HAMLET OF FORT LIARD

BYLAW NUMBER 133

A by-law of the Hamlet of Fort Liard in the Northwest Territories to regulate the design and installation of water supply and sewage disposal systems owned and operated by persons other than the municipal corporation pursuant to the provisions of the Hamlets Act, R.S.N.W.T., 1988, c. H-1, s.82 and 92.

WHEREAS, the Hamlet of Fort Liard deems it necessary to regulate water supply and sewage disposal systems necessary for the provision of trucked services,

NOW, THEREFORE, THE COUNCIL OF THE HAMLET OF FORT LIARD, at a duly assembled meeting, enacts as follows;

SHORT TITLE

1. This By-law may be cited as the "Water/Sewage Service Standards By-law".

INTERPRETATION

2. In this bylaw:

"Building Facility"	means a fixed building structure used for commercial, government, industrial, non-profit, and residential purposes;
"Council"	means the council of the Hamlet;
"Hamlet"	means the Hamlet of Fort Liard in the Northwest territories;
"Municipal Services"	includes the supply of potable water and the removal and disposal of sewage by, and on behalf of the Hamlet;
"Owner"	means the person who owns the real property;
"Premises"	means the real property owned, used or occupied by a user;
"SAO"	means the Senior Administrative Officer of the Hamlet;
"Schedule"	means a schedule established for the provision of municipal services"
"User"	means any government, industrial, commercial, non-profit, or residential user of municipal services.

TRUCKED WATER AND SEWER SERVICE

3. Scheduled Trucked Service

(1) The S.A.O. shall establish times for the provision of trucked service to each customer or part of the Hamlet.

(2) The Hamlet shall endeavour to provide scheduled trucked service, weather, roads, and vehicle conditions permitting.

(3) Every customer requesting trucked service at a time other than the normally scheduled service shall be levied a fee to recover the Hamlets costs, in addition to the normal service charge, except when the previous scheduled trucked service was not received through no fault of the customer.

4. Installation of Trucked Service Building Facilities

(1) All trucked service building facilities shall be installed by, and at the cost of; the owner and shall remain the property of the owner.

5. Maintenance. Recair and Thawing of trucked Service Buildina Facilities

(1) Every owner shall maintain his trucked service building facilities in proper order and free from leakage or wastage.

(2) The Hamlet may in the case of an emergency, repair any trucked service building facilities and the cost of such repair work shall be levied on the owner.

6. ecifications. Desian Accroval and Inscection or Trucked Service Buildina Facilities

(1) No trucked service building facilities shall be installed except in accordance with this by-law and the Trucked Water Service Standards in the specifications.

(2) Design plans for trucked service building facilities, which have four (4) or more water closets, showers, or other high volume fixtures shall be:

(a) certified by a Professional Engineer, and

(b) submitted to the S.A.O., and

(c) approved prior to the commencement of construction.

(3) Two sets of 'as built' plans shall be provided when required by the S.A.O. within sixty (60) days of completion of trucked service building facilities.

(4) No trucked service building facilities shall be enclosed, covered and back filled until the work has been inspected and approved by the S.A.O.

(5) All installation, maintenance, repair and disconnection of trucked service building facilities shall be subject to the inspection and approval of the S.A.O..

7. Correction to Nonconforming Trucked Service Building Facilities

(1) Where in the opinion of the S.A.O., existing trucked service building facilities are being operated in contravention of this by-law, including the Trucked Service Water Standards in the specifications, Section 10-14, the S.A.O. shall issue an order to the owner of the trucked service building facilities:

(a) specifying the manner in which the owner is contravening the by-law, and

(b) directing the owner to comply with the by-law, and

(c) specifying the actions to be performed by the owner to comply with the by-law, and

(d) notifying the owner of the time and date by which such action is required to be taken.

8. Number of Trucked Service Building Facilities

(1) No premises shall be supplied with trucked service to more than one water tank and one sewage tank except upon submission of plans for the approval of the S.A.O.

(2) The S.A.O. may allow trucked service to a separate water tank or sewage tank for self-contained units on properties.

9. Access to Trucked Service Building Facilities

(1) The customer shall maintain, at his own expense unimpeded access to the water fill point and sewage pump out point, which shall terminate within two (2) metres of the public roadway, including the removal of ice, snow, water, mud, vehicles, flower beds, pets and yard material.

(2) Where the water fill point or sewage pump out point are not accessible, the S.A.O. shall cause a notice to be left at the premises and the Hamlet offices, indicating the time and reason trucked service could not be provided and the corrective measures required before trucked service will be resumed.

(3) Failure to allow or maintain access shall in addition to the discontinuance of service cause the owner to be levied the cost of one direct return trip by the Hamlet.

(5) Failure of any systems shall in addition to the immediate discontinuance of service cause the owner or occupant to be levied the cost of clean up.

TRUCKED WATER SERVICE STANDARDS

All trucked water service systems shall conform to the Canadian Building and Plumbing Codes unless superseded by this By-law.

10. Access

(1) Unimpeded access, including the removal of mud, ice, snow, water, pets, vehicles, flower beds, stored items, and yard material, to the water fill point shall be maintained. Fill points are not to be located behind homes, or where no vehicle access exists.

(2) The water fill point shall not exceed a distance of 20 feet or 6 meters from the access and must extend from the wall facing the access. The fill point must be secured tightly to the building. The owner or occupant of fill points in excess of 20 feet or 6 meters must obtain written approval from the S.A.O.

(3) The exterior piping, and fill point is to be of metal construction suitable for potable water supply, and have a satisfactory corrosion resistance. Fill points must be fitted with a male 2" (50 mm) cam lock fitting that connects to the truck fill hose outlet.

(4) The water fill point shall be greater than five feet or 1.5 meters in a horizontal distance from the sewage pump-out point straight line access path.

(5) The water fill point shall be of sufficiently small diameter that the sewage pump-out hose can not be inserted.

(6) The water fill point shall be clearly labelled at all times.

11. Size

(1) The water holding tank shall be a minimum of 500 Imperial gallons or 2270 litres in size for dwellings of three bedrooms or less. Larger sized dwellings shall add an additional 800 litres or 176 Imperial gallons per additional bedroom for tank sizing.

(2) Owners of Non residential buildings are required to size water tanks based on Canadian Architectural standards, the expected water consumption, and a water delivery period of four (4) days. Tank volume calculations, and design details are to be submitted to the Hamlet for the S.A.O.'s review. Only upon written approval from the S.A.O. shall a tank for a non residential building be installed.

12. Freeze Protection

(1) The water holding tank shall be housed in an insulated heated portion of a building or have adequate freeze protection installed.

(2) Structural support of the water holding tank shall be sufficient to support one and one-half times the weight of a full water tank.

13. Line and Tank Soecifications

(1) The connection point of the water fill point shall be a minimum of 36" or 914 millimetres and a maximum of 48" or 1,219 millimetres from the ground surface in all seasons.

(2) The water service line shall have a back grade such that the water does not free flow from the tank or sit in the service line, or the water service line shall have a check valve to prevent free flow and a heat tape to prevent freezing.

(3) All tanks must have an overflow discharge pipe. The overflow discharge point shall be installed at the same height as the fill point, a minimum of 12 inches or 305 millimetres in horizontal distance from the flit point. The overflow discharge point shall not exceed 6 feet or 1.5 meters in horizontal distance from the fill point. The discharge point must remain unobstructed from the view of the truck fill operator during the fill procedure.

(4) A red bulb or red globe "full" indicator light shall be connected to a device in the tank and installed near the fill point such that it is visible from the cab of the

delivery truck. The indicator light support shall allow for adequate clearance of the water truck. The red indicator light must be on a separate circuit, and is to illuminate when the tank is full The indicator light is to be weatherproof, and suitable for use during all seasons. The customer is responsible for replacing bulbs, and maintaining the indicator light system as his own expense.

(5) If the water holding tank is elevated, a check valve with adequate freeze protection shall be installed at the line-tank connection point to prevent back flow.

(6) Tanks must not have open lids, nor be of a type with open top. If tanks are located in basements, lids must be fastened and sealed to the tank to prevent flooding. The Hamlet will not be liable for any flooding due to unfastened or inadequately sealed lids, or tank penetrations.

(7) The customer is responsible for all aspects of operation and maintenance of the water storage and fill system. The Hamlet will not be liable for any expenses related to the integrity or performance of the truck fill system. Where the truck fill operator discovers the water storage or fill system are non-functional, the S.A.O. shall cause a notice to be left at the premises and the Hamlet offices, indicating the time and reason trucked service could not be provided and the corrective measures required before trucked service will be resumed.

(8) All overflow and water fill lines shall be insulated with a foil back covered insulation a minimum one and one half inches (I %") or thirty eight millimetres (38 mm) and six feet (6) or one point eight meters (1.8 M) in from the point of penetration of the exterior building envelope.

TRUCKED SEWAGE STANDARDS

All trucked sewage pump-out service Systems shall meet the standards of the National Building and Plumbing Code and other municipal bylaws, unless superseded by this By-law.

14. Access

(1) The owner or occupant shall maintain the vehicle access free of mud, water, ice, snow, pets, vehicles, flower beds, or other obstructions to the sewage pump-out service point. Pump-out points are not to be located behind homes, or where no vehicle access exists.

(2) The sewage pump-out point must be no greater than 4.6 meters or 15 feet from the service vehicle access.

(3) There shall be a minimum of five horizontal feet or 152 centimetres between the connection point for sewage pump-out and the fill point for water such that a crossing of established pathways by connection hose shall not occur.

(4) The sewage pump-out connection fitting shall consist of a 3" (75 mm) female cam lock suitable for use with the pump-out truck adapter on the truck hose. The fitting will be of a greater diameter than that of the water fill point such that a cross-connection can not be made.

(5) The sewage holding tank shall be twice the volume of the water storage tank to accommodate sewage and grey water discharge.

(6) Overflow septic fields, exfiltration pits, or vertical culverts buried in the ground are not permitted after April 1 ,2000. Systems installed and operational prior to this date must meet standards for freeze protection, capacity, and truck connections specifications as outlined in this By-law. Replacement of these systems must be in compliance with this By-law.

(7) The sewage holding tank shall be a minimum of 1,000 imperial gallons or 4,550 litres for new developments, or twice the water tank size (whichever is greater).

15. Structure

(1) Structural support of the sewage holding tank shall be sufficient to support one and one-half times the weight of a full sewage holding tank.

16. Freeze Protection

(1) The sewage holding tank shall be of a suitable material as approved by the S.A.O., shall be well insulated and kept within the heated portion of the building or otherwise heated using heating coils or circulating hot water such that the formation of ice is prevented. The approved heating system and storage tank location shall be approved by the S.A.O. such that buried holding tanks do not create a stability hazard in areas of permafrost.

17. Line and Tank Scecifications

(1) The service pump-out point shall be kept a minimum of 18 inches or 457 millimetres and a maximum of 48 inches or 1,219 millimetres from the ground, including snow and ice accumulations.

(2) The service pump-out point pipe, and cam lock adapter shall end with a 90 degree elbow, and be constructed of an approved material that does not include plastic, or PVC. Galvanized steel or iron are the preferred materials. No other fittings for the sewage storage system shall be of plastic, or PVC material.

(3) The service pump-out point shall be fitted with an approved tightly fitting cap and kept closed at all times except during pump-out.

(4) The sewage holding tank shall have a large watertight manhole with a removable cover such that the owner or occupant may clean and flush the tank. The S.A.O. is authorized to direct that a sewage holding tank shall be cleaned and flushed.

(5) The pump-out line from the service point to the tank shall have at least a 5 degree slope to the building such that no sewage is allowed to stand in the line or drain to the outside of the building and the line within the holding tank shall not exceed a grade of 30 degrees.

(6) The sewage holding tank shall incorporate a vent line of a minimum interior diameter of inches or 75 millimetres such that the tank is vented to the outside of the building or back vented to the highest interior point in the building such that air escape or supply will occur as the tank is being filled or emptied.

(7) The pipe from the sewage pump-out service point to the sewage holding tank shall have an interior diameter of a minimum of 4 inches or 100 millimetres or reduce to 3 inches (75 mm) when the developed length of the sewer pump out is greater than 25' (7.6 M).

(8) If the holding tank is buried, the ground cover shall be sloped such that surface liquids, including run-off or sewage, drain away from the tank, and anchored to concrete pads or pinned to bedrock to prevent floating to the surface.

(9) All holding tanks shall incorporate a blue high level indicator light where required by the S.A.O. A high level switch must be wired in such a way as to cut the power supply to the domestic water pump in the event of a full sewage tank.

(10) When the storage tank elevation is one (1) meter or greater above the road level a valve shall be installed at the point of connection to the sewage pump-out line to prevent a continuous siphon condition.

(11) All sewage pump-out lines shall be rigidly secured or anchored at the point of connection and further to this all lines in excess of three meters (3 m) in

developed length shall be anchored every three meters (3 M). Buried lines do not require anchors except at the point of connection.

(12) The use of chemical toilets and outhouses shall be prohibited.

EXCAVATION. BEDDING AND BACK FILL

19. Excavation

(1) The owner or occupant shall not excavate or have excavated on his behalf any trench under a Hamlet roadway or sidewalk without the authorization of the S.A.O.

(2) Where excavation shall proceed for the purpose of connecting or disconnecting a water or sewer service, the owner or occupant shall have the authorization of the S.A.O. given by the approval.

(3) All blasting or tunnelling excavation shall be done in adherence to the Mining Safety Act of the NWT, the Northwest Territories Industrial Safety Regulations, and shall require written permission from the S.A.O.

(4) All excavation material shall be stockpiled and used for back fill subject to approval by the S.A. O.

20. Bedding and Back fill

(5) Peat or high organic soil, silt-clay or highly compressible materials or other materials which would compromise the stability or drainage of an area shall not be used for foundations, bedding, hunching or back filling.

(6) Where service lines are installed underground, the back fill shall be carefully placed and tamped to a height of 300 millimetres over the top of the pipe and shall be free of stones, boulders, lumps, cinders, frozen earth, water saturated fill, and foreign materials. This material shall be thoroughly tamped with a heavy iron hand tamper or other approved device under and on each side of the pipe or pipe boxes, in layers not exceeding 150 millimetres in thickness, to assure that all spaces under and adjacent to the same are completely filled and well tamped. Above this zone, back filling may be done by machines, however material shall be rolled, not dropped, into trenches and must be compacted in lifts not exceeding 450 millimetres.

(7) Compaction shall be for the full depth of the trench, particularly under access roads, parking lots and driveways.

(8) Back fill and compaction shall be such that natural drainage is not compromised and the adjacent surface area does not deteriorate. This is affected by the mounding of back fill and the placement of excessive fines in the upper layer of the back fill to prevent excessive drainage into the trench. If the stability of adjoining structures, walks, walls or services may be endangered by the work of excavating, adequate underpinning. shoring and bracing shall be provided to prevent damage to, or movement of, any part of the adjoining structure, or the creation of a hazard to the public.

(9) Rock or boulders shall be removed to provide a clearance of at least 150 millimetres below all pipes or pipe boxes.

(10) All water accumulated in the trench shall be disposed of in compliance with all government regulations including but not limited to all environmental protection legislation.

(11) All waste excavation material shall be disposed of in a manner such that the surface drainage is not compromised.

(12) Where Hamlet sidewalks or roadways are dug up, the premise owner or occupant shall use suitable sub-base material compacted to a minimum 95% Proctor Density and reinstate the sidewalk curb or roadway to prevailing Hamlet specifications.

APPLICATION FOR SERVICE

21. All persons requiring Trucked Water and Sewage Service make application and complete a "Customer Service Order" prior to the provision of services. Sufficient time; a minimum of three days, should be allowed for the inspection of facilities to confirm compliance to this bylaw.

22. No Trucked Water and Sewage Services will be provided until:

(1) compliance with this bylaw is confirmed, or

(2) the customer has a council motion approving non-compliance.

LIABILITY

23. No liability will be assumed by the hamlet for damage caused or disruption in service when systems are in non-complience with this By-law

EFFECTIVE DATE

24. This By-law is effective April 20, 2000.

REPEAL

25. By-law 96-83 is repealed.

Read a first time this 16th day of March 2000.

Read a second time this 16th day of March 2000.

Joanne Deneron
Mayor

J{)t1n W. McKee
Senior Administrative Officer

Read a third time and finally passed this 20th day of April 2000.

Joanne Deneron
Mayor

J6hn W. McKee
Senior Adminisrtrative Officer