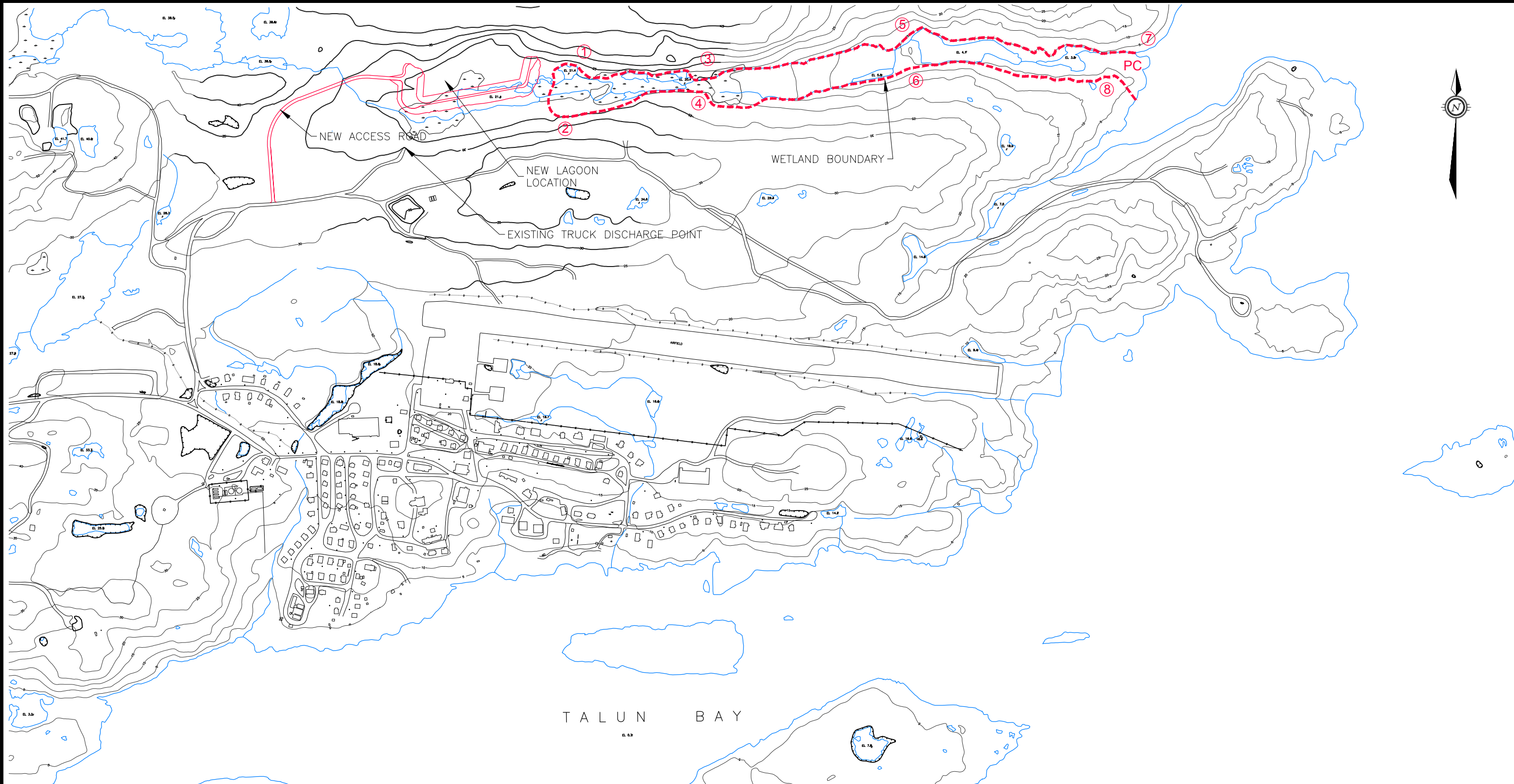


Hamlet of Repulse Bay Water Licence No. 3BM-REP0409
Response to AANDC Review Comments, September 19, 2014

Item	Reference	Issue	Comment	Recommendation	Licensee Response
1	140325-3BM-REP0409 Facility Assessment and Design Brief Jan 10 13-Final-ILAE	Potential for fuel leakage at water truck fill station	The Pump house fuel tanks are filled from outside via fuel lines that pass through the interior spill containment basin. At least one gasket along this line is missing, allowing for a potential spill should the main tank leak.	Operation and Maintenance Plan should include routine inspection and maintenance of the fuel line and spill containment basin. Any refueling operation should include secondary containment and/or drip pans/trays.	The O&M Plan for the new water treatment system will include routine inspection and maintenance of the fuel line and spill containment basin, and operation to include secondary containment. The frequency of fuel tank refill has decreased with the connection of the pumphouse to the community power grid, reducing the risk of fuel leakage at the water treatment plant.
2	140325-3BM-REP0409 Facility Assessment and Design Brief Jan 10 13-Final-ILAE	Relocation of access road - new road will cross an existing waterway.	Minor relocation of access road will be required due to increased size of planned water truck fill station. Any road construction runs the risk of blocking or re-routing existing waterways.	Appropriate measures must be taken to ensure proper re-routing and management of existing waterways prior to construction of the new access road.	The modification of the access road is minor and is located on the side of the road opposite the water supply lake. Existing material will be removed and replaced with 300 mm of Granular 'B' and topped with 150 mm of Granular 'A'. Please see Repulse Bay, Nunavut New Water Pump House "Issued for Tender" drawing C1. There will be no existing waterways blocked or re-routed by the access road modifications.
3	140214-3BM-REP0409 1310 Design Brief-ILAE	Slope stability and potential leakage of planned sewage lagoon berms	Geotechnical investigation indicated the potential for thaw settlement of lagoon berms and therefore the risk of tear of any synthetic liners installed.	Measures must be taken to ensure risk of tear and liner and leak of berms is minimal prior to initiating construction of new sewage lagoon. Operation and Maintenance Plan should include a geotechnical inspection annually and appropriate maintenance of lagoon berms. Results should be noted in the annual report.	The O&M Plan for the sewage lagoon will include an annual inspection of the berms by CGS Municipal Engineer using the Annual Report Card. If any issues are found with the berm, appropriate measures will be taken for further study or repair of the berms. The annual berm inspection and any follow-up measure taken will be reported in the Annual Report.
4	140214-3BM-REP0409 1310 Design Brief-ILAE	Sewage sludge management.	Only preliminary suggestions for the management of sludge from the sewage lagoon exist.	The licensee should develop a sludge management plan prior to removal of sludge from sewage lagoon. The development of this plan once submitted, reviewed and approved by the water board will ensure that the sewage lagoon effectiveness will not decrease in the absence of a plan and the increased loading of sludge on the sewage treatment process.	A sludge management plan will be submitted to the NWB for approval six (6) months prior to any plans to remove sludge from the new sewage lagoon.
5	Annual Reports	Monitoring results from the Monitoring program as stipulated in Part H, of the water licence, are to be reported to the Nunavut Water Board as per Part B Item 1 of Water Licence 3BM-REP0409.	AANDC could find no monitoring results pertaining to the yearly monitoring program.	The proponent has not complied with water licence requirements to report water quality monitoring results to the Nunavut Water Board.	The Licensee will fulfill the requirements of the Monitoring Program and submit results with the Annual Report.
6	140214-3BM-REP0409 1310 Design Brief-ILAE	Wetland area	There seems to be no defined border for the wetland area.	If using the 'wetland' area between the sewage lagoon and the ocean as part of the treatment process, then the licensee should define the borders of their wetland area that is to be part of the sewage treatment facility. The defined borders will make it easier to assess the effectiveness of the use of the 'wetland', by, for example, monitoring effluent quality downstream of the treatment area.	The sewage treatment system was designed by exp Services to include a lagoon and wetlands area. The wetlands are part of the treatment process and as such the Final Discharge Point where effluent must meet compliance is within the wetlands area. Please see the attached Wetlands Location Plan drawing containing GPS coordinates for the boundary of the wetland area. The wetlands are naturally defined by the bedrock present on either side of the wetland area.

7	140214-3BM-REP0409 Solid Waste Management Facility	Confirmation that leachate is no longer escaping from the solid waste landfill facility	The document makes reference to the fact that leachate use to escape to the environment from the landfill facility, then an earthen berm was constructed to stop the leachate.	The licensee should provide evidence that the earthen berm is being effective in its purpose. This evidence should be provided to the board in the form of a study and report within two years of the approval of a new water licence.	A status report on the effectiveness of the leachate diversion berm at the solid waste site will be submitted within two (2) years of the new water licence being issued. This report will include sample analysis from Monitoring Station REP-2 (effluent discharge from the final discharge point of the Solid Waste Disposal Facilities).
8	Water licence application	Operation & Maintenance (O&M) plans	The licensee has indicated that new operation and maintenance plans will be developed for the new facilities.	These plans should be submitted to the Nunavut Water for review and approval at least six months before the operation of any new facility.	The O&M Plan cannot be created prior to construction completion of a new facility. The O&M Plans for the sewage treatment system and new water pumphouse will be submitted to the NWB upon completion.
9	Water licence application	Abandonment & Reclamation/Remediation (A&R) plan for old sewage lagoon	There was not A&R plan with the water licence application for the old sewage lagoon.	The licensee is required to provide an A&R plan to reclaim all facilities under a water licence that are no longer being used, and this would include the old sewage lagoon. The lagoon reclamation plan should be submitted to the Nunavut Water for review and approval at least six months before any reclamation/remediation takes place.	There is no existing sewage lagoon in Repulse Bay. The sewage truck offload discharge area flows into the natural wetlands area. The Licensee will submit an A&R Plan to reclaim the current sewage discharge location to the NWB for approval six (6) months prior to the abandonment of this site.
10	Water licence application	Landfarm Facility	There is no documentation on this facility.	The licensee should provide an O&M plan regarding the Landfarm facility within six months of the approval of a new water licence.	There is no engineered Landfarm in Repulse Bay. The "landfarm" referred to in the Water Licence was intended to temporarily store contaminated soil from the tank farm upgrade. Please refer to the separate letter regarding the "landfarm".
11	Water licence application	Term of licence	Section 25 of the water licence renewal application indicated length of term of water licence renewal was not filled out.	A five year licence renewal is recommended.	A five year licence renewal is being requested.

Filename: p:\projects\civil engineering services\207000\ott-00207086-a0 - sewage lagoon upgrades\repulse bay, nu - gnd - drawings\sketches and figures\monitoring locations.dwg
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References: REPULSE-2-3-4-TOPO.dwg



WETLAND BOUNDARIES

LOCATION NO.	LATITUDE	LONGITUDE	LOCATION NO.	LATITUDE	LONGITUDE	LOCATION NO.	LATITUDE	LONGITUDE
1	66°31'32.16" N	86°12'59" W	5	66°31'11" N	86°12'29" W	PC	66°30'57" N	86°12'16" W
2	66°31'30" N	86°13'03" W	6	66°31'11" N	86°12'29" W	(POINT OF COMPLIANCE)		
3	66°31'22" N	86°12'48" W	7	66°30'57" N	86°12'14" W			
4	66°31'21" N	86°12'52" W	8	66°30'86.81" N	86°12'17" W			

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scale	NTS	PROJECT:	REPULSE BAY	project no. OTT-00207086A
date	01/12/14	TITLE:		
drawn by	IPC	WETLANDS LOCATION PLAN		