

## SMALL SYSTEMS WASTEWATER REPORT

<b>REPORT DATE</b>	DECEMBER 31, 2017	<b>INSPECTORS NAMES</b>
<b>LOCATION</b>	S.V. of Sandy Beach, Alberta	Trevor Gardner
<b>REPORT TYPE</b>	Monthly	
<input checked="" type="checkbox"/> <b>INFORMAL</b>	<input type="checkbox"/> <b>FORMAL</b>	

### SMALL WASTEWATER SYSTEM - SITE SPECIFICS

<b>MUNICIPALITY</b>	SV of Sandy Beach	<b>SITE CLASSIFICATION</b>	Small Wastewater <500
<b>LICENCE NUMBER</b>	1137-02-00	<b>NUMBER OF CELLS</b>	3
<b>FOR PERIOD OF</b>	DECEMBER 2017	<b>OPERATOR NAME &amp; CLASSIFICATION</b>	Trevor Gardner – Small System Wastewater
<b>OWNER ADDRESS</b>	Box 63, Onoway, Alberta, T0E 1V0	<b>OWNER CONTACT NUMBER</b>	780-967-2873

### SMALL WASTEWATER SYSTEM - OPERATION ACTIVITY

1	<b>Flows/volumes</b> - (Fluid transfers between cells, Discharged amounts, Hydraulic loading amounts)
	<ul style="list-style-type: none"> <li>- No fluid transfers between cells this month.</li> <li>- Trucked in wastewater volume totals approximately – 100, 000Imp. Gallons</li> </ul>
2	<b>Discharge</b> - (state period of discharge; receiving course; conditioning of run off; precautionary measures prior to and during runoff, which cell actually drained)
	<ul style="list-style-type: none"> <li>- Application for urgent discharge this fall was not approved by AEP. (NOVEMBER)</li> <li>- No discharge was completed in December</li> </ul>
3	<b>Chemicals</b> – (state name and quantities of any chemicals used including enzymes)
	<ul style="list-style-type: none"> <li>- No chemicals used in December.</li> </ul>
4	<b>Sampling/Testing</b> – (State location and date of fluid sampling; unauthorized discharge, ground water monitoring, sludge testing and control. Please attach results if applicable)
	<ul style="list-style-type: none"> <li>- No Sampling/testing done in December.</li> </ul>
5	<b>Other</b> – (provide comments as to maintenance performed, upgrading done or planned, general problems with the system, system modifications, nuisance complaints/odour, etc.)
	<ul style="list-style-type: none"> <li>- Fluid levels in all the cells are <b>EXTREMELY HIGH</b> and inches from reaching <b>MAXIMUM CAPACITY</b></li> <li>- Warm weather in the early part of the month added extra stress on the high fluid levels. The added weight of the snow pack melting on top of the ice.</li> <li>- Continuing to add wastewater to the high levels may result in a worst scenario then the spring of 2017. In spring 2017, high fluid levels encroached onto and were pushing over the berms.</li> <li>- It is very difficult to gauge the height of the fluid now that the cells are frozen over</li> <li>- I would strongly suggest alternative disposal sites be looked into and a decision made by council/administration as to whether the lagoon continues to be used for the disposal of wastewater from the residential properties of Sandy Beach.</li> </ul>

SMALL WASTEWATER SYSTEM INSPECTION

Yes	No	Safe work practices	Note location, nature of violation
X		Pedestrian traffic obeys safety rules?	
X		Only authorized persons working on site?	
X		Drivers obey speed limits, signs & patterns?	
X		Only authorized drivers/vehicles on site?	
X		Drivers check before backing up and yield to the right of way?	
X		Drivers use hand and footholds properly to get on and off trucks and trailers?	
X		Site workers and drivers dressed properly for job duties and weather?	
X		Proper procedures followed for reversing, parking, and offloading of vehicles?	
X		Wastewater units attended when offloading?	
X		Offloading area kept clean of debris?	
X		Is emergency equipment clear, clean and easy to access?	
X		Personal protective equipment is being utilized for the tasks at hand?	

Yes	No	Security	Note location, nature of violation
	X	Site entrance has owner identification signs, warning signs and emergency contact number?	No owner identification sign at lagoon site, warning signs for pedestrians to stay out and no emergency contact number posted.
X		Fences are in good condition, no overgrown areas, free of shadows?	
	X	Gates are in good repair, unused gates locked?	Gates are damaged but are still able to be locked using chain and pad lock.
X		Gate locks/chains are in good operation, free of rust and undamaged?	
X		Access roads in good condition?	Road is in fair condition. Road is mostly covered with packed snow. Road is sanded/gravelled regularly to provide traction and safety for haulers.

Yes	No	Housekeeping	Note location, nature of violation
X		No trash accumulations on site/offloading area?	
X		Trash containers adequate, convenient, and kept from overflowing?	No trash container on site.
X		Site free of holes and deep ruts that pose a hazard to slips, trips or falls?	
X		Site drainage good, no free standing water that could be pumped out?	Site is frozen over.
X		Traffic signs and pavement markings clear?	
X		Lighting adequate, no dark areas?	
	X	No spills or stains found in wastewater site?	Small spill was discovered on the offloading pad at cell 1. Trevor Gardner discovered spill on December 5 <sup>th</sup> at 3:00pm. Spill was determined to be a mixture of water and diesel oil. Spill was reported to Sandy Beach, pictures were taken and fluid was cleaned up using a absorbable product used to clean up contaminates.
X		Vehicles and equipment positioned out of the way to allow traffic to move around them?	
X		<b>Vegetation Control</b> – Grass is cut, no overgrown area, cattails are under control?	
X		<b>Rodent Control</b> – lagoon cells are free of damage causing rodents? Muskrats/Beavers	

Yes	No	Related Infrastructure	Note location, nature of violation
X		Wastewater offloading area clean, trash containers available and no overflow. No spills?	Could use trash container and shovel at dumping pad to dispose unsuitable materials that get contained on pad.
X		Lighting/reflectors adequate, with no defects?	Could use reflective tape/paint on concrete curb at dumping pad and possibly on gateposts.
X		No spills or stains (oil) found on wastewater offloading pad?	
X		Drivers/operators are aware of unloading procedures?	
X		<b>Isolation valves</b> - accessible, free and in good working order?	Fluid in manhole covers around valves is frozen.
X		<b>Groundwater monitoring wells</b> - clear, visible and free of damage/debris?	
X		<b>Liner Integrity</b> – no visible damage, berms are free of seepage, wet or soft spots?	
	X	<b>Berm Integrity</b> – no visible damage, deep ruts, wash outs, wet or soft spots?	North and East walls of cell 3 are eroded/weathered from high fluid levels. Berms are frozen solid.

Yes	No	Emergency Exits and Muster Area	Note location, nature of violation
X		Are emergency exit routes clear? (Shovelled in the winter)	
	X	Is Muster Area sign clean and visible?	No muster sign on site.
X		No vehicles are blocked in and cannot be moved in the event of an evacuation?	
	X	Emergency plans are up to date, clean and easy to read?	No emergency contact name or number is posted at lagoon site. Should be posted on or by lagoon gate.

Yes	No	Wastewater Hauler Inspections	Note location, nature of violation
	X	Sampling of trucks, tractor-trailers inspected? Number of trucks inspected: _____	No sampling of trucks was completed
	X	Vehicles inspected were in good repair? (Attach copies of inspections reports)	No vehicle inspections completed
	X	Driver was aware of site procedures and emergency contacts?	No drivers inspected.

**Comments:**

With the wastewater in the lagoon completely frozen over it is very difficult to gauge the fluid level. Before the cells were frozen over the fluid level was only inches to reaching the maximum capacity. This December is the highest I've seen the fluid for this time of year. I can't go with out saying, as in last months report, 2016 fall fluid levels were lower at this time (6-10 inches lower) and during the spring season of 2017 the fluid was at the breaching point of the berms. Currently, fluid levels are nearing maximum capacity of what the berms can withhold and are well over the designed free bore allowance of the lagoon.

As a Small Systems Wastewater Operator, I feel the Sandy Beach Lagoon is in critical condition. The potential for an uncontrolled release (spill over) it the spring of 2018 is highly likely. At this point, continuing to add residential wastewater from the Summer Village of Sandy Beach into this lagoon is only going to increase the possibility of a release.

In order to protect the facility (erosion/wash out of berms), protect the environment (release of untreated wastewater into surrounding public and private lands) and protect ~~to~~ the public (people coming into contact with wastewater that is outside the facilities fences) an alternative disposal location for the residential wastewater of Sandy Beach may be required. Temporary closures to the Sandy Beach Lagoon Facility may be necessary to provide this protection to the facility, environment and the public.

Site information in regards to posting ownership signs, wastewater lagoon identification signs, warning signs and posting an emergency contact number at the lagoon site should be looked into.

**Recommended Actions:**

- 1) Discuss the current conditions of the lagoon in regards to the extremely high fluid levels. Discuss the best possibilities moving forward to protect the facility, the environment and the public from the high fluid levels and potential release.
- 2) Secure an alternative disposal location or back up plan of somewhere to discharge/haul the residential wastewater of Sandy Beach. In the event that there is a disruption with discharging additional wastewater into the Sandy Beach Lagoon, the residential properties of Sandy Beach have an alternative wastewater facility that will accept their wastewater.



## INSPECTION REPORTS

- 3) Create a written Action plan to include but not limited to;
  - a. The continuous monitoring of the high fluid levels, eroding berms, potential release.
  - b. What control measures are in place to protect the lagoon (high fluid levels, eroded berms, spring melt)
  - c. The point when discharge/usage into the lagoon stops
  - d. What happens in the event of an uncontrolled/unwanted release
- 4) A formal decision by Lagoon Owners be documented as to whether the lagoon facility stays open for use or alternative hauling locations be used.
- 5) Discuss site information signage with the councils

**Lead Inspectors Signature:**

A handwritten signature in blue ink, appearing to be 'John Paul', is written over a horizontal line.