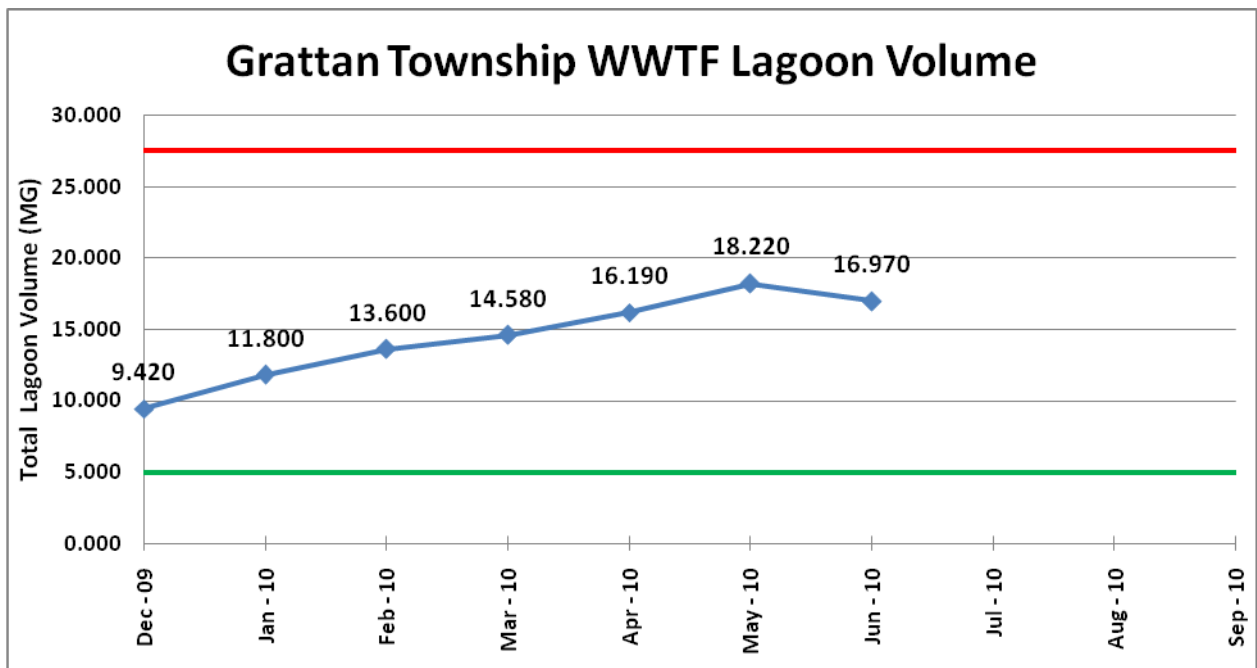
Attachments: May 2010 Preventative/Corrective Maintenance Report  
IAI Lagoon Sludge Measurements and Estimated Disposal Costs Report

## Grattan Township Sewer System

### Executive Summary:

A total of 3.079MG has been discharged through the irrigation system at the Grattan WWTF. The DNRE has pro-actively approved the increase to 2.35"/week (from 2.00"/week) which has been in effect since the first week of irrigation. The chart below shows the monthly total lagoon volume and discharge volume. More detailed weekly data can be made available upon request.

Leslie Sorenson performed a Sanitary Survey inspection of the facility on May 26, 2010. She was pleased with the overall operations and appearance of the facility. She will be providing some recommendations for Duckweed removal from the lagoons as well as the discharge meter repair or replacement.



### Emergency Call-Outs:

- Sunday May 2, 2010 12:45 a.m. – 7:15 a.m. POWER OUTAGE BPI-PS #2, BPI-PS #3, BPI-PS #3A, BPI-PS #4: System-wide power outage. Robert Carlstrom and John Rydbeck provided stand-by power to the pump stations to prevent a sanitary sewer overflow or sewer back-up.

### General Operation Information / Housekeeping:

- The valve chamber for BCL-PS #1 was pumped out for removal of the old venture flow meter.
- A brush hog was rented to begin trimming the vegetation around the lagoon cells for proper berm maintenance.
- Plummer's Environmental used a vactor truck to clean the grease and debris from BPI-PS #2, BPI-PS #3, and BPI-PS #4.

### Preventative Maintenance:

- The preventative maintenance tasks have been completed for May 2010 and summarized in the

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attached report.

**Corrective Action / Significant Tasks Completed:**

- Tuesday May 25, 2010 BPI-PS #1: Grandtech Inc. removed the old venturi flow meter with a spool piece (capable of incorporating a Mag Flow meter in the future). The project was completed without issue, however a pump draw-down test was not completed prior to the venture flow meter removal for comparison. The draw-down taken after the spool piece installation showed 0% improvement from the draw-down in August of 2009.

**Pending Projects:**

- Provide a prioritized capital improvement task list from the information included in the Assessment of Facilities report.

## Grattan/Vergennes Township Wastewater System

### Executive Summary:

The WWTF began its seasonal discharge through the existing irrigation season. There was 4.504MG discharged through the month of May. Williams & Works is currently preparing specifications for replacement of the irrigation system as required by the DNRE.

Leslie Sorenson performed a routine visit of the WWTF on May 26, 2010. She was pleased with the overall appearance and anticipating the future irrigation improvement project.

### Emergency Call-Outs:

- Saturday May 1, 2010 @ 3:00 a.m. HIGH LEVEL/LAG PUMP-ON ML-PS #13: Arrived on-site to find Pump #2 was tripped off. Pump #1 was placed in permanent Lead-On, and Pump #2 was pulled later that day and unplugged.
- Sunday May 2, 2010 12:45 a.m. – 7:15 a.m. POWER OUTAGE BCL-PS #1, ML-PS #2, ML-PS #3, ML-PS #4, ML-PS #5, ML-PS #6, ML-PS #7, ML-PS #8, ML-PS #8A, ML-PS #9, ML-PS #10, ML-PS #11, ML-PS #12, ML-PS #13, RL-PS #15: Extensive power outage. Robert Carlstrom and John Rydbeck provided stand-by power to the pump stations to prevent a sanitary sewer overflow or sewer back-up.
- Tuesday May 11, 2010 11:30 a.m. – 2:00 p.m. POWER OUTAGE RL-PS #16: The power was lost to the station. A portable generator was brought to the station until line-power was restored.
- Wednesday May 19, 2010 9:30 p.m. – 10:00 p.m. POWER OUTAGE ML-PS #11: Received power outage alarm from the Mission dialer. Monitored the station remotely via the Mission system until power was restored.
- Thursday May 20, 2010 2:30 p.m. – 4:00 p.m. and 8:00 p.m. – 10:30 p.m. POWER OUTAGE ML-PS #11: Received multiple Power Loss alarms from the Mission dialer. The station was monitored via the Mission dialer until power was restored. Due to the isolated nature of the power failures (i.e. just the station), there is some additional troubleshooting in to the electrical control circuits of both the pump station control panel and Mission dialer.
- Monday May 24, 2010 1:30 p.m. – 4:00 p.m. HIGH LEVEL ML-PS #13: Received high level alarm from station dialer. Found pump #2 tripped off and pulled to investigate. No plugging could be observed, however metal shavings previously recovered from inside the pump would suggest some metal in the pump station intermittently plugging the pump. The station was scheduled to be vactored out to clean any potential metal or rags which could plug the pump.
- Wednesday May 26, 2010 4:30 p.m. – 7:30 p.m. HIGH LEVEL ML-PS #7: Received high level alarm from Sensaphone dialer and arrived on-site to find neither pump tripped off. The pumps ran fine in Hand, but did not actuate properly in Auto. Troubleshooting revealed that the original Warrick ISR's (Intrinsically Safe Relays) actuating the Lead Pump On and Lag Pump On were bad. Temporary automatic controls were wired with the telephone assistance of JC VanHarn of Grandtech. The ISR's were later replaced with two (2) new Diversified ISRs. In the event that this station is rehabilitated with a pressure transducer and MPC Controller, the Diversified ISRs will still be utilized for the back-up controls.

### General Operation Information / Housekeeping:

- The valve chamber for BCL-PS #1 was pumped out for removal of the old venture flow meter.
- A brush hog was rented to begin trimming the vegetation around the lagoon cells for proper berm

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maintenance.

- Plummer's Environmental used a vactor truck to clean the grease and debris from ML-PS #8A and ML-PS #13.

**Preventative Maintenance:**

- The preventative maintenance tasks have been completed for the month May 2010 and summarized in the attached report.

**Corrective Action / Significant Tasks Completed:**

- Monday May 10, 2010 ML-PS #7: The re-built Pump #1 was installed. The pumpage increased from 205 gpm to 218 gpm, although the primary reason for re-building the pump was the pump seal failure versus the lack of pumping capacity.
- Monday May 10, 2010 ML-PS #10: Pump #1 was found to be not running from the Mission report. The pump was pulled, observed to be plugged, and the rags removed.
- Tuesday May 25, 2010 BCL-PS #1: Grandtech Inc. removed the old venturi flow meter and upon removal the forcemain pipe deflected upward 3"-4". Plummer's Environmental provided bypass pumping while Grandtech installed (2) flexible connectors to accommodate the new deflection without stressing the pipe and fittings. A pump drawdown completed after the project showed a 20% improvement on each pump in comparison to the drawdowns completed in August 2009.

**Pending Projects:**

- Provide a prioritized capital improvement task list from the information included in the Assessment of Facilities report.