



# Memorandum

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**To:** Ts'uubaa-asatx First Nation                      **From:** Natalie Alteen, P. Eng.  
**Attn:** Aaron Hamilton  
**Date:** November 21, 2022                              **File No:** 1525-022

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**RE: Ts'uubaa-asatx Water and Sewer Services Fee Law (North Shore Estates), 2023.**

This memo is provided as background information for the Ts'uubaa-asatx First Nation (TSU) as reference to the *Ts'uubaa-asatx Water and Sewer Services Fee Law (North Shore Estates) 2023*. TRUE has compiled the following information to provide an estimate of the annual costs related to operating and maintaining the services of water and sanitary sewer addressed in the above noted Fee Law Report. Additionally, this memorandum serves as an update to the Memorandum prepared by TRUE dated March 11, 2021 and titled *Estimated Phase 1 Operation and Maintenance Costs for Water and Sewer*.

The annual activities and estimated expenses related to maintaining the water and sanitary sewer services to existing Phases 1 and 2, as well as proposed Phase 3 are summarized herein.

## Water Supply

The water distribution system is operated and maintained by a third-party operator retained by TSU. Their scope of work includes the following:

- Bi-weekly: Bacteriological and chlorination residual testing.
- Monthly: Lift station generator inspection.
- Annual: Watermain flushing, isolation valve maintenance, and hydrant maintenance.

This scope of work is for Phases 1 and 2. The annual fee for services is \$9,900. Phase 3 will be added to this operation and maintenance schedule following construction. As such, a extrapolated value for this additional operation and maintenance is as follows:

$\$9,900/\text{year} / 55 \text{ lots} = \$180/\text{lot}/\text{year}$

Extrapolated Phase 3 costs =  $32 \text{ lots} \times \$180/\text{lot}/\text{year} = \$5,760$

## Sanitary Sewer Collection

The annual activities and expenses related to maintaining sanitary sewer services to existing Phases 1 and 2 and proposed Phase 3 are estimated below. Based on the hourly rate received from the water system operator in March 2022, TRUE has updated the hourly rate provided in the March 2021 report.

An hourly rate of \$90.00 per hour for a wastewater operator has now been applied to all development phases.

**Inspection and Reporting of Manhole Condition:**

	Phase 1	Phase 2	Phase 3
Hours (per Year)	8	8	8
<b>Total (per Year)</b>	<b>\$720.00</b>	<b>\$720.00</b>	<b>\$720.00</b>

**Flushing of sanitary gravity mains (every 10 years):**

	Phase 1	Phase 2	Phase 3
Length of Pipe (m)	365	720	305
Cost (per m)	\$5.00	\$5.00	\$5.00
<b>Total (per Year - rounded)</b>	<b>\$185.00</b>	<b>\$360.00</b>	<b>\$155.00</b>

**Lift Station and Generator Inspection and Cleaning:**

- 16 hours x \$90.00/hr = \$1,440.00
- \$2,500 in fuel and pump parts
- Total: \$3,940.00 (Updated from Phase 1 Fee Law Report).
- Shared cost for Phases 1-3.

**Pumping Costs:**

Description	<sup>1</sup> Phase 1	Phase 2	Phase 3
Effluent Flow (L/d/lot)	864	864	864
# Lots	26	29	32
Pumping Rate (L/s)	8	8	8
Pumping Hours per Day	0.8	0.87	0.96
Pumping Hours per Year	292	318	351
Pump Wattage (kW)	3.7	3.7	3.7
Total Wattage per Year (kWh)	1,080	1,177	1,299
<sup>1</sup> Energy Price (per kWh)	\$0.095	\$0.095	\$0.095
Annual Power Consumption (\$)	<b>\$103.00</b>	<b>\$112.00</b>	<b>\$124.00</b>
<sup>1</sup> Daily Connection Charge (\$)	\$0.2229	\$0.2229	\$0.2229
<sup>2</sup> Annual Connection Charge (\$)	<b>\$82.00</b>	\$0.00	\$0.00
<b>Total per Year (\$)</b>	<b>\$185.00</b>	<b>\$112.00</b>	<b>\$124.00</b>

<sup>1</sup>Phase 1 updated costs based on 2022 BC Hydro rates.

<sup>2</sup>Annual connection charge updated from Phase 1 Fee Law Report. To be updated as required with BC Hydro rate increases.

**Estimated Total Annual Cost of Supplying Water and Sewer Service to existing Phases 1 and 2 and Proposed Phase3:**

Description	Estimated Costs		
	Phase 1	Phase 2	Phase 3
Water System Operation and Maintenance	\$4,680.00	\$5,220.00	\$5,760.00
Inspection and Reporting of Manhole Condition	\$720.00	\$720.00	\$720.00
Flushing of sanitary gravity mains	\$185.00	\$360.00	\$155.00
Lift Station and Generator Inspection and Cleaning	\$1,178.00	1,313.00	\$1,449.00
Pumping Costs	\$185.00	\$112.00	\$124.00
<b>Total (rounded)</b>	<b>\$7,000.00</b>	<b>\$7,800.00</b>	<b>\$8,200.00</b>

\*Extrapolated value

Based on the above, TRUE estimates that the TSU should expect to spend \$14,800.00 per year for operation and maintenance as it relates to existing Phases 1 and 2.

It should be noted that the above figure does not include any reserves for the eventual replacement or renewal of infrastructure at the end of its service life.

Regards,



Natalie Alteen, P. Eng.

NA/su



## **Ts'uubaa-asatx Water and Sewer Services Fee Law (North Shore Estates), 2023**

Council of Ts'uubaa-asatx proposes to enact *Ts'uubaa-asatx Water and Sewer Services Fee Law (North Shore Estates), 2023* (the "**Law**"). Below is a description of the key elements of the Law. This document does not describe every provision contained in the Law. For a full understanding of the Law, readers are encouraged to review the entire Law, a copy of which is available at <https://www.lakecowichanfn.ca/> and use this document as a guide only.

### **Application**

The Law authorizes Council to levy fees for the provision of water and sewer services to the residents of Phases 1, 2 and 3 of North Shore Estates ("**NSE**"), the boundaries of these three phases are outlined by dotted lines on the sketch plan attached as Schedule I to the Law. The Law does not apply to any other occupants on Ts'uubaa-asatx reserve other than the residents of NSE.

This Law repeals *Ts'uubaa-asatx Water and Sewer Services Fee Law (North Shore Estates), 2021* which applies only to Phase 1 of North Shore Estates.

### **Administration**

The tax administrator for Ts'uubaa-asatx is responsible for overseeing the administration and enforcement of this Law. The tax administrator may, with the permission of the Operations Manager or Council, if the same person holds both positions of tax administrator and Operations Manager, assign the performance of his or her duties under this Law to other persons working for Ts'uubaa-asatx.

### **Revenues and Expenditures**

All monies collected pursuant to this Law may be spent on the provision of water and sewer services to NSE and for no other purpose.

### **Fees**

Ts'uubaa-asatx has entered into a servicing agreement with the Town of Lake Cowichan (the "**Town**"). Pursuant to the servicing agreement, the Town agrees to provide sewer and water services (and other services) to NSE and Ts'uubaa-asatx agrees to pay the annual fees charged by the Town to "outside users" under the applicable Town sewer and water bylaws from time to time, except that during construction, for a period of six months or until an occupancy permit is issued, whichever is earlier, the fee payable for water services is calculated based on the single-family unit rate (or its equivalent) prescribed by the Town water bylaw from time to time.

Pursuant to the Law, Ts'uuba-asatx will charge residents of NSE the same water and sewer fees payable by Ts'uubaa-asatx to the Town pursuant to the servicing agreement, plus a surcharge. This surcharge will be 10% of those fees for 2023, and increase by 1% each subsequent year until 2028 when the surcharge charge will remain at 15%. This surcharge is intended to cover Ts'uubaa-asatx's administration costs and the projected annual repair and maintenance costs of the sewer and water infrastructure installed by Ts'uubaa-asatx to service NSE and future developments.

The annual services fee must be included in the annual property tax notices and will have the same due date as property taxes, unless a different due date is stipulated in the notices.

**Penalties, Interest and Enforcement**

Penalties and interest will apply to late payments.

Ts'uubaa-asatx has the legal right to pursue recovery of any overdue fees in the same manner as if they were a debt owing.

In accordance with the standards prescribed by the First Nations Tax Commission, the Law prohibits Ts'uubaa-asatx from discontinuing the provision of water service to a residential dwelling even if fees are overdue.