

SMALL SYSTEMS WASTEWATER REPORT

REPORT DATE	NOVEMBER 30, 2017	INSPECTORS NAMES
LOCATION	S.V. of Sandy Beach, Alberta	Trevor Gardner
REPORT TYPE	Monthly	
<input checked="" type="checkbox"/> INFORMAL	<input type="checkbox"/> FORMAL	

SMALL WASTEWATER SYSTEM - SITE SPECIFICS

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

SMALL WASTEWATER SYSTEM - OPERATION ACTIVITY

1	Flows/volumes - (Fluid transfers between cells, Discharged amounts, Hydraulic loading amounts)
	<ul style="list-style-type: none"> - No fluid transfers between cells this month. - Trucked in wastewater volume totals approximately – 110, 000Imp. Gallons
2	Discharge - (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"> - Application for urgent discharge this fall was not approved by AEP.
3	Chemicals – (state name and quantities of any chemicals used including enzymes)
	<ul style="list-style-type: none"> - No chemicals used in November.
4	Sampling/Testing – (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"> - No Sampling/testing done in November.
5	Other – (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"> - Fluid levels in all the cells are EXTREMELY HIGH and well over the acceptable free bore limits. - As a result of the Urgent Discharge of the lagoon being denied, containing the fluid from encroaching onto/over the berms during the spring melt will be questionable. - 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. - Current fluid levels are 6-8 inches higher now (Nov.2017) then the levels after the discharge in the fall of 2016. - I would strongly suggest alternative disposal sites be looked into and a decision made as to what the fate of the Sandy Beach Lagoon is.

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 stain/spill (2sq/f) was found just outside of the offloading area on the access road. Was assumed to be ATF Fluid, a picture was taken and I cleaned up the spot with a shovel and pail. (Nov. 07, 2017)
X		Vehicles and equipment positioned out of the way to allow traffic to move around them?	
X		Vegetation Control – Grass is cut, no overgrown area, cattails are under control?	
X		Rodent Control – 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		Isolation valves - accessible, free and in good working order?	Isolation valves between cells were not function tested. SB Maintenance is looking for the valve key
X		Groundwater monitoring wells - clear, visible and free of damage/debris?	
X		Liner Integrity – no visible damage, berms are free of seepage, wet or soft spots?	
	X	Berm Integrity – 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, wind and waves hitting the banks. Berm wall between cells 2 and 3 is eroded and undercut leaving a minimum thickness of app. 7 feet in spots.



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:

I am very concerned with the high fluid level. I have a 9-year history watching this lagoon and the fluid levels going up and down during the seasons. Typically during the fall season the fluid is at its lowest level of the year. Over the past years, fluid levels seem to drop less and less during the summer months. This fall (2017) 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.

As the council of Sandy Beach and the Administration are aware of, the Urgent Discharge request for the lagoon was not approved. As a result, the high fluid levels in all 3 cells of the lagoon cannot be pumped down. 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.

Lagoon fluid level – free bore measurements on North and East berms of Cell 3

Fall 2016	Spring 2017	Fall 2017	Spring 2018
Before discharge 2 to 3 inches	During/after spring melt 0 to 1 Inch	Before freeze up 2 to 3 inches	??????????????
After discharge 8-10 inches	Encroaching and splashing onto the top of NE berms	Splashing onto the top of berm during windy days	

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) Meet with Joint Lagoon Committee to discuss the non-approval of the Urgent Discharge Request. Discuss the current conditions of the lagoon in regards to the extremely high fluid levels. Discuss the best possibilities moving forward to protect the lagoon and surrounding environment from the high fluid levels.



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- 2) Secure an alternative disposal location or back up plan of somewhere to discharge/haul the residential wastewater of Sandy Beach. Continuing to add fluid to the lagoon is only going to lead to a worst situation with high levels then the spring of 2017 did.
- 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 emergency release
- 4) Discuss site information signage with the councils

Lead Inspectors Signature:

A handwritten signature in blue ink is written over a horizontal line. The signature is cursive and appears to read 'Tommy L. Smith'.