

Regional Sewer Update

Municipal Council
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Discussion Points

1. Advice Received
2. Recent Undertakings
3. Most Recent Undertakings
4. Upcoming Improvements
5. Questions



Advice Received to Date

- Consulting engineers & in-house staff advise problem is due to lack of oxygen
- Healthy and odour-free biological treatment plants require Dissolved Oxygen in the lagoons
- New air diffusers have been installed; problem relates to the supply of air from blowers



Old Aerators (now replaced)



New Aeration Diffusers (in operation on right)



Recent Undertakings

- Added air in the lagoons, multiple methods
 - Recirculation of water from healthier lagoons to Lagoon 1
 - Installed lagoon masters
 - Placed a 4th blower in service



Lagoon Masters in Operation





**Temporary pumps
installed to transfer
water from healthy
lagoons to Lagoon 1**



Most Recent Undertakings

- Received delivery of two new high efficiency blowers
- Received professional advice on piping connections to maximize air output
- Installed last weekend
- Awaiting supplier commissioning (this week)





**New High Efficiency Blower Installation
(to be commissioned this week)**

Fabrication of Connections to Air Supply Line

- Based on advice to separate delivery to Lagoons 1 & 2
- Intended to maximize air delivery, provide system backup air
- Recently Installed May 31 & June 1



Most Recent Undertakings, cont'd

- Controls supplier - tuning of Air Blowers in second blower building to increase output by 70% in Lagoons 3, 4 & 5 (now in operation)



Blowers to Lagoons 3, 4 & 5



- Now supplying 70% more air to these lagoons
- Now seeing Dissolved Oxygen increases in Lagoons 3, 4 & 5



Most Recent Undertakings, cont'd

- Received professional advice for introduction of an oxygen-supporting compound (a natural solution used for odour control in wastewater)
- Works by providing a nitrate nutrient that is consumed by lagoon bacteria, which promotes increased dissolved oxygen levels
- Bulk & maintenance dosing to start this week



Equipment now
on-site for dosing
of Oxygen Boosting
Compound



Upcoming Improvements

(per Regional Technical Sub-Committee)

- Purchase & install Composite Samplers at large institutional and industrial users
- Inflow pH & influent load monitoring
- Increase in the daily & weekly collection and analysis of operating parameters



Upcoming Improvements, cont'd

(per Regional Technical Sub-Committee)

- In-depth engineering study of entire system has been started by consultants



Questions from Council

www.countyofkings.ca/regionalsewerupdates

